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Abatement of Air Pollution
Inclusive Sections
§§ 22a-174-1—22a-174-200

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Abatement of Air Pollution

Sec. 22a-174-1. Definitions

Except as may otherwise be provided, as used in Section 22a-174-1 to 22a-174-200, inclusive, of the Regulations of Connecticut State Agencies, the following definitions apply. Unless otherwise indicated, references to the Code of Federal Regulations mean the Code of Federal Regulations in effect as of March 15, 2002:

(1) "Act" means the Federal Clean Air Act, 42 USC Sections 7401 to 7671q and Public Law 101-549.

(2) "Actual emissions" has the same meaning as in 40 CFR 51.165(a)(1)(xii)(A) to (E), inclusive.

(3) "Administrator" means the Administrator of the United States Environmental Protection Agency.

(4) "Affected state or states" means the Commonwealth of Massachusetts, the States of New York, Rhode Island and any other state located within fifty (50) miles of a Connecticut Title V source.

(5) "Air pollutant" means dust, fumes, mist, smoke, other particulate matter, vapor, gas, aerosol, odorous substances, or any combination thereof, but does not include: Carbon dioxide, except in accordance with regulations adopted pursuant to sections 22a-174d, 22a-174j, or 22a-200b of the Connecticut General Statutes; the noble gases (helium, neon, argon, krypton, xenon or radon); uncombined water vapor or water droplets; molecular hydrogen expressed as H2; or molecular oxygen expressed as O_2 or nitrogen.

(6) "Air pollution" means the presence in the ambient air of one or more air pollutants or any combination thereof in such quantities and of such characteristics and duration as to be, or likely to be, injurious to public welfare or the environment, to the health of human, plant or animal life, or to property, or as unreasonably to interfere with the enjoyment of life and property.

(7) "Air pollution control equipment" means any equipment which is designed to reduce emissions of air pollutants from a stationary source.

(8) "Allowable emissions" means "allowable emissions" as defined in 40 CFR 51.165(a)(1)(xi).

(9) "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.

(10) "AAQS" or "ambient air quality standard" means any standard that establishes the largest allowable concentration of a specific pollutant in the ambient air as established by the Administrator in 40 CFR 50 or by the commissioner in section 22a-174-24 of the Regulations of Connecticut State Agencies.

(11) "Architectural coating" means a coating used for residential or commercial buildings and their appurtenances, or industrial buildings, or other outdoor structures.

(12) "ASTM" means the American Society for Testing and Materials.

(13) "Attainment" means that the quality of the ambient air, as determined by the Administrator, meets the Ambient Air Quality Standards for a given air pollutant.

(14) "Attainment area" means a geographic area which has been designated by the Administrator as attainment pursuant to 40 CFR 81 in accordance with the provisions of 42 USC 7407.

(15) "Baseline concentration" means "baseline concentration" as defined in 40 CFR 51.166(b)(13)(i) to (ii)(b), inclusive.

(16) "Best Available Control Technology" or "BACT" means an emission limitation, including a limitation on visible emissions, based upon the maximum degree of reduction for each applicable air pollutant emitted from any proposed stationary source or modification which the commissioner, on a case-by-case basis, determines is achievable in accordance with section 22a-174-3a of the Regulations of Connecticut State Agencies. BACT may include, without limitation, the application of production processes, work practice standards or available methods, systems, and techniques, including fuel cleaning or treatment, the use of clean fuels, or innovative techniques for the control of such air pollutant.

(17) "Begin actual construction" means "begin actual construction" as defined in 40 CFR 51.165(a)(1)(xv).

(18) "Biodiesel fuel" means the liquid fuel composed of mono alkyl esters of long-chain fatty acids derived from vegetable oils or animal fats, which fuel conforms to ASTM D6751-08, Standard Specification for Biodiesel Fuel Blend Stock for Middle Distillate Fuels, or the current active version thereof.

(19) "Brush" means shrubs, vegetation or prunings, the diameter of which is not greater than three inches at the widest point.

(20) "BTU" means British thermal unit, which is the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit.

(21) "Burn-off oven" means a device that is used to remove coating, varnish, resin, or other material from metal parts or surfaces by the application of heat, provided that such device is:

(A) An indirect-fired unit;

(B) Equipped with a secondary chamber or afterburner that operates at a minimum temperature of 1400 degrees Fahrenheit; and

(C) Operated and maintained in accordance with the manufacturer's specifications and written recommendations.

(22) "Carbon dioxide equivalent emissions" or "CO_2e" means an amount of GHGs emitted, computed as follows:

(A) Individually, for each of the six component gases, multiply the mass amount of emissions of the component gas (tons per year) by the gas's associated global warming potential identified in 40 CFR 98, Table A-1 (October 30, 2009); and

(B) Sum each of the six values resulting from the calculation in subparagraph (A) of this subdivision.

(23) "CAS Number" means the number given to a compound by the American Chemical Society's Chemical Abstract Service.

(24) "CFR" means the Code of Federal Regulations.

(25) "Combustion efficiency" means the percentage calculated in accordance with the following formula:

$$CE = [CO_2] / [CO] + [CO_2] \ (100)$$

where: CE = Combustion efficiency in percent;

CO_2 = Amount of carbon dioxide;

CO = Amount of carbon monoxide; and

CO and CO_2 are both measured in volume units.

(26) "Commence operation" means the owner or operator of the stationary source has begun or caused to begin, any activity which has the potential to emit any air pollutant.

(27) "Commence construction" means that the owner or operator of the proposed stationary source or proposed modification to a stationary source has all necessary permits or approvals required pursuant to the Act, any regulations adopted thereunder and section 22a-174-1, et seq. of the Regulations of Connecticut State Agencies, and has either:

(A) Begun, or caused to begin, a continuous program of physical on-site construction of the source, subject to the permit issued by the commissioner, without any breaks in such construction of more than eighteen months; or

(B) Entered into binding agreements or contractual obligations to undertake actual construction of the source within a reasonable time, which cannot be canceled or modified without substantial economic loss to the owner or operator.

(28) "Commissioner" means the Commissioner of Energy and Environmental Protection, or any member of the Department or any local air pollution control official or agency authorized by the commissioner, acting singly or jointly, to whom the commissioner assigns any function arising under the provisions of these regulations.

(29) "Construction" means "construction" as defined in 40 CFR 51.165 (a)(1)(xviii).

(30) "CEM" or "Continuous emission monitoring" means a system for continuously measuring the emissions of any pollutant from a stationary source.

(31) "CERC" or "Continuous emissions reduction credit" means a real, quantifiable, surplus, permanent and enforceable reduction of an air pollutant at a source which is:

(A) Certified by the commissioner through a SIP approved plan; and

(B) Generated over an uninterrupted period of time in increments of one ton of a specified air pollutant.

(32) "Criteria air pollutant" means any air pollutant for which an ambient air quality standard has been established by the Administrator in accordance with Section 107 of the Act.

(33) "Department" means the Department of Energy and Environmental Protection.

(34) "Dioxin emissions" means the total emissions of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) converted to the toxic equivalence amount of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). For the purposes of this definition, the commissioner shall determine the toxic equivalence amount of 2,3,7,8-TCDD by

multiplying the concentration of each isomer in the sample by the appropriate Toxic Equivalency Factor (TEF) set forth in Table 1-1 and then adding the products to obtain the total dioxin emissions in the sample.

Table 1-1

FORM OF DIOXIN EMISSIONS	TEF
monochlorodibenzo-p-dioxin	0
dichlorodibenzo-p-dioxin	0
trichlorodibenzo-p-dioxin	0
2,3,7,8-tetrachlorodibenzo-p-dioxin	1.0
Other tetrachlorodibenzo-p-dioxins	0.01
1,2,3,7,8-pentachlorodibenzo-p-dioxin	0.5
other pentachlorodibenzo-p-dioxins	0.005
1,2,3,4,7,8-hexachlorodibenzo-p-dioxin	0.04
1,2,3,6,7,8-hexachlorodibenzo-p-dioxin	0.04
1,2,3,7,8,9-hexachlorodibenzo-p-dioxin	0.04
other hexachlorodibenzo-p-dioxins	0.0004
1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin	0.001
other heptachlorodibenzo-p-dioxins	0.00001
octachlorodibenzo-p-dioxin	0
Monochlorodibenzofuran	0
Dichlorodibenzofuran	0
Trichlorodibenzofuran	0
2,3,7,8-tetrachlorodibenzofuran	0.1
other tetrachlorodibenzofurans	0.001
1,2,3,7,8-pentachlorodibenzofuran	0.1
2,3,4,7,8-pentachlorodibenzofuran	0.1
other pentachlorodibenzofurans	0.001
1,2,3,4,7,8-hexachlorodibenzofuran	0.01
1,2,3,6,7,8-hexachlorodibenzofuran	0.01
2,3,4,6,7,8-hexachlorodibenzofuran	0.01
1,2,3,7,8,9-hexachlorodibenzofuran	0.01
other hexachlorodibenzofurans	0.0001

FORM OF DIOXIN EMISSIONS	TEF
1,2,3,4,6,7,8-heptachlorodibenzofuran	0.001
1,2,3,4,7,8,9-heptachlorodibenzofuran	0.001
other heptachlorodibenzofurans	0.00001
Octachlorodibenzofuran	0

(35) "Discharge point" means any stack or area from which a hazardous air pollutant is released into the ambient air.

(36) "Dispersion technique" means "dispersion technique" as defined in 40 CFR 51.100(hh).

(37) "Distillate oil" or "distillate fuel oil" means any fuel oil of No. 1 or No. 2 grades, as defined by ASTM D396-09, Standard Specification for Fuel Oils, or the current active version thereof.

(38) "DERC" or "Discrete emission reduction credit" means the real, quantifiable, surplus, permanent, and enforceable reduction of an air pollutant at a source, which is:

(A) Certified by the commissioner through a SIP approved plan; and

(B) Generated during a specified period of time.

(39) "Emission" means the release or discharge of an air pollutant into the ambient air from any source.

(40) "Emission limitation" and "Emission standard" means "emission limitation" and "emission standard" as defined in 40 CFR 51.100(z).

(41) "Emission unit" means "emission unit" as defined in 40 CFR 51.165(a)(1)(vii).

(42) "ERC" or "Emission reduction credit" means real, quantifiable, surplus, permanent, and enforceable reductions of air pollutant emissions from a source, when such reductions are certified by the commissioner through a SIP approved plan and recorded as CERCs or DERCs.

(43) "Excessive concentration" means "excessive concentration" as defined in 40 CFR 51.000(kk).

(44) "Federally enforceable" means "federally enforceable" as defined in 40 CFR 51.165(a)(1)(xiv).

(45) "Flare" means an apparatus, device, process, or procedure for the burning of flammable gases or vapors at or near the exit of a stack, flue or vent.

(46) "Fuel-burning equipment" means any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power.

(47) "Fugitive dust" means solid airborne particulate matter emitted from any source other than through a stack.

(48) "Fugitive emissions" means fugitive dust or those emissions that cannot reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

(49) "Good engineering practice (GEP) stack height" means "good engineering practice

(GEP) stack height" as defined in 40 CFR 51.100(ii).

(50) "Greenhouse gases" or "GHGs" means the aggregate of the following six component gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_20), sulfur hexafluoride (SF_6), any hydroflourocarbon (HFC) or any perfluorocarbon (PFC).

(51) "Hazardous air pollutant," "Federal hazardous air pollutant" or "HAP," except as otherwise provided in section 22a-174-29 of the Regulations of Connecticut State Agencies, means any air pollutant listed in section 112(b)(1) of the Act, inclusive of deletions and additions set out in 40 CFR Part 63, Subpart C, as may be amended from time to time.

(52) "Hazard limiting value" or "HLV" means the highest acceptable concentration of a hazardous air pollutant in the ambient air, pursuant to section 22a-174-29 of the Regulations of Connecticut State Agencies. The primary use of this term is in the derivation of the maximum allowable stack concentration for a source.

(53) "Heat input" means the total gross calorific value of all fuels burned, measured in BTU by ASTM Method D2015-66, D240-64, or D1826-64, using the highest heating value of each fuel.

(54) "Incinerator" means any device, apparatus, equipment, slab, or structure used for destroying, reducing, or salvaging, by fire or heat, any material or substance including, but not limited to, refuse, rubbish, garbage, trade waste, debris or scrap; or facilities for cremating human or animal remains provided that, for the purposes of this definition, sources primarily combusting the following used oil types are not incinerators:

(A) Used oil meeting the specifications of 40 CFR 279.11; or

(B) Used oil burned in space heaters meeting the requirements of 40 CFR 279.23.

(55) "Indian governing body" has the same meaning as in 40 CFR 51.166(b)(28).

(56) "Indian reservation" means "Indian reservation" as defined in 40 CFR 51.166(b)(27).

(57) "Indirect-fired unit" means a unit in which the flame does not come into direct contact with the metal parts or surfaces to be cleaned.

(58) "Indirect source" means any building, structure, facility installation, or combination thereof, that has or leads to associated activity as a result of which an air pollutant is or may be emitted. Indirect sources include, but are not limited to: shopping centers, sports complexes, drive-in theaters or restaurants, parking lots or garages, residential, commercial, industrial or institutional buildings or developments, amusement parks and other recreational areas, highways, and airports.

(59) "Indirect source construction permit" means a permit issued by the commissioner authorizing the construction of an indirect source.

(60) "Innovative control technology" means "innovative control technology" as defined in 40 CFR 51.166 (b)(19).

(61) "Internal offset" means any federally enforceable reduction of actual emissions from one or more stationary sources on the same premises which are used to offset potential emissions increases from a proposed stationary source on such premises in accordance with the provisions of section 22a-174-3a(*l*) of the Regulations of Connecticut State Agencies.

(62) "LAER" or "Lowest Achievable Emission Rate" means "lowest achievable emission rate" as defined in 40 CFR 51.165(a)(1)(xiii).

(63) "Major modification" means "major modification" as defined in 40 CFR 51.165(a)(1)(v), provided that, for the purposes of this definition, the term "significant" has the same meaning as in 40 CFR 51.166(b)(23)(i) and:

(A) The values for nitrogen oxides as an ozone precursor and volatile organic compounds as an ozone precursor are each twenty-five (25) tons per year, and

(B) Asbestos, beryllium and vinyl chloride are excluded.

(64) "Major source baseline date" means January 6, 1975 for particulate matter and sulfur dioxide; February 8, 1988 for nitrogen dioxide; and October 20, 2010 for $PM_{2.5}$.

(65) "Major stationary source" means "major stationary source" as defined in 40 CFR 51.165(a)(1)(iv), provided that:

(A) A stationary source that emits or has the potential to emit twenty-five (25) tons per year of volatile organic compounds or nitrogen oxides as an ozone precursor in any severe ozone nonattainment area is a "major stationary source;" and

(B) A stationary source that emits or has the potential to emit fifty (50) tons per year of volatile organic compounds or nitrogen oxides as an ozone precursor in any serious ozone nonattainment area is a "major stationary source."

(66) "Malfunction" means "malfunction" as defined in 40 CFR 60.2.

(67) "MACT" or "Maximum achievable control technology" means a method of achieving an emission limitation or reducing the emission of hazardous air pollutants as determined by the commissioner pursuant to section 22a-174-33(e) of the Regulations of Connecticut State Agencies or by the Administrator pursuant to 40 CFR 63.

(68) "Maximum allowable stack concentration" or "MASC" is the maximum allowable concentration of a hazardous air pollutant in the exhaust gas stream at the discharge point of a stationary source under actual operating conditions.

(69) "Maximum capacity" means the design maximum hourly capacity of a stationary source or highest demonstrated hourly capacity of a stationary source, whichever is greater, multiplied by 365 days per year and 24 hours per day, or some other time period as may be accepted by the commissioner.

(70) "Maximum uncontrolled emissions" means the rate of emissions for a source, determined without the application of air pollution control equipment unless the source is incapable of being operated without the air pollution control equipment, of a particular air pollutant where such rate is calculated using:

(A) The maximum capacity of the source unless the commissioner determines that the source is physically unable to operate at that capacity or unless the maximum capacity is limited by restrictions on production rates, hours of operation, or types of materials processed, stored or combusted either through permit conditions or other order of the commissioner; and

(B) Information from the Compilation of Air Pollutant Emission Factors (AP-42) published by the U. S. Environmental Protection Agency, relevant source test data or other

information deemed more representative by the commissioner.

(71) "Minor permit modification" means a change to a permit that is required for the permittee to lawfully engage in any of the activities or proposed activities at a stationary source as identified in section 22a-174-2a(e) of the Regulations of Connecticut State Agencies.

(72) "Minor source" means any stationary source which emits, and has the potential to emit, pollutants at rates or in amounts lower than those specified in subdivision (63) of this section.

(73) "Minor source baseline date" means June 7, 1988 for particulate matter, August 24, 2014 for fine particulate matter (PM2.5), December 17, 1984 for sulfur dioxide and June 7, 1988 for nitrogen dioxide.

(74) "Mobile source" means a source designed or constructed to move from one location to another during normal operation except portable equipment and includes, but is not limited to, automobiles, buses, trucks, tractors, earth moving equipment, hoists, cranes, aircraft, locomotives operating on rails, vessels for transportation on water, lawnmowers, and other small home appliances.

(75) "Modification" or "modified source" means with respect to a stationary source, any physical change or change in the method of operation that would result in an exceedance of the allowable emissions of any individual air pollutant, any increase in the maximum capacity, or any potential emissions of any individual air pollutant not previously emitted, except that:

(A) Routine maintenance, repair or replacement at a stationary source shall not be considered a physical change; and

(B) The following shall not be considered a change in the method of operation:

(i) any increase in the production rate, if such increase does not exceed the operating design capacity of the affected facility and such increase does not cause or allow an exceedance of the rates or emission limits authorized by a permit, order, or judgment for such a source, or

(ii) any increase in hours of operation and such increase does not cause or allow an exceedance of the rates or emissions limits authorized by a permit, order, or judgment for such source.

(76) "Monitoring" means any action or procedure that is used to determine actual emissions from a stationary source or compliance with the requirements of any permit, order, statute or regulation.

(77) "Net emissions increase" means "net emissions increase" as defined in 40 CFR 51.165 (a)(1)(vi) provided that:

(A) For the purposes of this definition, the phrase "this section" found in 40 CFR 51.165(a)(1)(vi)(C)(2) refers to sections 22a-174-3a(k) and (*l*) of the Regulations of Connecticut State Agencies, and

(B) Any increases or decreases in actual emissions at a stationary source are creditable only if such increases or decreases occurred within the previous five (5) years of the present

modification.

(78) "Nitrogen oxides" or "NO_x" means the sum of all oxides of nitrogen, expressed as nitrogen dioxide.

(79) "Non-attainment" means that the quality of the ambient air, as measured by the commissioner, fails to meet any Ambient Air Quality Standard for a given pollutant for which such standards have been established by the United States Environmental Protection Agency.

(80) "Non-attainment air pollutant" means the particular air pollutant for which an area is designated as a non-attainment area, except that volatile organic compounds and nitrogen oxides are non-attainment air pollutants for ozone non-attainment areas.

(81) "Non-attainment area" means a geographic area which has been designated as nonattainment pursuant to 40 CFR 81 in accordance with the provisions of 42 USC 7407 (section 107 of the Act).

(82) "Non-minor permit modification" means a change to a permit that is required for the permittee to lawfully engage in any of the activities or proposed activities at a stationary source as identified in section 22a-174-2a(d) of the Regulations of Connecticut State Agencies.

(83) "Offset fill pipe" means a fill pipe that has bends or angles such that a straight sleeve cannot be installed.

(84) "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

(85) "Open burning" means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the ambient air without passing through a stack or flue.

(86) "Operator" means the person or persons who are legally responsible for the operation of a source of air pollution.

(87) "Organic compounds" means any chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.

(88) "Particulate matter" or "PM" means any material, except water in uncombined form that is or has been airborne and exists as a liquid or a solid in the ambient air.

(89) "PM 2.5" means particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method set forth in 40 CFR 50, Appendix L, and designated as a reference method in accordance with 40 CFR 53 or by an equivalent method approved by the Administrator in accordance with 40 CFR 53.

(90) "PM_{10}" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method set forth in 40 CFR 50, Appendix J, and designated as a reference method in accordance with 40 CFR 53 or by an equivalent method approved by the Administrator in accordance with 40 CFR 53.

(91) "Permit" means any license issued pursuant to Chapter 446c of the Connecticut General Statutes.

(92) "Person" means "person" as defined in section 22a-170 of the Connecticut General Statutes.

(93) "Potential emissions" or "potential to emit" means the maximum capacity of a stationary source, including all physical and operational limitations, to emit any air pollutant, including fugitive emissions to the extent quantifiable, provided that:

(A) Any physical limitation on such capacity, not including air pollution control equipment, shall be treated as part of the stationary source as determined by the commissioner or Administrator; and

(B) Any operational limitation on such capacity, including air pollution control equipment, or a restriction on the hours of operation or on the type or amount of material processed, stored or combusted, shall be treated as part of the stationary source if the limitation or restriction is practicably enforceable.

(94) "Practicably enforceable" means:

(A) Any federally enforceable emission limitation or restriction on potential emissions; or

(B) Any emission limitation or restriction on the potential emissions set forth in a permit, order, regulation or statute issued or administered by the commissioner, provided such emission limitation or operational restriction:

(i) identifies the subject stationary source or category of stationary source,

(ii) specifies an emission limitation using a short term emissions rate for such stationary source expressed in pounds per hour, pounds per unit of production or concentration levels sufficient to calculate the actual emissions from such stationary source or specifies an operational restriction for such stationary source such as hours of operation or fuel use restrictions sufficient to calculate the actual emissions from such source,

(iii) specifies appropriate monitoring to determine compliance with such limitation or restriction specified in accordance with subclause (ii) of this subparagraph provided that if a twelve month rolling average is selected, the monitoring shall be CEM or equivalent, and

(iv) if an emission limitation or operational restriction is required to demonstrate that a state or federal standard does not apply, such emission limitation or restriction shall be calculated in accordance with subclause (ii) of this subparagraph and expressed using the shortest technically and economically feasible averaging period, in no case longer than a twelve month rolling average. If a twelve month rolling average is selected, the monitoring shall be CEM or equivalent.

(95) "Premises" means the grouping of all stationary sources at any one location and owned or under the control of the same person or persons.

(96) "Process changes to control air pollution" means any modification that alters or implements production processes or available methods, including fuel switching, systems, techniques, work practice standards, operational standards or a combination thereof which is designed and implemented for the primary purpose of reducing emissions of air pollutants from a stationary source.

(97) "Process source" means any operation, process, or activity except:

(A) The burning of fuel for indirect heating in which the products of combustion do not come in contact with process material;

(B) The burning of refuse; and

(C) The processing of salvageable material by burning.

(98) "Reasonably Available Control Technology" or "RACT" means the lowest emission limitation that a particular stationary source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

(99) "Reconstruct" or "reconstruction" means the renovation or re-building of a stationary source in accordance with the provisions of 40 CFR 60.15. A reconstructed stationary source shall be considered a new stationary source. The use of an alternative fuel or raw material by reason of an order in effect pursuant to sections 2(a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974, or superseding legislation, or by reason of a Natural Gas Curtailment Plan pursuant to the Federal Power Act, or by reason of an order or rule pursuant to section 125 of the Clean Air Act, shall not be considered reconstruction.

(100) "Region" means a Connecticut intrastate Air Quality Control Region or the Connecticut portion of an interstate Air Quality Control Region as defined by the EPA in 40 CFR 81.

(101) "Residual oil" means any fuel oil of No. 4, No. 5, or No. 6 grades, as defined by ASTM D396-09, Standard Specification for Fuel Oils, or the current active version thereof.

(102) "Resources recovery facility" means "resources recovery facility" as defined in section 22a-207(9) of the Connecticut General Statutes.

(103) "Ringelmann chart" means the chart published and described in the U.S. Bureau of Mines Information Circular 8333.

(104) "Secondary emissions" mean "secondary emissions" as defined in 40 CFR 51.165(a)(1)(viii).

(105) "Serious non-attainment area for ozone" means all towns within the State of Connecticut, except those towns located in the severe non-attainment area for ozone.

(106) "Severe non-attainment area for ozone" means the towns of Ansonia, Beacon Falls, Bethany, Bethel, Branford, Bridgeport, Bridgewater, Brookfield, Cheshire, Chester, Clinton, Cromwell, Danbury, Darien, Deep River, Derby, Durham, East Haddam, East Hampton, East Haven, Easton, Essex, Fairfield, Greenwich, Guilford, Haddam, Hamden, Killingworth, Madison, Meriden, Middlebury, Middlefield, Middletown, Milford, Monroe, Naugatuck, New Canaan, New Fairfield, New Haven, New Milford, Newtown, North Branford, North Haven, Norwalk, Old Saybrook, Orange, Oxford, Portland, Prospect, Redding, Ridgefield, Seymour, Shelton, Sherman, Southbury, Stamford, Stratford, Trumbull, Wallingford, Waterbury, Westbrook, West Haven, Weston, Westport, Wilton, Wolcott and Woodbridge.

(107) "Solid waste" means unwanted or discarded materials, including solid, liquid, semisolid, or contained gaseous material.

(108) "Source" means any property, real or personal, which emits or may emit any air

pollutant.

(109) "Stack" means "stack" as defined in 40 CFR 51.100 (ff), provided that stack shall also include a flare.

(110) "Standard conditions" means a dry gas temperature of 68 degrees Fahrenheit and a gas pressure of 14.7 pounds per square inch absolute (20 degrees C, 760 mmHg).

(111) "State" as used in the phrase "any other state" means state, region, territory, commonwealth, military reservation, or Indian reservation.

(112) "State implementation plan" or "SIP" means a plan required by section 110 of the Act which has been approved by the Administrator.

(113) "Stationary source" means "stationary source" as defined in 40 CFR 51.165(a)(1)(i) and (ii), provided that any portable emissions unit which is moved from site to site but remains stationary during operation is a stationary source.

(114) "Stripping facility" means any stationary source, except air pollution control equipment, the primary purpose of which is to remove organic compounds from water, soil or any other material.

(115) "Submerged fill pipe" means any fill pipe the discharge opening of which remains entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid.

(116) "Subregion" means a subdivision of a Region, as determined by the commissioner.

(117) "Tank" means any vessel for containing liquids or gases.

(118) "Title V source" means "Title V source" as defined in 22a-174-33 of the Regulations of Connecticut State Agencies.

(119) "Throughput" means the rate, by volume or mass, of production in a manufacturing process, where the combined quantities of all materials introduced into the process, excluding air and water, are used to determine such rate.

(120) "Total suspended particulate" means particulate matter as measured by the method described in 40 CFR 50, Appendix B.

(121) "Unclassifiable area" means a geographic area which has not been designated either as an attainment area or a non-attainment area pursuant to 40 CFR 81 in accordance with the provisions of section 107 of the Clean Air Act.

(122) "Volatile organic compound" or "VOC" means "volatile organic compound" as defined in 40 CFR 51.100(s), as amended from time to time.

(123) "Waste water separator" means any tank, box, sump, or other container in which any volatile organic compound floating on or entrained or contained in water entering such tank, box, sump, or another container is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.

(124) "Watercourse" means "watercourses" as defined in 22a-38(16) of the Connecticut General Statutes.

(Effective August 23, 1996; Amended December 22, 1997; Amended March 15, 2002; Amended April 4, 2006; Amended June 12, 2009; Amended February 1, 2010; Amended January 28, 2011; Amended September 10, 2012; Amended April 15, 2014; Amended October 5, 2017; Amended

November 18, 2020; Amended March 5, 2021; Amended November 13, 2023; Amended March 14, 2024)

Sec. 22a-174-2. Repealed

Repealed March 15, 2002.

Sec. 22a-174-2a. Procedural requirements for new source review and Title V permitting

(a) **Signatory Responsibilities**

(1) Any document, such as a permit application, report or certification, submitted to the commissioner shall be signed by any of the following individuals:

(A) For an individual or sole proprietorship: by the individual or proprietor, respectively;

(B) For a corporation: by any officer in charge of a principal business function, an employee who performs similar policy or decision-making functions, or a duly authorized representative of such officer or employee, provided that such officer, employee or representative is authorized to execute legally binding documents on behalf of such corporation;

(C) For a partnership: by a general partner;

(D) For a municipality: by the ranking elected official or the person authorized as the principal executive officer by charter or resolution of the board of selectmen or town council or other governing body, or a duly authorized representative of such municipality if:

(i) The ranking elected official or person authorized as principal executive officer gives a delegation of signatory authority in writing to the duly authorized representative,

(ii) such duly authorized representative is responsible for the overall operation of the operating facility applying for or subject to a permit, and

(iii) the delegation of signatory authority to such duly authorized representative is submitted to and approved in advance by the commissioner in writing prior to the submission of any document;

(E) For a federal entity: by the principal executive officer, statutorily authorized official, or by a federal employee or any other representative who has received legal delegation of authority. For the purpose of this subparagraph, a principal executive officer of a federal agency or department includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency or department;

(F) For a state entity: by the statutorily authorized official, ranking elected official or principal executive officer;

(G) For a limited liability company: by any member, manager, officer, employee or a duly authorized representative of the limited liability company provided that such member, manager, officer or employee or representative is authorized to execute legally binding documents on behalf of such limited liability company;

(H) For a limited liability partnership: by any limited partner, officer, employee or a duly authorized representative of the limited liability partnership provided that such limited partner, officer or employee or representative is authorized to execute legally binding

documents on behalf of such limited liability partnership; or

(I) For any organization not listed above, the commissioner may require the owner or operator of the source to provide adequate documentation that such person is authorized by such organization to execute and deliver in the name of and on behalf of such organization any document set forth in this subdivision.

(2) For purposes of signing any Title V-related application, document, report or certification required by section 22a-174-33 of the Regulations of Connecticut State Agencies, any corporation's duly authorized representative under subdivision (1)(B) of this subsection may be either a named individual or any individual occupying a named position. Such named individual or individual occupying a named position is a duly authorized representative if such individual is responsible for the overall operation of one or more manufacturing, production or operating facilities subject to section 22a-174-33 of the Regulations of Connecticut State Agencies and either:

(A) The facilities employ more than two-hundred fifty (250) persons or have gross annual sales or expenditures exceeding twenty-five (25) million dollars in second quarter 1980 dollars; or

(B) The delegation of authority to the duly authorized representative has been given in writing by an officer of the corporation in accordance with corporate procedures and the following:

(i) Such written authorization specifically authorizes a named individual, or a named position, having responsibility for the overall operation of the Title V premises or activity,

(ii) Such written authorization is submitted to the commissioner and has been approved by the commissioner in advance of such delegation. Such approval does not constitute approval of corporate procedures, and

(iii) If a duly authorized representative is a named individual in an authorization submitted under subclause (ii) of this subparagraph and a different individual is assigned or has assumed the responsibilities of the duly authorized representative, or, if a duly authorized representative is a named position in an authorization submitted under subclause (ii) of this subparagraph and a different named position is assigned or has assumed the duties of the duly authorized representative, a new written authorization shall be submitted to the commissioner prior to or together with the submission of any application, document, report or certification signed by such representative.

(3) A permit application or other related document shall be considered insufficient by the commissioner unless the applicant provides all required signatures in accordance with this subsection.

(4) Notwithstanding the requirements of section 22a-3a-5(a)(2) of the Regulations of Connecticut State Agencies, where a permit application, permit or other documentation requires a certification, the appropriate individual as specified in this subsection, and the individual or individuals responsible for actually preparing any document to which the certification applies, shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals

responsible for obtaining the information to determine that the information is true, accurate and complete, and each shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(5) An individual having overall responsibility for environmental matters for a Title V source shall not sign Title V permit applications or Title V associated reports or certifications unless such individual has responsibility for the overall operation of the Title V source.

(b) **Public Notice**

(1) When proposing to issue a general permit, the commissioner shall comply with the requirements for notice and opportunity for public comment pursuant to section 22a-174(k)(2) of the Connecticut General Statutes.

(2) With respect to public notice of any application for a permit, other than a general permit, the applicant shall comply with the requirements of section 22a-6g of the Connecticut General Statutes and the following:

(A) The commissioner may require the applicant to publish notice of the application in media that serves the needs of communities and representatives not served by traditional media in addition to a newspaper with substantial circulation in the area in which the source intends to operate, and the commissioner may require the notice to be published in languages other than English; and

(B) In the event the commissioner requires compliance with subparagraph (A) of this subdivision, the applicant shall submit to the commissioner a certified copy of such notice as it appeared in such other media no later than twenty (20) days after the date such notice was published.

(3) With respect to notice of tentative determination for any application for a permit, other than a general permit, the applicant shall comply with the requirements of section 22a-6h of the Connecticut General Statutes. In addition to the requirements of section 22a-6h of the Connecticut General Statutes, such notice shall include the following statement, unless such notice is for a minor permit modification pursuant to subsection (e) of this section, that:

"Interested persons have thirty (30) days from publication of this notice to submit comments in writing to the Department of Energy and Environmental Protection, Bureau of Air Management or request a public hearing concerning the commissioner's tentative determination to approve or deny the permit application, in accordance with sections 22a-3a-5(b) and 22a-174-2a(c) of the Regulations of Connecticut State Agencies."

(4) For any application for a permit or modification thereto, the commissioner may

require the applicant to comply with section 22a-6*l* of the Connecticut General Statutes.

(5) For any permit application pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies, the commissioner shall forward a copy of the notice of tentative determination to:

(A) The individuals who request such notice;

(B) The chief elected official of the municipality where the stationary source is or is proposed to be located;

(C) The chief executive officer of the municipality where the source is or is proposed to be located;

(D) The appropriate Connecticut regional planning agency;

(E) Any federally recognized Indian governing body whose lands, or air quality, may be affected by emissions from the subject stationary source. In addition to the notice, a copy of the proposed Title V permit shall be submitted to such federally recognized Indian governing body;

(F) The director of the air pollution control program in any affected state, and the states of New York, Massachusetts, and Rhode Island, on or before the time such notice is provided to the public, except for applications for minor permit modifications for which the commissioner shall provide notice in accordance with 40 CFR 70.7(e)(2) and (3). In addition to the notice, a copy of the proposed Title V permit shall be submitted to such director; and

(G) The regional Administrator of the United States Environmental Protection Agency. In addition to the notice, a copy of the proposed Title V permit shall be submitted to the regional Administrator.

(6) For any permit application pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies for a new major stationary source or a major modification at a major stationary source, the commissioner shall forward, prior to the date of publication, a copy of the notice of tentative determination to those individuals or entities identified in subparagraphs (A), (B), (C), (D), (E) and (G), of subdivision (5) of this subsection and any Federal Land Manager or state whose lands, or air quality, may be affected by emissions from the source or modification.

(7) For any permit application pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies other than an application for a new major stationary source or a major modification at a major stationary source, the commissioner shall forward a copy of the notice of tentative determination, published in accordance with 40 CFR 51.161, as amended from time to time, to those individuals or entities identified in subparagraphs (A), (B), (C), and (G) of subdivision (5) of this subsection.

(8) For any permit application pursuant to section 22a-174-3a(l) of the Regulations of Connecticut State Agencies, the commissioner shall comply with the public notice requirements set forth in section 22a-174-3a(l)(7) of the Regulations of Connecticut State Agencies.

(9) For any permit application pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies, the commissioner shall comply with the requirements set forth

in section 22a-174-33(n) of the Regulations of Connecticut State Agencies.

(c) **Public Comments and Hearings**

(1) Written comments may be filed by any person within thirty (30) days following the publication of a notice of a tentative determination pursuant to subsection (b)(3) of this section. The commissioner shall maintain a record of all comments made on the subject application. Any comments concerning the issuance of a Title V permit may be accompanied by a request for a public informational hearing, an adjudicatory hearing, or both. Notwithstanding the provisions of section 22a-3a-6 of the Regulations of Connecticut State Agencies, any comments concerning the issuance of a permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies may be accompanied by a request for a public informational hearing.

(2) If the commissioner does not accept the recommendations of any director of the air pollution control program in any affected state or federally recognized Indian governing body with respect to any Title V permit issued pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies, the commissioner shall inform such director or federally recognized Indian governing body and the Administrator of the reasons therefore in accordance with the provisions of 40 CFR 70.8(b), as amended from time to time.

(3) Public adjudicative hearings shall be held in accordance with section 22a-3a-6 of the Regulations of Connecticut State Agencies.

(4) If a public adjudicative hearing is held, the commissioner shall publish a notice of such hearing in a newspaper of general circulation in the affected area at least thirty (30) days prior to such hearing.

(5) Following the close of the public adjudicative hearing, the final decision maker shall make a decision. Such decision shall be based on the record of such hearing to approve, deny or conditionally approve the issuance of the permit sought.

(6) Non-Adjudicative Public Informational Hearings. Following receipt of a written material request and prior to the issuance of a subject permit, or order pursuant to section 22a-174-33(d) of Regulations of Connecticut State Agencies, the commissioner shall hold a non-adjudicative public informational hearing on:

(A) An application pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies;

(B) An application pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies;

(C) An order pursuant to section 22a-174-33(d) of the Regulations of Connecticut State Agencies; and

(D) Following the commissioner's receipt of a written request for a public hearing, the commissioner shall hold such hearing if the permit application is for a new major stationary source or a major modification at a major stationary source, or for any stationary source where the stack height exceeds good engineering practice.

(7) Reserved.

(8) Any notice of hearing pursuant to this subsection shall:

(A) Be published at the applicant's expense in a newspaper of general circulation in the affected area at least thirty (30) days prior to such hearing;

(B) Provide the name of the applicant; the location of the proposed activity; the application number; the type of permit being sought; name, address and phone number for a contact person at the Department;

(C) Provide the name, address and number for the Department's Americans with Disabilities Act coordinator;

(D) Provide the date, time and location of the public hearing; and

(E) Be published in other media and in languages other than English as required by the commissioner.

(9) The commissioner may consider more than one permit application, or order pursuant to section 22a-174-33(d) of Regulations of Connecticut State Agencies, at any hearing pursuant to subdivision (6) of this subsection, provided the notice requirements of subdivision (8) of this subsection have been satisfied. The commissioner shall consider all written comments submitted within the public comment period in the notice including all comments received at the public hearing when making a final decision on the application.

(d) **New Source Review and Title V Non-Minor Permit Modification**

(1) General. Prior to making the change that is the subject of the non-minor permit modification application the owner or operator shall apply for and obtain a non-minor permit modification pursuant to this subsection.

(2) Exemptions. A permittee may conduct an activity described in section 22a-174-3a(a)(2) of the Regulations of Connecticut State Agencies without applying for and obtaining a new source review non-minor permit modification under this subsection.

(3) Except as provided in subdivision (2) of this subsection, the permittee of any stationary source or emission unit permitted pursuant to section 22a-174-3a or former section 22a-174-3 of the Regulations of Connecticut State Agencies shall apply for and obtain a new source review non-minor permit modification for any stationary source, emission unit, or modification identified in section 22a-174-3a(a)(1) of the Regulations of Connecticut State Agencies.

(4) Notwithstanding the exemptions in subdivision (2) of this subsection, the permittee of any Title V source shall apply for and obtain a Title V non-minor permit modification for any one or more of the following:

(A) To incorporate the requirements of any new source review permit issued to the permittee pursuant to former section 22a-174-3(k) or (*l*) of the Regulations of Connecticut State Agencies or section 22a-174-3a(k) or (*l*) of the Regulations of Connecticut State Agencies;

(B) To change a Title V permit term or condition which had prevented a Title V source from being subject to an otherwise applicable requirement;

(C) To relax the form or type of or any reduction in the frequency of any monitoring, reporting or record keeping required by the Title V permit; or

(D) To incorporate a change to an applicable requirement not otherwise subject to

subsections (e) or (f) of this section or not otherwise allowed as an off-permit change pursuant to 40 CFR 70.4(b)(14), as amended from time to time, or as operational flexibility pursuant to 40 CFR 70.4(b)(12), as amended from time to time.

(5) The procedural requirements for all non-minor permit modifications pursuant to subdivisions (3) and (4) of this subsection are as follows:

(A) An application for a non-minor permit modification shall be made on forms prescribed by the commissioner. Such application shall include a description of any proposed changes, a proposed permit, any proposed monitoring procedures, any changes in potential emissions resulting from the proposed changes, and an identification of all regulatory, statutory, or otherwise applicable requirements that would become applicable as a result of such changes;

(B) The permittee shall not deviate from the terms and conditions of the existing permit until and unless the commissioner has modified that permit; and

(C) A non-minor permit modification pursuant to this subsection, shall only be granted, granted with conditions, or denied following public notice and opportunity for public comment and public hearing, in accordance with the procedures set forth in subsections (b) and (c) of this section.

(6) In addition to the procedural requirements provided in subdivision (5) of this subsection, an application for a new source review non-minor permit modification pursuant to subdivision (3) of this subsection shall meet the requirements set forth in section 22a-174-3a(c) and 22a-3a-5 of the Regulations of Connecticut State Agencies.

(7) In addition to the procedural requirements provided in subdivision (5) of this subsection, an application for a Title V non-minor permit modification pursuant to subdivision (4) of this subsection shall meet the requirements set forth in section 22a-174-33(g) and 22a-3a-5 of the Regulations of Connecticut State Agencies and shall:

(A) Meet the requirements of 40 CFR 70.5(c), as amended from time to time;

(B) Meet the requirements of 40 CFR 70.7(a)(1), (4), (5) and (6) as amended from time to time;

(C) Where applicable, meet the requirements of 40 CFR 72 to 78, inclusive, as amended from time to time; and

(D) Only be granted or denied following opportunity for a public informational hearing described in subsection (c)(6) of this section, as may be applicable.

(8) With respect to an application for a Title V non-minor permit modification pursuant to subdivision (4) of this subsection, the commissioner shall:

(A) Take final action on a Title V non-minor permit modification within twelve (12) months from receipt of a complete application. In the event that this deadline is exceeded no application for a Title V non-minor permit modification shall automatically be deemed sufficient or approved; and

(B) Submit the modified Title V permit to the Administrator.

(9) The commissioner may modify a new source review permit in accordance with this section, section 22a-174-3a of the Regulations of Connecticut State Agencies, and section

22a-174c of the Connecticut General Statutes. The following procedures shall apply to such modifications:

(A) The permittee shall not deviate from the terms and conditions of the existing permit until and unless the commissioner has modified that permit; and

(B) A permit modification pursuant to this subsection, shall only be granted, granted with conditions, or denied following public notice and opportunity for public comment and public hearing, in accordance with the procedures set forth in subsections (b) and (c) of this section.

(e) **New Source Review and Title V Minor Permit Modification**

(1) The permittee of any source that is subject to a new source review permit issued by the commissioner pursuant to section 22a-174-3a or former section 22a-174-3 of the Regulations of Connecticut State Agencies shall apply for a new source review minor permit modification to make any change to such permit, unless such change is allowed pursuant to subsection (f) of this section or unless the change is required to receive a non-minor permit modification pursuant to subsection (d)(3) of this section.

(2) The permittee of any Title V source shall apply for a Title V minor permit modification to incorporate:

(A) Any modification not covered by permit revisions in subsection (f)(2)(A) to (F), inclusive, of this section; and

(B) Any modification allowed pursuant to the Title V minor permit modification criteria pursuant to 40 CFR 70.7 (e)(2)(i)(A)(1) to (6), inclusive, as amended from time to time.

(3) The procedural requirements for all new source review and Title V minor permit modifications, except as otherwise provided in subdivisions (4) and (5) of this subsection, are as follows:

(A) An application for a minor permit modification shall be made on forms prescribed by the commissioner and signed in accordance with subsection (a) of this section;

(B) An application for a minor permit modification shall include the following:

(i) a description of the proposed modification, a proposed modified permit, any proposed monitoring procedures, any increase in potential emissions resulting from the proposed modification, and an identification of all regulatory, statutory, or otherwise applicable requirements that would become applicable as a result of such modification, and

(ii) a statement, certified in accordance with subsection (a)(5) of this section, that the proposed minor permit modification meets all regulatory, statutory, or applicable requirements identified in the subject application;

(C) Subject to the limitations specified in subdivision (5)(F) of this subsection, a permittee may implement the modifications proposed in the minor permit modification application no less than twenty-one (21) days after filing a complete application with the commissioner, unless the commissioner notifies the applicant prior to the end of the twenty-one-day period that the modifications may not be implemented until such time as defined by the commissioner in the notification. If twenty-one days have passed since filing a complete application and the commissioner has not notified the permittee, the permittee

shall comply with the terms and conditions of the proposed modified permit and the terms and conditions of the existing permit that are not being modified, until the commissioner issues or denies the proposed modified permit.

(D) The commissioner shall process any minor permit modification, subject to subdivision (1) of this subsection, at a Title V source in accordance with subdivisions (3) to (5), inclusive of this subsection unless otherwise allowed pursuant to subsection (r)(2) of section 22a-174-33 of the Regulations of Connecticut State Agencies; and

(E) A minor permit modification to a permit issued pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies or former section 22a-174-3 of the Regulations of Connecticut State Agencies shall include the demonstrations required by sections 22a-174- 3a(d)(3)(B) and (C) of the Regulations of Connecticut State Agencies.

(4) With respect to an application for a new source review minor permit modification, under subdivision (1) of this subsection, to a permit issued pursuant to section 22a-174-3a or former section 22a-174-3 of the Regulations of Connecticut State Agencies, the existing permit terms and conditions of the permit sought to be modified remain in full force and effect if the modification that is the subject of the application is determined by the commissioner to require a non-minor permit modification.

(5) The following requirements shall apply to an application for a Title V minor permit modification under subdivision (2) of this subsection:

(A) The application shall meet the requirements of 40 CFR 70.5(c), as amended from time to time, and shall be governed by 40 CFR 72 to 78, inclusive, as amended from time to time;

(B) The application shall include completed forms for the commissioner to use to notify the Administrator, affected states and federally recognized Indian governing bodies of the proposed Title V minor permit modification;

(C) The commissioner shall notify the Administrator, affected states and the federally recognized Indian governing bodies within five (5) business days of receiving an application for a Title V minor permit modification;

(D) The commissioner shall comply with the timetable for issuance set forth in 40 CFR 70.7(e)(2)(iv), as amended from time to time;

(E) The commissioner shall not grant the permit shield provided by section 22a-174-33(k) of the Regulations of Connecticut State Agencies for Title V minor permit modifications made under this subsection;

(F) The permittee shall comply with the existing permit terms and conditions of the Title V permit if:

(i) the permittee fails to comply with the proposed permit terms and conditions during the pendency of an application for a Title V minor permit modification,

(ii) such application is subject to the provisions of subsection (d) of this section and the owner or operator has already implemented or began implementing the proposed modifications,

(iii) the commissioner denies the proposed Title V modified permit,

(iv) the commissioner has made a determination pursuant to 40 CFR 70.7(e)(2)(iv)(C), as amended from time to time, or

(v) the commissioner determines that the proposed modification would make the source subject to section 22a-174-3a of the Regulations of Connecticut State Agencies; and

(6) Notwithstanding the requirements of subsections (b) and (c) of this subsection, the commissioner may modify a Title V permit or new source review permit under this subsection without published notice, public comment, or hearing.

(7) The commissioner may modify a new source review permit in accordance with this section, section 22a-174-3a of the Regulations of Connecticut State Agencies, and section 22a-174c of the Connecticut General Statutes.

(f) **Permit Revisions**

(1) The owner or operator of a stationary source may perform the activities described in sections 22a-174-3a(a)(2)(A)(i) and (ii) and 22a-174-3a(a)(2)(B) and (C) of the Regulations of Connecticut State Agencies unless otherwise restricted by any provision of such permit or an order of the commissioner.

(2) The permittee of any stationary source for which the commissioner has issued a permit pursuant to section 22a-174-33 or 22a-174-3a of the Regulations of Connecticut State Agencies, or former section 22a-174-3 of the Regulations of Connecticut State Agencies shall submit a written request for a permit revision, for the purposes of:

(A) Correcting a clerical error;

(B) Revising the address or phone number of any person identified in such permit, or making another revision reflecting a similarly minor administrative change at or concerning the subject source;

(C) Revising the name of the authorized representative of the permittee, provided that a request to change such authorized representative shall be accompanied by written authorization in accordance with subsection (a)(2)(A) to (D), inclusive, of this section;

(D) Requiring more frequent or additional monitoring, record keeping or reporting;

(E) Reflecting a transfer in ownership or operational control of the subject source, in accordance with subsection (g) of this section, provided that:

(i) no other modification of the subject permit is required as a result of such transfer,

(ii) if the subject permit contains a provision for changing ownership or operational control of the subject source, the provision stated in the permit shall be followed provided that such provision is consistent with section 22a-6o of the Connecticut General Statutes, and

(iii) any transfer of the permit required by section 22a-6o of the Connecticut General Statutes has been granted by the commissioner;

(F) Implementing an administrative Title V permit amendment set forth in 40 CFR 70.7(d)(1)(v), as amended from time to time; or

(G) Implementing a fuel conversion described in section 22a-174-3a(a)(2)(A)(iii), (iv) or (v) of the Regulations of Connecticut State Agencies.

(3) Notwithstanding the requirements of subsections (b) and (c) of this section, the

commissioner may revise a permit under this subsection without published notice, public comment, or hearing.

(4) Upon submitting to the commissioner a written request for a permit revision under this subsection, a permittee may make changes as set forth in such request.

(5) With respect to a request to revise a Title V permit the commissioner shall comply with the applicable provisions of 40 CFR 70.7 (d)(2) and (3), as amended from time to time

(6) The commissioner shall not grant the permit shield provided by section 22a-174-33(k) of the Regulations of Connecticut State Agencies for permit revisions made under this subsection.

(g) **Permit Transfer**

(1) No person shall act or purport to act under the authority of a permit issued to another person unless such permit has been transferred in accordance with section 22a-6o of the Connecticut General Statutes.

(2) If the permit transferred is a Title V permit, such transfer shall comply with 40 CFR 70.7(d)(1)(iv), as amended from time to time, and proceed under subsection (f)(2)(E) of this section.

(h) **Permit Revocation**

(1) The commissioner may revoke any permit on his own initiative or at the request of the permittee in accordance with sections 4-182(c) and 22a-174c of the Connecticut General Statutes, section 22a-3a-5(d) of the Regulations of Connecticut State Agencies, and any other applicable law. Any such request shall be in writing and contain facts and reasons supporting the request.

(2) A permittee requesting the revocation of the permittee's Title V permit shall also state the requested date of revocation and provide evidence satisfactory to the commissioner that the subject source is no longer a Title V source.

(3) The Administrator, pursuant to the Act, is authorized to revoke or revoke and reissue a Title V permit if the Administrator has determined that the commissioner failed to act in a timely manner on a permit renewal application.

(i) **Permit Renewal**

(1) In addition to the requirements of section 22a-3a-5(c) of the Regulations of Connecticut State Agencies, except as provided in subdivision (2) of this subsection, the permittee shall apply for a permit renewal, if the subject permit contains an expiration date, at least one hundred twenty (120) days prior to the permit expiration date. Such application shall be made on forms prescribed by the commissioner, and shall include a description of any proposed modifications, proposed permit language, any proposed monitoring procedures, any increases or decreases in potential emissions resulting from any proposed modifications, and an identification of all regulatory, statutory, or otherwise applicable requirements that would become applicable as a result of such proposed modifications.

(2) The owner or operator of a Title V source shall apply for a renewal of a Title V permit no later than twelve (12) months prior to the expiration date of such permit.

(3) Notwithstanding subdivision (1) of this subsection, permits to operate issued after

June 1, 1972 and before April 2, 1986 need not be renewed even when there is a expiration date on the permit.

(j) **Registration and Registration Revocation**.

(1) Any registration issued pursuant to former section 22a-174-2 of the Regulations of Connecticut State Agencies is a license as defined in section 4-166 of the Connecticut General Statutes in that it is a registration required by law. Such registration shall remain in full force and effect, unless otherwise determined by the commissioner.

(2) An owner or operator shall comply with any registration issued by the commissioner under former section 22a-174-2 of the Regulations of Connecticut State Agencies unless and until such registration is revoked.

(3) The commissioner may revoke any registration issued pursuant to former section 22a-174-2 of the Regulations of Connecticut State Agencies on his own initiative or at the request of the registrant, in accordance with sections 4-182(c) and 22a-174c of the Connecticut General Statutes, section 22a-3a-5(d) of the Regulations of Connecticut State Agencies and any other applicable law.

(4) A registrant requesting the revocation of a registration issued pursuant to former section 22a-174-2 of the Regulations of Connecticut State Agencies shall make such a request to the commissioner in writing and shall include:

(A) Facts and reasons supporting the request;

(B) The requested date of revocation; and

(C) Evidence satisfactory to the commissioner to demonstrate that:

(i) The subject stationary source has been shut down, removed, dismantled or otherwise rendered inoperable,

(ii) A complete application for an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies has been submitted to the commissioner for review and approval,

(iii) The subject stationary source is operated in accordance with section 22a-174-3b or section 22a-174-3c of the Regulations of Connecticut State Agencies, or

(iv) The subject stationary source does not currently meet any provision requiring that an individual permit be obtained pursuant to section 22a-174-3a(a) of the Regulations of Connecticut State Agencies.

(Adopted effective March 15, 2002; Amended July 19, 2005; Amended April 4, 2006; Amended September 10, 2012; Amended November 18, 2020)

Sec. 22a-174-3. Repealed

Repealed March 15, 2002.

Sec. 22a-174-3a. Permit to construct and operate stationary sources

(a) **Applicability and Exemptions.**

(1) Applicability. Prior to beginning actual construction of any stationary source or modification not otherwise exempted in accordance with subdivision (2)(A) to (C) of this

subsection, the owner or operator shall apply for and obtain a permit to construct and operate under this section for any:

(A) New major stationary source;

(B) Major modification;

(C) New or reconstructed major source of hazardous air pollutants subject to the provisions of subsection (m) of this section;

(D) New emission unit with potential emissions of fifteen (15) tons or more per year of any individual air pollutant;

(E) Modification to an existing emission unit which increases potential emissions of any individual air pollutant from such unit by fifteen (15) tons or more per year;

(F) Stationary source or modification that becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant; or

(G) Incinerator for which construction commenced on or after June 1, 2009, except if such incinerator has potential emissions of less than fifteen (15) tons per year of any individual air pollutant and is used:

(i) for the primary purpose of reducing, controlling or eliminating air pollution,

(ii) as a solid waste incineration unit subject to an emission guideline issued pursuant to Section 129 of the Act,

(iii) as a burn-off oven,

(iv) for bench scale research and development operations where, for purposes of this clause, "research and development operation" has the same meaning as provided in section 22a-174-33(a)(8) of the Regulations of Connecticut State Agencies,

(v) to burn samples of non-halogenated materials for the purpose of conducting quality control or performance testing, or

(vi) as a portable unit to destroy contraband or confiscated goods, and the unit is owned or operated by a government agency such as police, customs, or a similar agency.

(2) **Exemptions.** Notwithstanding the provisions of subdivision (1) of this subsection, the owner or operator of a stationary source or modification may conduct activities listed in subparagraph (A) of this subdivision, and may construct or operate the sources listed in subparagraphs (B) and (C) of this subdivision, without a permit under this section:

(A) Any activity that:

(i) adds air pollution control equipment or implements process changes to control air pollution unless the addition or implementation results in an increase in actual emissions of any individual air pollutant of fifteen (15) tons or more per year, or ten (10) tons or more per year of a hazardous air pollutant subject to the provisions of subsection (m) of this section,

(ii) relocates a portable rock crusher which is subject to a permit or exemption letter issued by the commissioner pursuant to former section 22a-174-3 of the Regulations of Connecticut State Agencies, or which is registered under a general permit for such sources

issued by the commissioner pursuant to section 22a-174(*l*) of the Connecticut General Statutes, provided the owner or operator is in compliance with any such permits and provides written notice to the commissioner prior to such relocation,

(iii) constitutes a conversion from fuel oil to natural gas, or in addition to fuel oil, provided such conversion does not increase actual emissions of any individual air pollutant by fifteen (15) tons or more per year, unless such conversion results in reconstruction,

(iv) constitutes a conversion from residual fuel oil to distillate fuel oil, or in addition to residual fuel oil, provided such conversion does not increase actual emissions of any individual air pollutant by fifteen (15) tons or more per year, unless such conversion results in reconstruction, or

(v) constitutes a conversion from fuel oil to LPG, or in addition to fuel oil, provided such conversion does not increase actual emissions of any individual air pollutant by fifteen (15) tons or more per year, unless such conversion results in reconstruction. For the purposes of this clause, "LPG" means liquefied petroleum gas, consisting of propane, propylene, butane or a mix thereof and conforming to ASTM D1835-16, or the current active version thereof.

(B) Any stationary source that is:

(i) registered under and is in compliance with any new source review general permit to construct and operate a new or existing stationary source,

(ii) a stripping facility used to remove VOC from contaminated groundwater or soil pursuant to an order issued by the commissioner, provided such facility has a control device with VOC removal efficiency of at least ninety-five percent (95%),

(iii) a portable engine or boiler temporarily replacing an existing engine or boiler, provided the replacement units have a combined emission rate equal to or less than the existing units and that the number of days total that any and all such portable engines or boilers may be used does not exceed ninety (90) days in any calendar year,

(iv) in compliance with section 22a-174-3b, section 22a-174-3c, section 22a-174-3d or section 22a-174-42 of the Regulations of Connecticut State Agencies, unless otherwise subject to this section pursuant to subdivision (7) of this subsection, or

(v) a "gasoline dispensing facility," as defined in section 22a-174-30a(a)(7) of the Regulations of Connecticut State Agencies.

(C) Any:

(i) mobile source, or

(ii) non-road engine as defined in 40 CFR 1068.30.

(3) In determining the applicability of subsections (k) or (*l*) of this section, the owner or operator may determine the net emissions increase. However, the net emissions increase shall not be used determining the applicability of:

(A) This section to any minor source or modification thereof; or

(B) Subsection (j) of this section.

(4) This section and section 22a-174-2a of the Regulations of Connecticut State Agencies shall apply to any stationary source or modification for which a permit application pursuant

to former section 22a-174-3 of the Regulations of Connecticut State Agencies was filed prior to the effective date of this section, and for which a permit has yet to be issued or denied.

(5) Any permit modification or permit revision to a permit issued under this section or former section 22a-174-3 of the Regulations of Connecticut State Agencies shall be made as required in, and in accordance with, the provisions of this section and section 22a-174-2a of the Regulations of Connecticut State Agencies.

(6) Pursuant to the de minimis rule under section 182(c)(6) and (f) of the Act, the owner or operator of a major stationary source shall make and keep records of actual VOC and NOx emission increases and decreases at such source, resulting from any physical change in, or change in the method of operation of a stationary source. Such increases shall include emission increases below fifteen (15) tons per year of any individual air pollutant.

(7) To determine if the net emission increase of a modification exceeds the major source threshold levels and is subject to subsection (k) of this section, the owner or operator shall make and keep records of actual emissions increases and decreases including those below fifteen (15) tons per year, over the five (5) consecutive calendar years preceding the completion of construction.

(8) Any permit issued pursuant to former section 22a-174-3 of the Regulations of Connecticut State Agencies shall remain in full force and effect, in accordance with Section 22a-174-2a(i) of the Regulations of Connecticut Agencies, unless otherwise determined by the commissioner.

(b) **Authorized activities prior to permit issuance**

(1) The owner or operator of a stationary source or modification who is required to obtain a permit or non-minor permit modification under the provisions of this section may, prior to obtaining such permit:

(A) Enter into binding agreements or contractual obligations to undertake construction of the proposed stationary source or modification for which a permit is required; and

(B) Begin site clearing activities.

(2) The owner or operator of a stationary source or modification who must obtain a permit or non-minor permit modification under the provisions of this section, shall not begin actual construction before permit issuance. Such construction activities include, but are not limited to, the following activities which are specifically required for construction of the proposed stationary source or modification:

(A) Excavating, blasting, removing rock and soil; or

(B) Installing footings, foundations, retaining walls, or permanent storage structures.

(c) **Applications**

(1) The owner or operator of a stationary source or modification subject to the provisions of this section shall apply for a permit on forms prescribed by the commissioner. All permit applications shall include:

(A) An executive summary and all other information required by section 22a-3a-5 of the Regulations of Connecticut State Agencies. The executive summary shall summarize

the information contained in the application;

(B) Background information, including, but not limited to, the address of the premises, the legal name and business address of the applicant and of the applicant's agent for service of process and, if the applicant is not the owner of the subject source, the legal name and business address of such owner and of the owner's agent for service of process, the names and telephone numbers of the plant or site manager and any other individual, such as an engineer or consultant, designated by the owner or operator to answer questions pertaining to such application, including but not limited to, the siting of the subject stationary source or modification;

(C) The premises' site plan, including: a linear scale and north arrow, the plot plans depicting existing and proposed building locations, the legal boundaries of the property, stack locations, location of the subject stationary source or modification on the premises, and a United States Geological Survey topographic quadrangle map identifying the latitude and longitude of the subject stationary source or modification; and to the extent the commissioner deems it necessary, building dimensions and final grade elevations for all structures located on the premises;

(D) Technical information, including, but not limited to:

(i) descriptions of equipment, processes, air pollution control equipment, stack, fuels, process materials to be used, and process flow diagrams,

(ii) a completed pre-inspection questionnaire, if requested by the commissioner, which describes the equipment, processes and materials used,

(iii) the type, size, and efficiency of control equipment, and

(iv) the date, or proposed date, for commencement of construction of the subject stationary source or modification;

(E) The rate of emissions for individual air pollutants from the subject stationary source or modification. To calculate the rate of emissions, the owner or operator shall use data from one or more of the following, unless the commissioner determines otherwise:

(i) a continuous monitoring system which has been certified by the commissioner, provided that such data may be taken from a source similar to that for which a permit is sought,

(ii) stack testing data, provided such testing was conducted in accordance with protocols preapproved by the commissioner in writing and such test was observed by department staff; and further provided that such data may be taken from a source similar to that for which a permit is sought,

(iii) material balances conducted by an individual with knowledge of the subject process,

(iv) data from the "Compilation of Air Pollutant Emission Factors (AP-42)" as published by the Environmental Protection Agency,

(v) a calculation submitted to the commissioner, or

(vi) manufacturer's data submitted to the commissioner;

(F) Pursuant to subsection (j) of this section, proposed best available control technology (BACT) determination, including, but not limited to, an analysis, as required by subsection

(j) of this section, of the amount of emission reduction achievable through the use of BACT;

(G) For any stationary source or modification subject to subsection (*l*) of this section, the proposed lowest achievable emission rate (LAER) determination, including an analysis of the proposed LAER for each air pollutant, as required by subsection (*l*) of this section. Such analysis shall include the amount of emission reduction achievable through the use of LAER;

(H) For any stationary source or reconstruction subject to subsection (m) of this section, the proposed maximum achievable control technology (MACT) determination, as required by subsection (m) of this section;

(I) If the premises is a major stationary source, for the purposes of determining compliance with subdivisions (a)(6) and (7) of this section, a summary of the potential emissions from the new subject stationary source or modification and actual emissions from existing stationary sources located at the premises over the preceding five (5) consecutive calendar years;

(J) Compliance information pursuant to and required by section 22a-6m of the Connecticut General Statutes;

(K) Certification in accordance with section 22a-174-2a of the Regulations of Connecticut State Agencies; and

(L) All application fees required by law.

(2) The commissioner may require the owner or operator of the subject stationary source or modification to provide such additional information as the commissioner deems necessary.

(d) **Standards for Granting and Renewing a Permit**

(1) The commissioner may impose conditions on any permit or renewal thereof to ensure compliance with the regulations adopted pursuant to section 22a-174 of the Connecticut General Statutes and the Act.

(2) A permit or permit renewal shall not be issued unless the commissioner determines, upon evidence submitted by the owner or operator or otherwise made part of the record, that the owner or operator of the subject stationary source or modification shall comply with the applicable provisions of subdivision (3) of this subsection.

(3) Before issuance of a permit or permit modification, the owner or operator shall demonstrate, to the satisfaction of the commissioner, that, with respect to the construction and operation of the subject stationary source or modification, the owner or operator shall:

(A) Construct and operate such stationary source or modification in accordance with the permit, and operate such stationary source or modification in accordance with all applicable and relevant emission limitations, statutes, regulations, schedules for stack tests, and other order of the commissioner. In the event a conflict exists between the permit and another state or federally enforceable statute, regulation or order of the commissioner, the most stringent provision shall apply;

(B) Operate such stationary source or modification without preventing or interfering with the attainment or maintenance of any applicable ambient air quality standards or any

Prevention of Significant Deterioration increments under subsection (k) of this section. Such demonstration shall be made with respect to any applicable ambient air quality standard or increment in effect at the time the application is submitted:

(i) When emissions of the pollutant or a precursor to the pollutant subject to the applicable ambient air quality standard or increment will increase as a result of the construction and operation, or

(ii) When any parameter is changed in a manner that may increase the ambient impact;

(C) Operate such stationary source or modification without preventing or interfering with the attainment or maintenance of any National Ambient Air Quality Standard in any other state and without interfering with the application of the requirements in any other state's implementation plan, adopted pursuant to section 110 of the Act. Such demonstration shall be made with respect to any applicable ambient air quality standard or increment in effect at the time the application is submitted:

(i) When emissions of the pollutant or a precursor to the pollutant subject to the applicable ambient air quality standard or increment will increase as a result of the construction and operation, or

(ii) When any parameter is changed in a manner that may increase the ambient impact;

(D) Operate such stationary source or modification in accordance with all applicable emission standards and standards of performance pursuant to 40 CFR Parts 60, 61, and 63, as may be amended from time to time;

(E) Install:

(i) sampling ports of a size, number and location as the commissioner may reasonably require,

(ii) instrumentation to monitor and record emission and other parameter data as the commissioner may require, and

(iii) such other sampling and testing facilities as the commissioner may require;

(F) As the commissioner may require, conduct stack tests at the expense of such owner or operator, in accordance with subsection (e) of this section, and in accordance with permit conditions and methods prescribed by the commissioner. Such stack tests shall demonstrate, to the commissioner's satisfaction, that the requirements of each and every applicable permit or order of the commissioner for such stationary source or modification are being met and that such stationary source or modification complies with the Regulations of Connecticut State Agencies and federal requirements;

(G) Pay all fees required by the Department within forty-five (45) days of receipt of a tentative determination of the commissioner;

(H) Incorporate Best Available Control Technology (BACT), as directed by the commissioner, for greenhouse gases and each air pollutant listed in Table 3a(k)-1 of subsection (k) of this section subject to, and in accordance with, subsection (j) of this section;

(I) Incorporate the lowest achievable emission rate (LAER), as directed by the commissioner, for each air pollutant subject to, and in a*c*cordance with, subsection (*l*) of

this section;

(J) Incorporate the maximum available control technology (MACT), as directed by the commissioner, for each air pollutant subject to, and in accordance with, subsection (m) of this section;

(K) As required by the commissioner, install monitoring equipment and perform monitoring to demonstrate compliance with any permit provision. Such monitoring may include, but not be limited to, continuous emission monitoring (CEM);

(L) Provide the commissioner with current information regarding air pollutant emissions from such stationary source or modification, and in accordance with the commissioner's request, submit updated and current information regarding air pollutant emissions from any other stationary sources located on the applicable premises;

(M) Comply with any applicable maximum allowable stack concentration or other emission limitation of section 22a-174-29 of the Regulations of Connecticut State Agencies, as may be amended;

(N) Demonstrate that the emission limitation required of such stationary source or modification for the control of any air pollutant shall not be affected by that portion of the stack height of such stationary source or modification that exceeds good engineering practice stack height or by any other dispersion technique;

(O) Comply with an approved operation and maintenance plan submitted pursuant to subsection (c)(2) of this section;

(P) Have completed and submitted, on forms prescribed by the commissioner, a pre-inspection questionnaire, if requested to do so by the commissioner, which describes the equipment, processes and materials used;

(Q) Make the permit available at the subject premises throughout the period that such permit is in effect; and

(R) Comply with the applicable provisions of this section and any other applicable regulations, permits or orders of the commissioner for such stationary source or modification.

(4) An expiration date may be placed within any permit issued pursuant to this section. Any permit issued pursuant to this section or former section 22a-174-3 of the Regulations of Connecticut State Agencies containing an expiration date shall be renewed in accordance with the provisions of section 22a-174-2a(i) of the Regulations of Connecticut State Agencies.

(e) **Emission Testing**

(1) The permit may require that the owner or operator conduct emission (stack) testing to assure compliance with the permit terms and conditions in accordance with this subsection and section 22a-174-5 of the Regulations of Connecticut State Agencies.

(2) Emission tests shall be conducted in a manner acceptable to and approved by the commissioner. The owner or operator shall provide the results of any emission test in a form satisfactory to the commissioner. The commissioner shall have the opportunity to observe all emission tests or the results of any such tests may be disapproved by the commissioner.

(3) Based upon emission test results, the commissioner may modify, revise, or revoke a permit in accordance with subsection (f) of this section.

(f) **Modification, revision, or revocation of a permit**

(1) The commissioner may modify, revise, or revoke a permit in accordance with this section, section 22a-174-2a of the Regulations of Connecticut State Agencies, and sections 4-182 and 22a-174c of the Connecticut General Statutes.

(2) The commissioner shall review and may modify, revise or revoke any permit if the owner or operator:

(A) Has not commenced construction authorized by the permit within eighteen (18) months from the date of issuance, or such other period, as the permit provides, whichever is later;

(B) Has discontinued construction for eighteen (18) months or more after actual construction authorized by the permit has begun; or

(C) Has not commenced operation authorized by the permit within twenty-four (24) months from the completion of construction, or such other period as the permit provides, whichever is later.

(g) **Non-Minor Permit Modifications, Minor Permit Modifications and Permit Revisions**

(1) Any non-minor permit modification to a permit issued pursuant to this section shall be made in accordance with subsections (d)(1), (2), (3), (5) and (6) or subsection (d)(8) of section 22a-174-2a of the Regulations of Connecticut State Agencies, respectively.

(2) Any minor permit modification to a permit issued pursuant to this section shall be made in accordance with subsections (e)(1), (3) and (4) of section 22a-174-2a of the Regulations of Connecticut State Agencies, respectively.

(3) Any revision to a permit issued pursuant to this section shall be made in accordance with section 22a-174-2a(f) of the Regulations of Connecticut State Agencies.

(h) **Duty to Comply**

An owner or operator shall comply with the permit or modification thereto issued by the commissioner under this section.

(i) **Ambient Air Quality Analysis**

(1) An application for a permit subject to this subsection, if requested to be provided pursuant to subsection (c)(2) of this section, shall contain an analysis of the effect of the pollutants listed in Table 3a(i)-(1) below. For the purposes of this subsection, the allowable emissions of an air pollutant will be deemed to have a significant impact on air quality if such impact is greater than or equal to the amount listed for any individual air pollutant in Table 3a(i)-1 below.

Table 3a(i)-1 Ambient Impact

Air Pollutant	Ambient Impact (Micrograms per cubic meter)
$PM_{2.5}$	

Air Pollutant		Ambient Impact (Micrograms per cubic meter)
	Annual average	0.13
	24-hour average	1.2
PM_{10}		
	Annual average	1
	24-hour average	5
Sulfur Dioxide		
	Annual average	1
	24-hour average	5
	3-hour average	25
Carbon Monoxide		
	8-hour average	500
	1-hour average	2000
Nitrogen Dioxide		
	Annual average	1
Dioxin Annual average (as calculated according to Section 22a-174-1 of the Regulations of Connecticut State Agencies) (Polychlorodibenzodioxins (PCDDs)) (Polychlorodibenzfurans (PCDFs))		(Notwithstanding above units 0.1 picograms/m^3)
Lead (Pb)		0.3
	Three (3) month average	

(2) Any person who makes estimates of ambient air quality impacts shall use applicable air quality models, databases or other techniques approved by the commissioner and the Administrator. The commissioner may request any owner or operator to submit an ambient air quality impact analysis using applicable air quality models and modeling protocols approved by the commissioner.

(j) **Best Available Control Technology (BACT)**

(1) An owner or operator shall incorporate BACT for:

(A) Potential emissions of each air pollutant above the significant emission rate thresholds in Table 3a(k)-1 of subsection (k) of this section, from each new major stationary source;

(B) Potential emissions of each air pollutant above the significant emission rate

thresholds in Table 3a(k)-1 of subsection (k) of this section, from each major modification. This requirement applies to each individual emission unit that is part of such major modification;

(C) Potential emissions of fifteen (15) tons or more per year of any air pollutant, from each new emission unit;

(D) Potential emissions of fifteen (15) tons or more per year of any air pollutant, from a modification to each existing emission unit;

(E) Potential emissions of 75,000 tons or more per year of CO_2e from each new major stationary source if the new major stationary source also has potential emissions of an air pollutant above the significant emission rate threshold in Table 3a(k)-1of subsection (k) of this section; or

(F) Potential emissions of 75,000 tons or more per year of CO_2e from each physical change or change in the method of operation of a major stationary source if the physical change or change in the method of operation is a major modification that has potential emissions of an air pollutant above the applicable significant emission rate threshold in Table 3a(k)-1 of subsection (k) of this section.

(2) The owner or operator:

(A) Shall make and submit to the commissioner for written approval a BACT analysis for each air pollutant subject to subdivision (1) of this subsection, including but not limited to, secondary and cumulative impacts and cost estimates of all control options, or the use of innovative technology; and

(B) Shall install BACT as approved by the commissioner.

(3) The commissioner's review and written approval regarding BACT or the use of innovative technology shall be conducted prior to the issuance of the permit and prior to beginning actual construction.

(4) Notwithstanding any permit for a new source or modification under this subsection the commissioner may require for construction projects, including phased construction projects, that the permittee resubmit for review and approval a BACT analysis if such construction or phase of construction has not commenced within the eighteen (18) months following the commissioner's approval of the current BACT determination for such construction or phase of construction.

(5) Prior to commencing construction, including each phase of phased construction, the owner or operator may be required by the commissioner to demonstrate the adequacy of the technology used pursuant to any previous BACT determination, if such construction or phase of construction has not commenced within the eighteen (18) months following the commissioner's approval of the current BACT determination for such construction or phase of construction.

(6) In determining whether to approve BACT, the commissioner shall:

(A) Take into account any emission limitation, including any visible emission standard, which is achievable under any permit limitation or any stack test demonstration acceptable to the commissioner;

(B) Consider a previous BACT approval for a similar or a representative type of source;

(C) If the commissioner determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, the commissioner may prescribe a design, equipment, work practice or operational standard, or combination thereof, to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice or operation and shall provide for compliance by means which achieve equivalent results: and

(D) Not preclude the establishment of an output based emission limitation as BACT provided such application of BACT improves the overall thermal efficiency of the subject source or modification.

(7) In determining whether to approve BACT, the commissioner shall take into account energy, economic and environmental impacts, including secondary and cumulative impacts, and other costs.

(8) In no event shall the application of BACT result in:

(A) Emissions of any pollutant which would exceed:

(i) the emissions allowed by an applicable standard pursuant to 40 CFR Parts 60, 61, or 63;

(ii) any applicable State Implementation Plan limitation; or

(iii) an emission limitation established in section 22a-174-22e of the Regulations of Connecticut State Agencies for the applicable category of fuel burning equipment, regardless of whether the equipment is located at a source that is major for NOx;

(B) The use of offsetting emission reductions to meet the commissioner's approval of BACT; or

(C) The use of a net emissions increase to meet the commissioner's approval of BACT.

(9) The commissioner may allow the use of innovative technology as BACT, in accordance with 40 CFR 52.21(v), provided that "Administrator" means commissioner for the purposes of this provision. The owner or operator shall demonstrate that the proposed innovative technology will comply with 40 CFR 52.21(v), provide a net air quality benefit, and meet at least two (2) of the following criteria:

(A) Improves the process or operation of existing equipment;

(B) Requires the use of new equipment or air pollution control technology;

(C) Reduces localized impacts of any individual air pollutant; or

(D) Implements principles of pollution prevention or environmental management systems.

(k) **Permit Requirements for Attainment Areas: Prevention of Significant Deterioration of Air Quality (PSD) Program**

(1) The provisions of this subsection shall apply to the owner or operator of any new major stationary source:

(A) For each air pollutant emitted at a level equal to or greater than the threshold

designated in Table 3a(k)-1 of this subsection from such new major stationary source located in an attainment area or unclassified area for such pollutant; and

(B) For greenhouse gases, provided that:

(i) The new major stationary source emits or has the potential to emit equal to or greater than 75,000 tons per year of CO2e, and

(ii) The new major stationary source emits or has the potential to emit an air pollutant at a level equal to or greater than the threshold designated in Table 3a(k)-1 of this subsection from such new major stationary source located in an attainment area or unclassified area for such pollutant.

(C) For the purposes of this subsection, a major stationary source of NOx or VOC located in an ozone attainment or unclassifiable area and not located in the Ozone Transport Region, as such Region is identified in Section 7511c(a) of the Act, shall be treated as a major stationary source of ozone.

(2) The provisions of this subsection shall apply to the owner or operator of any major modification:

(A) For each air pollutant from such major modification located in an attainment area or unclassified area for such pollutant, that has:

(i) Actual emissions that are equal to or greater than the significant emission rate thresholds in Table 3a(k)-1 of this subsection, and

(ii) A net emissions increase that is equal to or greater than the significant emission rate thresholds in Table 3a(k)-1 of this subsection; and

(B) For greenhouse gases, if:

(i) An air pollutant from such major modification has emissions that exceed the emissions thresholds of subparagraph (A)(i) and (ii) of this subdivision,

(ii) The net greenhouse gas emissions increase due to the modification equals or exceeds a value of 75,000 tons per year CO2e, and

(iii) The net greenhouse gas emissions increase on a mass basis due to the modification exceeds a value of 0 tons per year.

(3) Reserved.

(4) The owner or operator of a major stationary source, major modification or stationary source subject to this subsection shall install BACT as approved by the commissioner in accordance with subsections (j)(2) to (j)(9), inclusive, of this section.

(5) Ambient Monitoring

(A) The permit application shall contain an analysis of the effect on ambient air quality in the area of the subject source or modification, of the following pollutants:

(i) those that have allowable emissions in excess of the amount listed in Table 3a(k)-1 of this subsection, or

(ii) those for which an ambient air quality standard exists;

(B) For any pollutant listed in Table 3a(k)-1 of this subsection for which an AAQS does not exist, the analysis shall contain such air quality monitoring data as the commissioner determines is necessary to assess ambient air quality for that pollutant in any area that such

pollutant may affect;

(C) For any pollutant for which an AAQS exists, the analysis shall contain air quality monitoring data approved by the commissioner and gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of such standard or a Prevention of Significant Deterioration increment listed in Table 3a(k)-2 of this subsection;

(D) The air quality monitoring data that is required by subparagraphs (B) and (C) of this subdivision shall have been gathered over a period of one (1) year and shall represent the year preceding receipt of the application, unless the commissioner determines in writing that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one (1) year, but not to be less than four (4) months;

(E) The owner or operator shall, after construction of the subject source or modification, conduct such ambient monitoring as the commissioner determines is necessary to determine the effect which the emissions from such source or modification may have, or are having, on air quality in any area. In addition, the owner or operator shall submit the results of such ambient monitoring to the commissioner within thirty (30) days of data collection; and

(F) The owner or operator shall meet the requirements of 40 CFR 58, Appendix A during the operation of monitoring.

(6) Source Impact Analysis.

(A) The owner or operator of the subject source or modification shall not cause or contribute to air pollution in violation of the National Ambient Air Quality Standards or any applicable maximum allowable increase above baseline concentration established in Table 3a(k)-2 of this subsection;

(B) Compliance with the requirements of this subsection shall be determined using the Department's air emissions inventory and the Prevention of Significant Deterioration increments listed in Table 3a(k)-2 of this subsection;

(C) A permit application for the subject source or modification shall include a calculation of the increase, above the baseline concentration, in ambient concentrations of pollutants to be expected from the new major stationary source or major modification. Such calculation shall be based on:

(i) the allowable emissions from the subject source or modification,

(ii) the actual emissions from all major stationary sources which were required to obtain a permit after the major source baseline date,

(iii) the increased actual emissions from all modifications to the major stationary source which were required to be permitted after the major source baseline date and before the minor source baseline date. The owner or operator shall use allowable emissions instead of actual emissions if such modifications are located on the owner's or operator's premises,

(iv) the actual emissions from all stationary sources, other than major stationary sources, which were required to obtain a permit after the minor source baseline date,

(v) the allowable emissions for any stationary source for which a permit is pending and for which the commissioner has made a determination of application sufficiency, and

(vi) the reductions, occurring on or after the minor source baseline date, in actual emissions and federally enforceable allowable emissions from stationary sources located in the baseline area;

(D) When determining the increase over the baseline concentration of criteria air pollutant emissions from the subject major stationary source or major modification, the commissioner may consider any proposed reductions in actual emissions and allowable emissions which will occur prior to the commencement of operation of the subject major stationary source or major modification, provided such reductions become enforceable.

(7) A permit application for the subject source or modification shall contain an analysis, in accordance with subsection (i) of this section, of the effect of the pollutants listed in Table 3a(k)-1.

Table 3a(k)-1 Significant Emission Rate Thresholds

Air Pollutant	Emission Levels(Tons per Year)
Carbon Monoxide	100
Nitrogen Oxides (as an ozone precursor)	25
Nitrogen Oxides ($PM_{2.5}$ precursor)	40
Nitrogen Dioxide (NO_2 National Ambient Air Quality Standard)	40
Sulfur Dioxide (as a $PM_{2.5}$ precursor)	40
Sulfur Dioxide (SO_2 National Ambient Air Quality Standard)	40
Particulate Matter	25
$PM_{2.5}$	10
PM_{10}	15
Volatile Organic Compounds (as an ozone precursor)	25
Hydrogen Sulfide (H~S)	10
Total Reduced Sulfur (including H_2S)	10
Reduced Sulfur Compounds (including H_2S)	10
Sulfuric Acid Mist	7
Fluorides	3
Lead	0.6
Mercury	0.1

Air Pollutant	Emission Levels(Tons per Year)
Municipal Waste Combustor Organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	3.5×10^{-6}
Municipal Waste Combustor Metals (Measured as particulate matter)	15
Municipal Waste Combustor Acid Gases (Measured as sulfur dioxide and hydrogen chloride)	40

Table 3a(k)-2 Maximum Allowable Increase above Baseline Concentration

Air Pollutant		PSD Increment (ug/m^3)
$PM_{2.5}$		
	Annual Arithmetic Mean	4
	24-Hour Average	9
Particulate Matter, as PM_{10}		
	Annual Arithmetic Mean	17
	24-Hour Average	30
Sulfur Dioxide		
	Annual Arithmetic Mean	20
	24-Hour Average	91
	3-Hour Average	512
Nitrogen Dioxide		
	Annual Arithmetic Mean	25

(8) Additional Source Information.

(A) The owner or operator of the subject source or modification shall include in the application:

(i) an analysis of the impairment to visibility, soils, and vegetation that would result from construction and operation of the subject source or modification, and an analysis of the general commercial, residential, industrial and other associated growth. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or residential value,

(ii) an analysis, based upon methods approved by the commissioner in writing, of the ambient air quality impact projected for the area as a result of the general commercial, residential, industrial, and other growth associated with the subject source or modification,

(iii) a description of the nature, location, design capacity and typical operating schedule of the subject source or modification, including specifications and drawings showing its design and plant layout,

(iv) a schedule for construction of the subject source or modification,

(v) a detailed description as to what system of continuous emission reduction is planned for the subject source or modification, emission estimates, or any other information necessary to demonstrate to the commissioner that BACT will be applied, and

(vi) any other information deemed necessary by the commissioner to perform any analysis or make any determination under this subsection;

(B) Upon the commissioner's request, the owner or operator of the subject source or modification shall submit:

(i) the ambient air quality impact of the subject source or modification, including meteorological and topographical data necessary to estimate such impact, and

(ii) the ambient air quality impacts and the nature and extent of the general commercial, residential, industrial and other growth which have or has occurred since August 7, 1977 in the area the subject source or modification will affect.

(9) Additional Public Participation Requirements. In addition to the public participation requirements of section 22a-174-2a of the Regulations of Connecticut State Agencies:

(A) The commissioner shall include in the notice of tentative determination published pursuant to section 22a-174-2a of the Regulations of Connecticut State Agencies and section 22a-6h of the Connecticut General Statutes, notice of opportunity for public comment at a public hearing, if one is requested, the opportunity to submit written comment, the degree of Prevention of Significant Deterioration increment consumption that is expected if the proposed activity is permitted, and any other information the commissioner deems appropriate; and

(B) The owner or operator of the subject source or modification shall send a copy of the notice required pursuant to subparagraph (A) of this subdivision to those individuals or entities listed under subsection (b)(5), as specified in subsection (b)(6), of section 22a-174-2a of the Regulations of Connecticut State Agencies.

(*l*) **Permit Requirements For Non-attainment Areas**

(1) **Applicability.** In accordance with subsection (a) of this section, the provisions of this subsection shall apply to the owner or operator of:

(A) Any new major stationary source that:

(i) Is or will be constructed in a designated nonattainment area; and

(ii) Is or will be a major stationary source of the pollutant for which the area is designated as nonattainment or of the precursors to such pollutant;

(B) Any modification:

(i) To an emissions unit that is a major stationary source in itself that results in a significant emissions increase equal to or greater than the values listed in Table 3a(k)-1, in subsection (k) of this section, of a pollutant for which the area is designated as nonattainment or of a precursor to a pollutant for which the area is designated as nonattainment, or

(ii) To a premises that is a major stationary source that results in a net emissions increase equal to or greater than the values listed in Table 3a(k)-1, in subsection (k) of this section, of a pollutant for which the area is designated as nonattainment or of a precursor to a pollutant for which the area is designated as nonattainment; or

(C) Any new major stationary source or major modification that is located in an attainment area or unclassifiable area, where the allowable emissions of any air pollutant would cause or exacerbate a violation of a National Ambient Air Quality Standard in a nonattainment area for such pollutant. Allowable emissions of any such air pollutant shall be deemed not to cause or contribute to a violation of a National Ambient Air Quality Standard provided that such emissions result in impacts that are less than the levels set forth in Table 3a(i)-1 in subsection (i) of this section.

(D) For the purpose of this subdivision, only the following constituent pollutants are considered precursors of the identified general pollutant:

(i) Volatile organic compounds are precursors to ozone,

(ii) Nitrogen oxides are precursors to ozone,

(iii) Sulfur dioxide is a precursor to $PM_{2.5}$, and

(iv) Nitrogen oxides are precursors to $PM_{2.5.}$

(2) Analysis of alternatives.

(A) An owner or operator of the subject source or modification shall include an analysis of alternative sites for the proposed activity, alternative sizes for the subject source or modification, alternative production processes, and all environmental control techniques and technologies which are available for such major stationary source or major modification;

(B) Such analysis shall demonstrate whether the benefits of the subject source or modification would significantly outweigh its adverse environmental impacts, including secondary impacts and cumulative impacts, and social costs imposed as a result of the location, construction or modification;

(C) The owner or operator of the subject source or modification shall submit such analysis prior to the issuance of any tentative determination on a permit application under this section.

(3) Control Technology Review and Approval.

(A) An owner or operator of the subject source or modification shall submit, for approval in writing:

(i) a LAER determination for each non-attainment air pollutant for which the subject source is a new major modification or new major stationary source, and

(ii) a LAER determination for each air pollutant which would cause or contribute to a violation of a National Ambient Air Quality Standard in an adjacent non-attainment area.

(B) In determining whether to approve LAER, the commissioner may take into account any emission limitation, including a visible emission limit. The commissioner may disregard any emissions test on a pilot plant or prototype equipment which does not have reasonable operating experience or which may not be generally available for industry use;

(C) In determining whether to approve LAER, the commissioner may take into account

an output based emission limitation as LAER provided such application of LAER improves the overall thermal efficiency of the subject source or modification;

(D) The owner or operator of the subject source or modification shall not be granted a permit under this section unless and until the commissioner determines that such owner or operator will install air pollution control technology which complies with the commissioner's approval of LAER for each non-attainment air pollutant;

(E) If the owner or operator of the subject source or modification has made modifications to the subject source or modification and any of these modifications are subject to but have not previously been evaluated under this subsection, the commissioner shall conduct a LAER review under this subsection and require implementation of LAER for such modifications;

(F) In no event shall the application of LAER result in an emission limit or rate of emissions that is less stringent or environmentally protective than an emission limitation approved by the commissioner as BACT, an emission limitation demonstrated or established in any State Implementation Plan or any applicable limitation or standard pursuant to 40 CFR Parts 60, 61, 62 or 63; and

(G) An owner or operator of the subject source or modification shall submit, for approval in writing an evaluation of secondary impacts or cumulative impacts for each non-attainment air pollutant with potential emissions in excess of the amount listed in Table 3a(k)-1 of subsection (k).

(4) Offsetting emission reductions or Emission Reduction Credits.

(A) Except as provided in subdivision (8)(B) of this subsection, prior to commencing operation pursuant to a permit issued under this section, the owner or operator of the subject source or modification shall:

(i) reduce actual emissions from other stationary sources on such premises, sufficient to offset the allowable emissions increase for each individual non-attainment air pollutant which is the subject of the application, or

(ii) obtain certified emission reduction credits in accordance with subdivision (5) of this subsection, which credits are sufficient to offset the allowable emissions increase for each individual non-attainment air pollutant; and

(B) The commissioner shall not grant a permit to an owner or operator of the subject source or modification unless the owner or operator demonstrates that internal offset or certified emission reduction credits pursuant to subparagraph (A) of this subdivision:

(i) have occurred preceding the submission of such application and prior to the date that the subject source or modification becomes operational and begins to emit any air pollutant. The commissioner may consider a time period beginning no earlier than November 15, 1990,

(ii) are not otherwise required by any of the following: the Act; a federally enforceable permit or order; the State Implementation Plan; or the regulations or statutes in effect when such application is filed,

(iii) will be incorporated into a permit or order of the commissioner and would be

federally enforceable,

(iv) will create a net air quality benefit in conjunction with the proposed emissions increase. In determining whether such a net air quality benefit would be created, the commissioner may consider emissions on an hourly, daily, seasonal or annual basis. For carbon monoxide or particulate matter (total suspended particulate, $PM_{2.5}$ and PM10), the net air quality benefits shall be determined by the use of atmospheric modeling procedures approved by the commissioner and the Administrator in writing. Upon the request of the commissioner, the owner or operator shall make and submit to the commissioner, a net air quality benefit determination for each air pollutant. Such determination shall include, but not be limited to, all increases and decreases of emissions from stationary sources at any premises providing the offsetting emission reductions,

(v) shall be based on the pounds per hour of potential emissions increase from the subject source or modification. The commissioner may consider other more representative periods, including, but not limited to, tons per year or pounds per day,

(vi) are identified in an emissions inventory maintained by the commissioner or otherwise approved in writing by the commissioner,

(vii) are of the same non-attainment air pollutant of which the owner or operator proposes to increase. Reductions of any exempt volatile organic compound listed in Table 1-3 of section 22a-174-1 of the Regulations of Connecticut State Agencies or those listed in 40 CFR 51.100 shall not be used to offset proposed increases emissions of non-exempt volatile organic compounds,

(viii) occurred at either: one or more stationary sources in the same non-attainment area or stationary sources in another non-attainment area if, pursuant to the Act, such area has an equal or higher non-attainment classification than the area in which the proposed activity would take place, and if emissions from such other non-attainment area contribute to a violation of a National Ambient Air Quality Standard in the non-attainment area in which the proposed activity would take place,

(ix) for the applicable non-attainment air pollutant, shall be from reductions in actual emissions, and

(x) offset actual emissions at a ratio greater than one to one, as determined by the commissioner. In addition, the owner or operator shall offset emission increases of allowable emissions at a ratio, for volatile organic compounds or nitrogen oxides, of at least: 1.3 to 1 in any severe non-attainment area for ozone, and 1.2 to 1 in any serious non-attainment area for ozone.

(5) The owner or operator of the subject source or modification shall secure certified emission reduction credits before using them. Continuous emission reduction credits shall be secured and retired prior to their use. Emission reduction credits shall be:

(A) Created and used in accordance with 40 CFR 51;

(B) Real, that is, resulting in a reduction of actual emissions, net of any consequential increase in actual emissions resulting from shifting demand. The emission reductions shall be measured, recorded and reported to the commissioner;

(C) Quantifiable, based on either stack testing approved by the commissioner in writing, conducted pursuant to an appropriate, reliable, and replicable protocol approved by the commissioner, or continuous emissions monitoring certified by the commissioner. Such quantification shall be in terms of the rate and total mass amount of non-attainment pollutant emission reduction;

(D) Surplus, not required by any Connecticut General Statute or regulation adopted thereunder, or mandated by the State Implementation Plan, and not currently relied upon for any attainment plan, any Reasonable Further Progress plan or milestone demonstration;

(E) Permanent, in that at the source of the emission reduction, the emission reduction system shall be in place and operating, and an appropriate record keeping system is maintained to collect and record the data required to verify and quantify such emissions reductions; and

(F) Enforceable and approved by the commissioner in writing after the submission to the commissioner of documents satisfactory to the commissioner or incorporated into a permit as a restriction on emissions.

(6) Compliance Requirements.

(A) The owner or operator of the subject source or modification shall demonstrate that all stationary sources owned, operated or controlled by the owner, operator, applicant, permittee and any parent company or subsidiary thereof are in compliance with all environmental protection laws or are on a federally enforceable schedule for achieving such compliance; and

(B) The owner or operator of the subject source or modification shall demonstrate that compliance with any enforcement orders for stationary sources in Connecticut owned, operated or controlled by the owner, operator, applicant, or permittee are on the most expeditious compliance schedule practicable.

(7) Public Notice. The notice of tentative determination pursuant to section 22a-6h of the Connecticut General Statutes shall include any information concerning the proposal by the owner or operator to offset the potential emissions increase from the subject source or modification and the commissioner's approval of LAER.

(8) Notwithstanding any provision of this section:

(A) No permit shall be granted under this subsection if the Administrator has made a final determination that the applicable implementation plan is not being implemented for the nonattainment area in which the subject source or modification is to be located; and

(B) Pursuant to section 173(a)(1)(B) of the Act, the owner or operator of any new major stationary source or major modification which is located in a zone within the non-attainment area, which zone has been identified by the Administrator, in consultation with the Secretary of Housing and Urban Development, as a zone to which economic development should be targeted, shall not be required to obtain offsetting emission reductions pursuant to this subsection unless the proposed emissions would cause or contribute to emissions levels which exceed the emissions levels allowed by the State Implementation Plan.

(m) **Permit Requirements for Hazardous Air Pollutants subject to the provisions of**

section 112(g) of the Act, as may be amended from time to time

(1) For the purposes of this subsection:

(A) "Major source of hazardous air pollutants" means any stationary source that emits or has the potential to emit, ten (10) tons per year or more of any particular hazardous air pollutant or twenty-five (25) tons per year or more of any combination of hazardous air pollutants;

(B) Reserved;

(C) "Construct a major source of hazardous air pollutants" means to fabricate, erect or install a major source of hazardous air pollutants or group of major sources of hazardous air pollutants within a contiguous area and under common control; and

(D) "Reconstruct a major source of hazardous air pollutants" means to replace one or more components at a major source of hazardous air pollutants, provided that:

(i) the fixed capital cost of the new component(s) exceeds fifty (50%) percent of the fixed capital cost of constructing a comparable source, and

(ii) it is technically and economically feasible for the source as determined by the commissioner, if reconstructed as proposed, to meet the applicable MACT emission limitation under this subsection.

(2) The owner or operator of the following sources are exempt from the requirements of this subsection:

(A) A major source of hazardous air pollutants subject to the MACT standards of 40 CFR 63, provided that such owner or operator has met all requirements for preconstruction review and any other applicable requirements of 40 CFR 63, Subpart A;

(B) A major source of hazardous air pollutants de-listed by the Administrator pursuant to section 112(c)(9) of the Act; or

(C) A major source of hazardous air pollutants excluded for research and development activities pursuant to 40 CFR 63.40(f).

(3) An application for a permit to construct, reconstruct, or operate a major source of hazardous air pollutants shall include:

(A) The names of the hazardous air pollutant(s) to be emitted, and the estimated emission rate of each such pollutant;

(B) A proposed determination of MACT, including, but not necessarily limited to, specific design, equipment, work practice, or operational standard, or a combination thereof, that will meet the MACT, technical information on the design, operation, size, and estimated control efficiency of any proposed emission control equipment. The commissioner may require the owner or operator to submit the manufacturer's name, address, telephone number, and design specifications of such equipment for:

(i) each single hazardous air pollutant with potential emissions of ten (10) tons per year or more, and

(ii) any combination of hazardous air pollutants with potential emissions of twenty-five (25) tons per year or more;

(C) A description of the subject source including identification of any listed source

category or categories such source is included within pursuant to the Act;

(D) The owner's or operator's proposed dates for:

(i) commencement of construction or reconstruction of such source,

(ii) completion of construction or reconstruction of such source, and

(iii) start-up of such source;

(E) Any federally enforceable emission limitations applicable to such source;

(F) The proposed maximum utilization capacity of such source, and the associated:

(i) uncontrolled emission rates per year, and

(ii) controlled emission rates per year;

(G) A proposed emission limitation for each hazardous air pollutant from such source;

(H) Supporting documentation for the proposed determination of MACT, such as an identification of alternative control technologies and an analysis of the cost, health and environmental impacts and energy requirements; and

(I) Any other relevant information required pursuant to 40 CFR 63, Subpart A, or as the commissioner may require.

(4) No permit will be granted unless the commissioner approves the proposed MACT determinations and determines that the owner or operator shall:

(A) Comply with any applicable emission standards or work practice standards adopted by the Administrator pursuant to sections 112(d) or 112(h) of the Act, respectively; and

(B) Comply with any applicable determination of the commissioner pursuant to section 112(j) of the Act.

(5) In establishing MACT for any major source of hazardous air pollutants, the commissioner shall:

(A) Consider any relevant emission standard or work practice standard proposed by the Administrator pursuant to sections 112(d) or 112(h) of the Act;

(B) Consider any presumptive MACT determination adopted by the Administrator for the applicable source category which includes the source under consideration;

(C) Require the limitation or requirements to be no less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the commissioner; and

(D) Require the maximum degree of reduction in emissions of hazardous air pollutants which can be achieved by utilizing those control technologies, taking into consideration the costs of achieving such emission reduction and any health and environmental impacts and energy requirements associated with the emission reduction.

(6) The owner or operator of a source subject to this subsection and the commissioner shall comply with the provisions of 40 CFR Part 63.44 as amended from time to time.

(7) Any permit issued pursuant to this subsection will require the permittee to comply with the applicable emission standard promulgated by the Administrator pursuant to section 112(d) or 112(h) of the Act no later than eight (8) years after such standard is promulgated or eight (8) years after the date by which the permittee was first required to comply with the emission limitation established by such permit, whichever is earlier.

(8) Notwithstanding subdivisions (5), (6) and (7) of this subsection the permittee will not be required to comply with any less stringent provisions of an applicable emission standard promulgated by the Administrator pursuant to section 112(d) or 112(h) of the Act if the level of control required by the emission limitation established by the permit issued pursuant to this subsection is at least as stringent as that required by the applicable emission standard promulgated by the Administrator pursuant to section 112(d) or 112(h) of the Act as determined by the commissioner.

(n) **Permit requirements for mercury emissions from coal-fired electric generating units**.

(1) Definitions. For purposes of this subsection, the following definitions shall apply. Any term not defined in this subsection shall be as defined in 40 CFR 60.24(h)(8), as amended on June 9, 2006:

(A) "Coal-fired electric generating unit" means "electric generating unit" as defined in 40 CFR 60.24(h)(8).

(B) "Existing coal-fired electric generating unit" means any one of the following coal-fired electric generating units: Bridgeport Harbor Station unit 3 in Bridgeport, AES Thames unit 1 in Montville or AES Thames unit 2 in Montville.

(C) "New coal-fired electric generating unit" means any coal-fired electric generating unit that is not an existing coal-fired electric generating unit.

(D) "State mercury mass emissions cap" means, for the period beginning January 1, 2010 through December 31, 2017, 106 pounds of mercury per calendar year, and, beginning January 1, 2018, 42 pounds of mercury per calendar year.

(2) In addition to the information specified in subsection (c) of this section, the owner or operator of a coal-fired electric generating unit subject to the provisions of this section shall include the components specified in this subdivision in any permit application to construct, reconstruct, modify or operate:

(A) Enforceable requirements to limit the annual emission of gases containing mercury from the commencement of operation on a calendar year basis, including:

(i) Mercury emissions limitations consistent with section 22a-199 of the Connecticut General Statutes,

(ii) A cap (in pounds) for the annual mercury emissions from the coal-fired electric generating unit or units that are the subject of the application, and

(iii) Additional requirements determined by the Commissioner as necessary to comply with the state mercury mass emissions cap;

(B) Provisions that satisfy the designated representative requirements of 40 CFR 60.4110 through 60.4114, as specified in subparagraph (E) of this subdivision;

(C) Provisions that satisfy the testing, monitoring and reporting requirements of section 22a-199(b)(3) and (4) of the Connecticut General Statutes;

(D) As of January 1, 2009, to determine compliance with the emissions limitations of subdivision (2)(A) of this subsection, monitoring, recordkeeping and reporting requirements that satisfy:

(i) 40 CFR 75, with regard to mercury mass emissions, and

(ii) 40 CFR 60.4170 through 60.4176, as specified in subparagraph (E) of this subdivision;

(E) The requirements in 40 CFR 60 referenced in this subdivision shall be applied, as follows:

(i) The term "Hg budget unit" as used in 40 CFR 60.4170 through 60.4176 shall be deemed to refer to "coal-fired electric generating unit,"

(ii) As used in 40 CFR 60.4110 through 60.4114: "Hg Budget source" shall be deemed to refer to "facility that includes one or more coal-fired electric generating units," "Hg Budget unit" shall be deemed to refer to "coal-fired electric generating unit," "Hg Budget Trading Program" shall be deemed to refer to "section 22a-174-3a(n)(2)(F)" and "Hg Budget permit" shall be deemed to refer to "permit to construct, reconstruct or operate," and

(iii) The provisions concerning "Hg Allowance Tracking System account," "Hg allowances," "proceeds of transactions involving Hg allowances," 40 CFR 60.4102 and 40 CFR 60.4151, when made in 40 CFR 60.4110 through 60.4114, shall not be applicable to coal-fired electric generating units subject to this subsection; and (F) Additional requirements determined by the Commissioner as necessary to determine compliance with the mercury emissions limitations of subdivision (2)(A) of this subsection, including, on and after July 1, 2008, installation and operation of a continuous emissions monitoring system.

(3) No permit for a coal-fired electric generating unit shall be granted pursuant to this section unless the sum of the applicable annual mercury emissions caps of the following units does not exceed the applicable state mercury mass emissions cap:

(A) The unit or units addressed by the permit application(s) under consideration;

(B) Each new coal-fired electric generating unit previously issued a permit under this subsection; and

(C) Each existing coal-fired electric generating unit in the state.

(Adopted effective March 15, 2002; Amended January 1, 2005; Amended May 29, 2007; Amended June 12, 2009; Amended January 28, 2011; Amended September 10, 2012; Amended June 27, 2013; Amended April 15, 2014; Amended July 8, 2015; Amended October 5, 2017; Amended February 8, 2018; Amended November 18, 2020; Amended March 5, 2021; Amended March 14, 2024; Amended April 9, 2026)

Sec. 22a-174-3b. Exemptions from permitting for construction and operation of external combustion units, automotive refinishing operations, emergency engines, nonmetallic mineral processing equipment and surface coating operations

(a) **Definitions.** For the purposes of this section and section 22a-174-3c of the Regulations of Connecticut State Agencies:

(1) "As applied" means a coating, including all components such as dilution solvents and reactive constituents, prepared at the time of application to a substrate;

(2) "Automobile" means a passenger car, van, motorcycle, truck or any other motorized

vehicle for transportation;

(3) "Automotive refinishing operation" means the processes performed to apply a new surface to the pre-existing coat or paint on an automobile, automotive component or any other mobile equipment or part thereof, including but not limited to surface preparation, primer application, topcoat application and applicator cleaning;

(4) "Electrostatic application" means the application of charged atomized paint droplets by electrostatic attraction;

(5) "Emergency" means "emergency" as defined in section 22a-174-22e of the Regulations of Connecticut State Agencies;

(6) "Emergency engine" means "emergency engine" as defined in section 22a-174-22e of the Regulations of Connecticut State Agencies;

(7) "External combustion unit" means a device that combusts only natural gas, propane or fuel oil, which is not a stationary internal combustion engine or turbine, and includes, but is not limited to, a boiler, heater, drying oven, curing oven or furnace;

(8) "Mobile equipment" means any non-automotive equipment or apparatus that is operated or is capable of being operated on a roadway, including, but not limited to, truck bodies, truck trailers, buses, mobile cranes, bulldozers and other construction equipment, street cleaners and farm equipment;

(9) "Nonmetallic mineral" means "nonmetallic mineral" as defined in 40 CFR 60.671;

(10) "Nonmetallic mineral processing equipment" means any crusher, grinding mill, screening operation, bucket elevator, belt conveyer, bagging operation, storage bin or other equipment used to crush or grind any nonmetallic mineral at a nonmetallic mineral processing plant;

(11) "Nonmetallic mineral processing plant" means "nonmetallic mineral processing plant" as defined in 40 CFR 60.671;

(12) "Pre-existing coat or paint" means a surface covering or coating applied to an automobile or automotive component at an automotive manufacturing facility or applied to any mobile equipment or part thereof at the point of manufacture;

(13) "Spray booth" means a building, a room within a building or a partitioned area within a room housing automatic or manual spray application equipment, that is used to apply coatings;

(14) "Surface coating operation" means a process or processes used to apply a layer of material including spray painting, dip coating, roller coating and electrostatic deposition, but exclusive of printing, publishing or packaging operations;

(15) "Touch up repair" means the application of automotive topcoat finish materials to cover minor finishing imperfections equal to or less than one inch in diameter;

(16) "Tune-up" means to perform maintenance and adjust equipment to proper or required operating condition; and

(17) "Twelve (12) month rolling aggregate" means the sum of the total fuel use, actual emissions, coating use, solvent use or actual operating time calculated for each month by adding the current month's fuel use, actual emissions, coating use, solvent use or actual

operating time to those of the previous eleven months.

(b) **Applicability.**

(1) The owner or operator of a stationary source that is an external combustion unit, an automotive refinishing operation, a nonmetallic mineral processing equipment, an emergency engine or a surface coating operation may construct and operate such source without obtaining a general permit for such source issued pursuant to section 22a-174 of the Connecticut General Statutes or a permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies if:

(A) The source has potential emissions of fifteen (15) tons or more per year of any individual air pollutant;

(B) The source is not a new major stationary source;

(C) The source is not a newly constructed or reconstructed major source of hazardous air pollutants subject to the requirements of section 22a-174-3a(m) of the Regulations of Connecticut State Agencies; and

(D) The owner or operator complies with all applicable provisions of this section.

(2) The owner or operator of an existing stationary source that is an external combustion unit, an automotive refinishing operation, a nonmetallic mineral processing equipment, an emergency engine or a surface coating operation may modify such source without obtaining a general permit for such source issued pursuant to section 22a-174 of the Connecticut General Statutes or a permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies if:

(A) The modification has increased potential emissions of any individual air pollutant from such source by fifteen (15) tons or more per year;

(B) At the time of modification, the source is not authorized to operate pursuant to an individual permit issued pursuant to section 22a-174-3a or former section 22a-174-3 of the Regulations of Connecticut State Agencies;

(C) The modification is not a major modification to an existing major stationary source; and

(D) The owner or operator complies with all applicable provisions of this section.

(3) The requirements of this section do not apply to those sources operating in compliance with section 22a-174-3c of the Regulations of Connecticut State Agencies.

(4) The owner or operator of an automotive refinishing operation that meets the applicability criteria in subdivision (1) or (2) of this subsection shall comply with the provisions of subsection (d) of this section unless such owner or operator is operating in accordance with one of the following:

(A) An individual permit issued pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies; or

(B) The provisions of section 22a-174-3c of the Regulations of Connecticut State Agencies.

(c) **External combustion unit**.

(1) The owner or operator of an external combustion unit shall properly maintain

equipment and operate such unit in accordance with the following requirements:

(A) Maximum rated heat input shall not exceed the following limitations:

(i) 50 MMBtu/hr for sources burning gaseous fuels,

(ii) 25 MMBtu/hr for sources burning distillate oil or a blend of distillate oil and biodiesel fuel, and

(iii) 15 MMBtu/hr for sources burning residual oil or a blend of residual oil and biodiesel fuel;

(B) Fuel use shall not exceed the following limitations:

(i) natural gas usage shall not exceed 214 million cubic feet in any twelve (12) month rolling aggregate,

(ii) propane usage shall not exceed 1.57 million gallons in any twelve (12) month rolling aggregate,

(iii) distillate oil usage, inclusive of blends of distillate oil and biodiesel fuel, shall not exceed 704,000 gallons in any twelve (12) month rolling aggregate,

(iv) residual oil usage, inclusive of blends of residual oil and biodiesel fuel, shall not exceed 191,000 gallons in any twelve (12) month rolling aggregate, and

(v) use of any combination of the fuels listed in subparagraphs (B)(i) to (B)(iv) of this subdivision shall not result in emissions of any individual air pollutant greater than 15 tons per year in any twelve (12) month rolling aggregate;

(C) Fuel content shall be as follows:

(i) any residual oil, inclusive of blends of residual oil and biodiesel fuel, used shall comply with the fuel sulfur content requirements of subdivision (2) of subsection (d) of section 22a-174-19b of the Regulations of Connecticut State Agencies, and

(ii) no fuel oil used shall be blended with waste oil or solvent;

(D) The height of any stack associated with the unit shall be the greater of:

(i) 10 meters, or

(ii) the lesser of 1.3 times the building height or maximum building width; and

(E) A tune-up of the external combustion unit shall be performed on an annual basis.

(2) The owner or operator of an external combustion unit shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of subdivision (1) of this subsection. Information sufficient to make such determinations may include the information specified in subdivision (3) of this subsection. All records made to determine compliance with the requirements of this section shall be:

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created.

(3) The owner or operator of an external combustion unit may make and maintain records of the following information, as applicable:

(A) Records of the fuel type and quantity used, in gallons or million cubic feet, for each month and each twelve (12) month rolling aggregate;

(B) If the fuel used is residual oil or a blend of residual oil and biodiesel fuel, records of the sulfur content for each nongaseous fuel shipment received;

(C) If multiple fuels are used, records of the quantity in tons of each criteria pollutant emitted for each month and each twelve (12) month rolling aggregate; and

(D) The date each annual tune-up is performed.

(d) **Automotive refinishing operation**.

(1) Except as provided in subsection (4) of this subsection, the owner or operator of an automotive refinishing operation shall properly maintain equipment and perform such operation in accordance with the following requirements:

(A) The total amount of VOC-containing coatings or solvents used shall not exceed 2,000 gallons in any twelve (12) month rolling aggregate;

(B) Any paint or coating shall be applied by one of the following means:

(i) high volume low pressure spray equipment,

(ii) electrostatic application equipment, or

(iii) any other application method that has a manufacturer's guaranteed transfer efficiency of at least sixty-five percent (65%);

(C) Any application equipment used shall be cleaned using one of the following means:

(i) in a device that remains closed at all times when not in use,

(ii) in a system that discharges unatomized cleaning solvent into a waste container that remains closed when not in use,

(iii) in a vat that allows for disassembly and cleaning of application equipment and that is kept closed when not in use, or

(iv) in a system that atomizes spray into a paint waste container that is fitted with a device designed to capture atomized solvent emissions;

(D) If a spray booth is vented directly to the ambient air, such booth shall contain particulate control equipment that is operated and maintained in good working condition at all times the booth is in use;

(E) New and used coatings and solvents shall be stored in nonabsorbent, non-leaking containers. Such containers shall be kept closed at all times except when the container is being filled or emptied; and

(F) Absorbent applicators, such as cloth and paper, which are moistened with coatings or solvents shall be stored in a closed, nonabsorbent, non-leaking container.

(2) The owner or operator of an automotive refinishing operation shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of subdivision (1) of this subsection. Information sufficient to make such determinations may include the information specified in subdivision (3) of this subsection. All records made to determine compliance with the requirements of this section shall be:

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created.

(3) The owner or operator of an automotive refinishing operation may make and maintain records of the following information:

(A) Records of the amount of coating and solvent used, in gallons, for each month and each twelve (12) month rolling aggregate; and

(B) If a paint or coating is applied by other than the methods specified in subdivision (1)(B)(i) or (ii) of this subsection, a record of the manufacturer's guaranteed transfer efficiency.

(4) The following application methods and applications are exempt from the requirements listed in subdivision (1) of this subsection:

(A) The use of airbrush application methods for stenciling, lettering and other identification markings;

(B) The application of coatings sold in non-refillable aerosol containers; and

(C) The application of touch-up repair finish materials.

(e) **Emergency engine.**

(1) The owner or operator of an emergency engine shall properly maintain equipment and operate such engine in accordance with this subsection.

(2) No owner or operator of an emergency engine shall cause or allow such engine to operate except during periods of testing and scheduled maintenance or during an emergency and unless the following conditions are met:

(A) Operation of such engine shall not exceed 300 hours during any twelve (12) month rolling aggregate; and

(B) Any nongaseous fuel consumed by such engine shall comply with the fuel sulfur content requirements of subdivision (2) of subsection (d) of section 22a-174-19b of the Regulations of Connecticut State Agencies.

(3) The owner or operator of an emergency engine shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of subdivision (2) of this subsection. Information sufficient to make such determinations may include the information specified in subdivision (4) of this subsection. All records made to determine compliance with the requirements of this section shall be:

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created.

(4) The owner or operator of an emergency engine may make and maintain records of the hours of operation for each month and each twelve (12) month rolling aggregate.

(f) **Nonmetallic mineral processing equipment**.

(1) The owner or operator of nonmetallic mineral processing equipment consisting of one or more internal combustion engines shall properly maintain and operate such equipment in accordance with the following conditions:

(A) If every internal combustion engine that supplies power for the nonmetallic mineral processing equipment has an individual maximum output rating greater than or equal to 600 horsepower, the owner or operator shall:

(i) For all such internal combustion engines in combination, not exceed 67,400 gallons of fuel oil usage in any twelve (12) month rolling aggregate,

(ii) For any fuel oil consumed by such internal combustion engine or engines, comply with the fuel sulfur content requirements of subdivision (2) of subsection (d) of section 22a-174-19b of the Regulations of Connecticut State Agencies, and

(iii) Not use the nonmetallic mineral processing equipment and associated internal combustion engine or engines to result in emissions of any individual air pollutant greater than fifteen (15) tons per year in any twelve (12) month rolling aggregate; or

(B) If any internal combustion engine that supplies power for the nonmetallic mineral processing equipment has an individual maximum output rating less than 600 horsepower, the owner or operator shall:

(i) For all internal combustion engines supplying power to the nonmetallic mineral processing equipment in combination, not exceed 48,900 gallons of fuel oil usage in any twelve (12) month rolling aggregate,

(ii) For any fuel oil consumed by such internal combustion engine or engines, comply with the fuel sulfur content requirements of subdivision (2) of subsection (d) of section 22a-174-19b of the Regulations of Connecticut State Agencies, and

(iii) Not use the nonmetallic mineral processing equipment and associated internal combustion engine or engines to result in emissions of any individual air pollutant greater than fifteen (15) tons per year in any twelve (12) month rolling aggregate.

(2) The owner or operator of any nonmetallic mineral processing equipment that is powered by electricity shall not use such nonmetallic mineral processing equipment to result in emissions of any individual air pollutant greater than fifteen (15) tons per year in any twelve (12) month rolling aggregate.

(3) The owner or operator of nonmetallic mineral processing equipment shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of subdivisions (1) and (2) of this subsection. Information sufficient to make such determinations may include the information specified in subdivision (4) of this subsection. All records made to determine compliance with the requirements of this section shall be:

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created.

(4) The owner or operator of nonmetallic mineral processing equipment may make and maintain records of the following information:

(A) Records of the quantity of fuel used, in gallons, for each month and each twelve (12) month rolling aggregate; and

(B) For each nongaseous fuel shipment received, records of the sulfur content as a percent by weight, dry basis, and type of fuel.

(g) **Surface coating operation.**

(1) The owner or operator of a surface coating operation shall properly maintain equipment and conduct such coating operations only in accordance with the following limitations on VOCs, hazardous air pollutants and particulate matter:

(A) The VOC content of any coating used shall not exceed 6.3 pounds per gallon, as applied;

(B) The hazardous air pollutant content of any coating used shall not exceed 6.3 pounds per gallon, as applied;

(C) Coating and solvent usage, including diluents and cleanup solvents but excluding water, shall not, in any twelve (12) month rolling aggregate, exceed 3,000 gallons; and

(D) Any electrostatic dry powder coating operation or plasma spray operation shall be operated only with particulate control equipment that meets the following requirements:

(i) includes a minimum collection efficiency of 90%, and

(ii) is operated and maintained in good working condition.

(2) The owner or operator of a surface coating operation shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of subdivision (1) of this subsection. Information sufficient to make such determinations may include the information specified in subdivision (3) of this subsection. All records made to determine compliance with the requirements of this section shall be:

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created.

(3) The owner or operator of a surface coating operation may make and maintain records of the following information:

(A) Records of the type and quantity of coating and solvent used, in gallons, for each month and each twelve (12) month rolling aggregate;

(B) Records of the hazardous air pollutant and VOC content per gallon of each coating and solvent used, as applied; and

(C) If the surface coating operation includes an electrostatic dry powder coating operation or a plasma spray operation, a record of the manufacturer's specifications for particulate control efficiency.

(h) **Fuel sulfur content.** Records sufficient to demonstrate the sulfur content of fuel used, as required by subsections (c), (e), and (f) of this section are those records specified in subdivision (3) of subsection (g) of section 22a-174-19b of the Regulations of Connecticut State Agencies.

(i) **Reporting.**

(1) The owner or operator of any source required to make and maintain records pursuant to this section shall provide any such records, or a copy thereof, to the commissioner upon request and shall make such records available to the commissioner to inspect at the location maintained.

(2) Any record requested pursuant to subdivision (1) of this subsection shall be submitted with a certification in accordance with section 22a-174-2a(a) of the Regulations of Connecticut State Agencies.

(j) **Applicable law.** Nothing in this section shall relieve an owner or operator from any obligation to comply with:

(1) The requirements of 40 CFR 63, Subpart B as implemented in section 22a-174-3a(m) of the Regulations of Connecticut State Agencies; and

(2) Any other applicable federal, state or local law.

(k) **Application for individual permits.**

(1) Nothing in this section shall preclude the commissioner from requiring an owner or

operator to obtain an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies.

(2) Nothing in this section shall preclude an owner or operator from applying for an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies, if applicable.

(3) An owner or operator who has filed an application for an individual permit pursuant to subdivision (1) of this subsection shall comply with the requirements of this section while such application is pending.

(Adopted effective March 15, 2002; Amended January 1, 2005; Amended April 4, 2006; Amended February 1, 2010; Amended December 22, 2016; Amended March 14, 2024)

Sec. 22a-174-3c. Limitations on potential to emit for external combustion units, emergency engines, automotive refinishing operations, nonmetallic mineral processing equipment and surface coating operations

(a) **Limitations on potential to emit.**

(1) Notwithstanding the definition of " potential emissions" or "potential to emit" in section 22a-174-1 of the Regulations of Connecticut State Agencies, the potential emissions or potential to emit of any individual air pollutant for an emission unit or group of emission units of a single type identified in subdivision (2) of this subsection is further limited by this section, unless otherwise determined by a permit or order of the commissioner, provided the owner or operator operates the emissions unit or group of emissions units to comply with all applicable requirements of subsections (b) and (c) of this section. The potential emissions of such emission unit or group of emission units of a single type shall be less than the following levels:

(A) For each individual air pollutant including nitrogen oxides, carbon monoxide, particulate matter, PM10, PM2.5, volatile organic compounds, sulfur dioxide or lead, fifteen (15) tons per year;

(B) For any individual federal hazardous air pollutant, ten (10) tons per year;

(C) For the aggregate of federal hazardous air pollutants, ten (10) tons per year; and

(D) For carbon dioxide equivalent emissions, ten thousand (10,000) tons per year.

(2) The owner or operator of any new or existing external combustion unit, automotive refinishing operation, nonmetallic mineral processing equipment, emergency engine or surface coating operation may limit potential emissions for all such emission units included at a stationary source pursuant to subdivision (1) of this subsection.

(b) **Operating requirements**.

(1) The owner or operator of an external combustion unit or units using gaseous fuel and operating to limit potential emissions in accordance with this section shall:

(A) Limit gaseous fuel purchased for the premises to equal to or less than 100 million cubic feet in any calendar year; and

(B) Not exceed a heat input for each external combustion unit of 50 mmBTU/hr.

(2) The owner or operator of an external combustion unit or units using distillate oil or

a blend of distillate oil and biodiesel fuel and operating to limit potential emissions in accordance with this section shall:

(A) Limit distillate oil purchased, inclusive of blends of distillate oil and biodiesel fuel, for the premises to equal to or less than 328,000 gallons in any calendar year; and

(B) Not exceed a heat input for each external combustion unit of 25 MMBtu/hr.

(3) The owner or operator of an external combustion unit or units using residual oil, or a blend of residual oil and biodiesel fuel, and operating to limit potential emissions in accordance with this section shall:

(A) Limit residual oil purchased, inclusive of blends of residual oil and biodiesel fuel, for the premises to equal to or less than 89,000 gallons in any calendar year; and

(B) Not exceed a heat input for each external combustion unit of 15 MMBtu/hr.

(4) The owner or operator of an external combustion unit or units using propane and operating to limit potential emissions in accordance with this section shall:

(A) Limit propane purchased for the premises to equal to or less than 736,000 gallons in any calendar year; and

(B) Not exceed a heat input for each external combustion unit of 50 mmBTU/hr.

(5) The owner or operator of an emergency engine or engines using gaseous fuel and operating to limit potential emissions in accordance with this section shall limit gaseous fuel purchase for the premises to equal to or less than three million three hundred sixty thousand (3,360,000) cubic feet in any calendar year.

(6) The owner or operator of an emergency engine or engines using distillate oil, or a blend of distillate oil and biodiesel fuel, and operating to limit potential emissions in accordance with this section shall limit distillate oil purchase for the premises, inclusive of blends of distillate oil and biodiesel fuel, to equal to or less than 21,000 gallons in any calendar year.

(7) The owner or operator of an emergency engine or engines using propane and operating to limit potential emissions in accordance with this section shall limit propane purchase for the premises to equal to or less than 100,000 gallons in any calendar year;

(8) The owner or operator of an automotive refinishing operation operating to limit potential emissions in accordance with this section shall limit VOC containing coating or solvent purchase for the premises to equal to or less than 1,000 gallons in any calendar year.

(9) The owner or operator of nonmetallic mineral processing equipment operating to limit potential emissions in accordance with this section shall limit fuel oil purchase for the premises to equal to or less than 22,000 gallons in any calendar year.

(10) The owner or operator of surface coating equipment operating to limit potential emissions in accordance with this section shall limit purchase for the premises of VOC containing coatings, including diluents and cleanup solvents but excluding water, to equal to or less than 1,500 gallons in any calendar year.

(c) **Records.**

(1) The owner or operator of any source that is operating to comply with the requirements of subsection (b) of this section shall maintain purchase records to demonstrate compliance

with applicable fuel, coating and solvent limitations.

(2) The owner or operator of any source shall make purchase records maintained pursuant to subdivision (1) of this subsection available to the commissioner to inspect and copy upon request.

(3) The owner or operator of any source maintaining purchase records pursuant to subdivision (1) of this subsection shall maintain such records for five (5) years from the date such records are created.

(d) **Applicable law.** Nothing in this section shall relieve an owner or operator from any obligation to comply with:

(1) The requirements of 40 CFR 63, Subpart B as implemented in section 22a-174-3a(m) of the Regulations of Connecticut State Agencies; and

(2) Any other applicable federal, state or local law.

(e) **Individual application**.

(1) Nothing in this section shall preclude the commissioner from requiring an owner or operator to obtain an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies.

(2) An owner or operator who has filed an application for an individual permit pursuant to subdivision (1) of this subsection shall comply with the requirements of this section while such application is pending.

(Adopted effective March 15, 2002; Amended April 4, 2006; Amended February 1, 2010; Amended April 6, 2016; Amended March 14, 2024)

Sec. 22a-174-3d. Permit-by-Rule for Combined Heat-and-Power Systems.

(a) **Definitions.** For the purposes of this section, the following definitions apply:

(1) "Actual electrical output" means the gross electrical output measured at the terminals of the generator in units of MWh or kWh;

(2) "Actual heat input" means the gross caloric value of all fuels combusted by the CHP system in MMBtu;

(3) "Actual system efficiency" means, for a CHP system, the sum of the actual thermal output and actual electrical output as MMBtu divided by the actual heat input based on the higher heating value, and measured as a percent;

(4) "Actual thermal output" means the total energy output of thermal energy of the CHP system in MMBtu;

(5) "Annual capacity factor" means the ratio between the actual heat input to a CHP system from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the CHP system from all fuels had the unit been operated at 8,760 hours/year at the maximum design heat input capacity;

(6) "Combined heat-and-power system" or "CHP system" means a generation unit that simultaneously produces both electric power and thermal energy from a single source and that has a design system efficiency equal to or greater than 55%;

(7) "Design system efficiency" means, for a CHP system, the sum of the full load design

actual thermal output and electric output divided by the heat input;

(8) "ISO conditions" means the International Organization for Standardization conditions used by the gas turbine industry, which are 59ºF, 14.7 pounds per square inch absolute and 60% relative humidity;

(9) "Maximum design heat input capacity" means the ability of a CHP system's generation unit to combust a stated maximum amount of fuel, or combination of fuels, on a steady-state basis as determined by the physical design and characteristics of the generation unit;

(10) "Nameplate capacity" means, starting from the initial installation of a generator, the maximum electrical generating output (in MW) that the generator is capable of producing on a steady-state basis and during continuous operation, when not restricted by seasonal or other derates, as specified by the manufacturer of the generator. If the owner makes any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MW) that the generator is capable of producing on a steady-state basis and during continuous operation, when not restricted by seasonal or other derates, such increased maximum amount as specified by the person conducting the physical change shall be considered the "nameplate capacity;"

(11) "Nearby" means, for a building, situated at a distance from the source less than or equal to five times the lesser of the building height or maximum projected building width;

(12) "Shutdown" means the cessation of operation of a CHP system for any purpose;

(13) "Startup" means the setting in operation of a CHP system for any purpose;

(14) "Tune-up" means to perform maintenance and adjust equipment to a proper or required operating condition in accordance with the manufacturer's written recommendations; and

(15) "12-month rolling aggregate" means the sum of a variable over the most recent 12 calendar months, computed monthly.

(b) **Applicability.**

(1) An owner or operator may construct and operate a CHP system without obtaining an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies if:

(A) The CHP system has potential emissions of fifteen (15) tons or more per year of any individual air pollutant;

(B) The CHP system is not a new major stationary source or major modification of an existing source;

(C) The CHP system is not a newly constructed or reconstructed major source of federal hazardous air pollutants subject to the requirements of section 22a-174-3a(m) of the Regulations of Connecticut State Agencies; and

(D) The owner or operator complies with all applicable provisions of this section.

(2) An owner or operator may modify a CHP system without obtaining an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies if:

(A) Prior to the modification, the CHP system is not authorized to operate pursuant to

an individual permit issued pursuant to section 22a-174-3a or former section 22a-174-3 of the Regulations of Connecticut State Agencies;

(B) The modification is not a major modification or a reconstruction; and

(C) The owner or operator complies with all applicable provisions of this section.

(3) An owner or operator may only operate a CHP system pursuant to this section if construction of the CHP system commences on or after the effective date of this section.

(c) **Emissions limits and other requirements.**

(1) The nameplate capacity for any CHP system shall be less than 10 MW.

(2) The aggregate of the nameplate capacity for the CHP system and the nameplate capacity for all other fossil fuel-fired electricity generating units, excluding emergency generators, located at the same premises shall, at the time of construction, be less than 10 MW.

(3) Except during periods of startup, shutdown, malfunction, and, as allowed by the Commissioner during performance testing, the actual system efficiency of any CHP system operated pursuant to this section shall be no less than 55% per each consecutive 12-month period.

(4) The owner or operator of a CHP system shall use only the following fuels in the specified generation unit:

(A) Natural gas shall be the primary fuel combusted by a combustion turbine and the only fuel combusted by an internal combustion engine; and

(B) Distillate fuel oil may be combusted as an auxiliary fuel by a combustion turbine, as follows:

(i) Distillate fuel oil combusted shall contain less than or equal to 0.0015% sulfur, by weight, and

(ii) The annual capacity factor for all distillate fuel oil combusted in a combustion turbine shall not exceed 10% on a heat input basis.

(5) The height of any stack associated with the CHP system shall be no less than the greater of:

(A) 10 meters; or

(B) The lesser of:

(i) The maximum nearby building projected width, or

(ii) The maximum nearby building height multiplied by a factor of 1.3.

(6) If a combustion turbine is used as the generation unit of a CHP system, emissions shall not exceed the emission limits set forth in Table 3d-1 of this section, except during periods of startup, shutdown or malfunction.

(7) If an internal combustion engine is used as the generation unit of a CHP system, emissions shall not exceed the emission limits set forth in Table 3d-2 of this section, except during periods of startup, shutdown or malfunction.

(8) The emission limits for NOx, CO and ammonia set forth in Table 3d-1 of this section are corrected to ISO conditions at 15% oxygen.

Table 3d-1. CHP system combustion turbine emissions limits.

Pollutant	Emission limit while firing natural gas	Emission limit while firing distillate fuel	Averaging time, except as specified for a performance test approved by the Department
NOx	2.5 ppmvd @ 15% oxygen	9.6 ppmvd @ 15% oxygen	1-hour block
CO	10 ppmvd @ 15% oxygen	10 ppmvd @ 15% oxygen	3-hour block
PM10/2.5	2 lbs/hr	3 lbs/hr	1-hour block
Ammonia	5.0 ppmvd @ 15% oxygen	5.0 ppmvd @ 15% oxygen	1-hour block

Table 3d-2. CHP system internal combustion engine emissions limits while firing natural gas.

Pollutant	Emission limit lbs/MMBtu	Averaging time, except as specified for a performance test approved by the Department
NOx	0.08	1-hour block
CO	0.17	3-hour block
PM10/2.5	0.02	1-hour block

(9) An owner or operator shall operate a CHP system in compliance with the applicable emissions limits set forth in Table 3d-1 or Table 3d-2 of this section.

(10) An owner or operator shall determine compliance with the applicable emissions limits set forth in Table 3d-1 or Table 3d-2 of this section through performance testing or continuous monitoring as specified in subsections (e) and (f) of this section.

(11) Annual emissions limitations. An owner or operator of a CHP system:

(A) With a combustion turbine shall not allow the emissions of NOx, CO, PM10, PM2.5 or ammonia to exceed 15 tons per pollutant in any 12-month rolling aggregate;

(B) With an internal combustion engine shall not allow the emissions of NOx, CO, PM10 or PM2.5 to exceed 15 tons per pollutant in any 12-month rolling aggregate; and

(C) Shall not allow the aggregate emissions of federal hazardous air pollutants to exceed 3 tons in any 12-month rolling aggregate.

(d) **Operating practices.**

(1) The owner or operator of a CHP system shall perform a tune-up of the combustion unit and all air pollution control equipment at least once per calendar year and in accordance with the manufacturer's written specifications.

(2) The owner or operator of a CHP system shall operate air pollution control equipment at all times that the system is in operation and maintain such control equipment according to the manufacturer's written recommendations.

(3) In the event of a malfunction of air pollution control equipment that cannot be corrected within three hours of the discovery of the malfunction, the owner or operator shall immediately shutdown the CHP system.

(4) To minimize emissions during periods of startup and shutdown, the owner or operator shall:

(A) If ammonia injection is used, commence ammonia injection as soon as the minimum catalyst temperature is reached;

(B) If using an oxidation catalyst system, not bypass the oxidation catalyst except during such time as bypass may be recommended in the manufacturer's written recommendations for operation;

(C) Limit the duration of startup to 60 minutes or less, unless a longer time period is specified in the manufacturer's written recommendations; and

(D) Limit the duration of shutdown to 30 minutes or less, unless a longer time period is specified in the manufacturer's written recommendations.

(e) **Performance testing.**

(1) The owner or operator of a CHP system shall conduct an initial performance test to determine compliance with the applicable emissions limits of this section. A performance test conducted in accordance with the applicable provisions of 40 CFR 60, 61 or 63 for the pollutants listed in Tables 3d-1 and 3d-2 of this section shall satisfy the initial performance test requirements on a per pollutant basis, provided the testing is performed in accordance with subdivision (3) of this subsection. The initial performance test shall be conducted no later than the earlier of the dates determined by subparagraph (A) or (B) of this subdivision, as follows:

(A) 60 days after achieving the maximum production rate; or

(B) 180 days after initial startup.

(2) Following the initial performance test, the owner or operator of the CHP system shall conduct subsequent performance testing at least once every 60 months for each pollutant to which an emission limit applies, except that the owner or operator of a CHP system shall not be required to conduct performance tests subsequent to the initial performance test for any pollutant that the owner or operator monitors using continuous emissions monitoring. A performance test conducted in accordance with the applicable provisions of 40 CFR 60, 61 or 63 for the pollutants listed in Tables 3d-1 and 3d-2 shall satisfy the subsequent performance test requirements on a per pollutant basis, provided the testing is performed in accordance with subdivision (3) of this subsection.

(3) Unless otherwise specified in this subsection, all performance testing shall be conducted in accordance with the Department's Source Emissions Monitoring Test Guidelines, section 22a-174-5 of the Regulations of Connecticut State Agencies and the following:

(A) Ammonia testing shall be conducted in accordance with EPA Conditional Test Method (CTM) 027 or an equivalent method approved by the Commissioner and the Administrator;

(B) PM10/2.5 testing shall be conducted in accordance with 40 CFR 60, Appendix A, Reference Method 201A or an equivalent method approved by the Commissioner and the Administrator; and

(C) Any test conducted under this section shall be completed within 24 hours of initiation unless completion in such time would endanger public health or safety.

(f) **Monitoring.**

(1) An owner or operator of a CHP system shall demonstrate compliance for each pollutant to which an emission limit applies in Table 3d-1 or 3d-2, as follows:

(A) By performing an initial performance test as required by subsection (e) of this section;

(B) Through performance testing conducted at least once every 60 months subsequent to the initial performance test, as required by subsection (e) of this section, or through continuous emissions monitoring. If continuous emissions monitoring is used to determine compliance with an emissions limitation of this section, the owner or operator of a CHP system shall meet the requirements of section 22a-174-4a of the Regulations of Connecticut State Agencies; and

(C) Through continuous parameter monitoring, by which the owner or operator shall monitor appropriate parameters to verify the proper operation of the emission controls. The range for such parameters shall be determined during the initial performance test required pursuant to subsection (e)(1) of this section.

(2) The owner or operator of a CHP system shall monitor the actual system efficiency on an hourly basis.

(3) An owner or operator shall prepare a written monitoring plan to address monitoring of emissions, CHP system operating parameters and air pollution control equipment operating parameters. The plan shall be prepared no later than 60 days following the completion of the initial performance test required by this section. The monitoring plan shall include, at a minimum, the following information as may be applicable to the CHP system and chosen methods of determining compliance with the requirements of this section:

(A) A description of how all pollutants and parameters will be monitored to demonstrate compliance with the emissions limits set forth in Tables 3d-1 and 3d-2, as applicable, of this section;

(B) Definitions of startup, shutdown and malfunction;

(C) A description of the method and a sample calculation by which emissions during startup, shutdown and malfunction will be determined;

(D) An identification of all the parameters to be monitored, including the following:

(i) For CHP systems that use selective catalytic or non-catalytic reduction to meet the NOx limits of this section, monitored parameters shall include but not be limited to the hourly ammonia injection rate, oxygen content of the exhaust, exhaust temperature, fuel firing rate and pressure drop across the catalyst,

(ii) For turbine CHP systems that use low-NOx burner technology, monitored parameters

shall include, but not be limited to, the operating characteristics specified by the burner manufacturer to indicate the unit is operating in low-NOx mode, and

(iii) For CHP systems that use an oxidation catalyst to meet the CO limits of this section, monitored parameters shall include, but not be limited to, the exhaust gas temperature and the pressure drop across the catalyst;

(E) A specification of the ranges or designated conditions of the parameters, and a description of the process by which such ranges or designated conditions have been established during the initial performance test;

(F) An explanation of the process used to ensure that the data obtained is representative of the emissions or parameters being monitored using such considerations as detector location or the installation specification;

(G) A description of the quality assurance and control practices to ensure the continuing validity of the data; and

(H) A description of the frequency of monitoring and the data collection procedures that the owner or operator will use.

(4) A monitoring plan established to satisfy requirements of 40 CFR 60, 61 or 63 applicable to the CHP system may be used to satisfy the monitoring plan requirements of this section, provided the plan is supplemented to address all the requirements of this section.

(5) The owner or operator shall maintain the monitoring plan at the facility where the CHP system is located and make the plan available to the Commissioner upon request. The owner or operator shall review the monitoring plan on an annual basis and update the plan as needed.

(g) **Record keeping.**

(1) The owner or operator of a CHP system shall maintain records of the information specified in this subsection. All records made to determine compliance with the requirements of this section shall be:

(A) Made available to the Commissioner to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created, unless another time is specified.

(2) The owner or operator of a CHP system shall record:

(A) The fuel type and quantity used, in gallons or cubic feet, for each month and each 12-month rolling aggregate;

(B) The hours of operation for each fuel fired for each month and each 12-month rolling aggregate;

(C) Data from all continuous monitoring conducted pursuant to this section;

(D) The test reports and supporting calculations documenting the results of the initial and all subsequent performance tests conducted to determine compliance with the emission limits specified in this section;

(E) The monthly and 12-month rolling aggregate emissions of PM10, PM2.5, NOx, CO, aggregate federal hazardous air pollutants and ammonia, as applicable, in units of tons and including emissions during startups, shutdowns and malfunctions. Such records shall include

a sample calculation for each pollutant. The owner or operator shall record each month's emissions data within 30 days of the end of the month for which the data is recorded;

(F) If distillate fuel is used, the sulfur content for each fuel shipment received;

(G) The air pollution control equipment design specifications including:

(i) Type(s) of control equipment,

(ii) Make and model number,

(iii) Pollutants controlled, and

(iv) Catalyst type and configuration, if applicable;

(H) Inspections and tune-ups of the CHP system or air pollution control equipment including:

(i) The date performed,

(ii) The name of person performing tune-up and/or inspection,

(iii) The procedures followed, and

(iv) The results and any corrective actions taken;

(I) The occurrence and duration of any startup, shutdown, or malfunction in the operation of the CHP system and any malfunction of the air pollution control equipment including:

(i) The type of event (startup, shutdown or malfunction),

(ii) The equipment affected,

(iii) The date of event,

(iv) The duration of event in minutes,

(v) The fuel used during event,

(vi) The corrective actions take to address malfunction, and

(vii) The total NO_x and CO emissions emitted (lbs) during the event using either uncontrolled emission rates or manufacturer supplied data;

(J) The actual CHP system efficiency for each month and each 12-month rolling period. Such records shall include a sample calculation. The owner or operator shall record each month's actual system efficiency and each 12-month rolling actual system efficiency within 30 days of the end of each month;

(K) The nameplate capacity for the CHP system and every other electric generating unit at the premises, individually and in aggregate;

(L) The annual capacity factor for all distillate fuel oil combusted, if the CHP system uses a turbine; and

(M) A plot plan of the facility and CHP system with information sufficient to demonstrate compliance with the stack height requirements of subsection (c)(5) of this section. Such a plot plan shall be maintained for the operating life of the CHP system.

(h) **Reporting.**

(1) Any person intending to operate a CHP system pursuant to this section shall submit a notification to the Commissioner on a form designated by the Commissioner no later than 30 days after beginning actual construction.

(2) No later than 60 days after the completion of a performance test conducted pursuant to this section, the owner or operator shall submit to the Commissioner a complete

performance test report detailing the operating parameters and emissions results of that performance test.

(3) The owner or operator of a CHP system operating pursuant to this section shall, upon request by the Commissioner, submit information regarding air pollutant emissions from the CHP system and any other stationary sources located on the premises.

(4) The owner or operator of a CHP system operating pursuant to this section shall submit a notification to the Commissioner within 15 days of any violation of a requirement in this section.

(5) The owner or operator shall notify the Commissioner within 30 days after removing or rendering non-operational a CHP system for which a notification of operation was submitted pursuant to subsection (h)(1) of this section.

(6) Any report required to be submitted to the Commissioner by this section shall include a certification signed in accordance with section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies.

(7) Any document required to be submitted to the Commissioner pursuant to this section shall, unless otherwise specified in writing by the Commissioner, be directed to: Supervisor; Compliance Assurance and Coordination Unit; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

(i) **Application for an individual permit.**

(1) Nothing in this section shall preclude the Commissioner from requiring an owner or operator of a CHP system to obtain an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies.

(2) Nothing in this section shall preclude an owner or operator of a CHP system from applying for an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies, if applicable.

(Effective June 27, 2013; Amended October 28, 2022; Amended March 14, 2024)

Sec. 22a-174-4. Source monitoring, record keeping and reporting (Repealed)

Repealed October 28, 2022.

(Effective February 1, 1989; Amended April 1, 2004; Repealed October 28, 2022)

Sec. 22a-174-4a. Source monitoring, record keeping and reporting

(a) Definitions.

For the purposes of this section, the following definitions shall apply. Any term not defined in this subsection shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies (RCSA).

(1) "Calendar Quarter" means a consecutive three (3) month non-overlapping period beginning on January 1, April 1, July 1 or October 1.

(2) "Continuous Emission Monitoring System" or "CEMS" means the components necessary to sample, quantify, record and store source emission data used for compliance

with a standard. A continuous emission rate monitoring system shall be considered a "CEMS."

(3) "Continuous Opacity Monitoring System" or "COMS" means a monitoring system that measures the light obscuring properties of the exhaust gases from a source.

(4) "Diluent" means a major gaseous constituent in a gaseous pollutant mixture.

(5) "Initial certification" means an audit or series of audits that define the start of a valid data stream from a newly installed CEMS or COMS. A passing "initial certification" also validates conditionally valid data recorded prior to the completion of the "initial certification."

(6) "Modified CEMS or COMS" means a continuous monitoring system that undergoes significant change or repair on or after the effective date of this section, where the change or repair may affect the representativeness of the sample or may impact the ability of the system to measure or record emissions accurately.

(7) "New CEMS or COMS" means a continuous monitoring system that began operating on or after the effective date of this section.

(8) "Nuisance" means emissions from a source that injure or endanger the public health, safety or welfare.

(9) "Out-of-control period" means a period of time when a CEMS or COMS data is considered invalid. Data may be considered invalid for failure to conduct a required audit, a failed quality assurance audit, or instrument malfunction. An "out-of-control period" commences when the data have been determined to be invalid and ends when the CEMS or COMS is repaired, recalibrated, or re-certified or with the completion of a successful quality control audit, as necessary.

(10) "Re-certification" means, for a CEMS or COMS, a declaration of data validity by means of appropriate repair, replacement of components, or sufficient quality assurance and control measures, following the initial certification.

(11) "Relative Accuracy Test Audit" or "RATA" means a test procedure to determine the difference between an emission rate determined by a CEMS and the value determined by a reference method, as specified in Appendix F to 40 CFR 60 and Appendix A to 40 CFR 75, as applicable.

(12) "Stack test" means a performance or source test. A "stack test" measures the amount of one or more specific pollutants, diluents, or surrogates being emitted; demonstrates the capture efficiency of a capture system; or determines the destruction or removal efficiency of a control device used to reduce emissions at a facility subject to the requirements of the Clean Air Act.

(b) Applicability.

(1) The Commissioner may, by written notice, require the owner or operator of a source to create, maintain and submit data, records or reports of monitoring data and other information deemed necessary by the Commissioner to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder. Such information shall be recorded, compiled and submitted in a manner prescribed by the

Commissioner. The written notice shall provide the date by which such data, records or reports shall be submitted to the Commissioner.

(2) The provisions of this section shall apply to the owner or operator of a source that is required to install, operate and maintain a COMS or CEMS to monitor a pollutant or diluent by a federal regulation or by a regulation, permit or order issued by the Commissioner.

(3) Any owner or operator of a source listed in this subdivision shall install, operate and maintain COMS, and maintain records and reports as required by this section:

(A) Equipment that combusts coal;

(B) Liquid or solid fuel-burning equipment with a maximum rated heat input greater than or equal to two hundred fifty million Btu per hour (250,000,000 Btu/hr);

(C) Incinerator with a maximum rated input in excess of two thousand pounds per hour (2,000 lbs/hr); or

(D) A process source with particulate matter emissions exceeding twenty-five pounds per hour (25 lbs/hr) after the application of control equipment, when operated at maximum rated capacity.

(4) If, for a pollutant emitted from a source of air pollution, the Commissioner determines that a CEMS or COMS is reasonably available, technically feasible, economically feasible and necessary for the Commissioner to obtain emission or opacity data to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder, the Commissioner may require, by written notice to the owner or operator of such source, the installation and operation of a CEMS or COMS. Such written notice shall be in the form of a regulation, permit or order and shall include requirements for installation and operation including a date by which such installation and operation is to commence.

(5) If the Commissioner determines that a CEMS or COMS is not reasonably available for a pollutant emitted from a source of air pollution, the Commissioner may, by written notice, require the owner or operator of such source to comply with an alternative monitoring technique or conduct intermittent stack testing to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder. Such written notice shall be in the form of a regulation, permit or order and shall include the requirements for such alternative monitoring or testing including a day by which such alternative monitoring or testing is to commence.

(c) Exemptions.

(1) The provisions of subdivision (3)(A) of subsection (b) of this section, concerning equipment that combusts coal, shall not apply to:

(A) Any space heater installed in any single-family home on or before May 1, 1975, provided that such space heater does not combust coal with a sulfur content greater than or equal to 0.3% by weight (dry basis);

(B) Any equipment that combusts coal in a commercial establishment in regular operation on or before May 1, 1975, provided that such coal burning equipment does not combust coal with a sulfur content greater than or equal to 0.3% by weight (dry basis) and coal consumption is less than seventy-five (75) tons per year; or

(C) Any equipment that combusts coal used primarily for educational or historical demonstrations or exhibits, provided that such coal burning equipment does not combust coal with a sulfur content exceeding one and one-half percent (1.5%) by weight (dry basis). Such coal burning equipment includes, but is not limited to, blacksmiths' forges, steam locomotives, and steamboats.

(2) The provisions of subdivision (3)(B) of subsection (b) of this section shall not apply to:

(A) Any stationary fuel-burning equipment operating less than one hundred sixty-eight (168) hours in a calendar year. For the purpose of this subparagraph, the term "operating" does not include emissions testing or operating only to maintain reliability in emergency situations; or

(B) Turbines combusting natural gas, liquid fuel or a mixture of liquid fuel and natural gas that comply with the applicable particulate matter and opacity limitations set forth in section 22a-174-18 of the Regulations of Connecticut State Agencies without utilizing pollution control equipment.

(3) Any owner or operator who claims exemption from the requirement to install a COMS as provided in subdivision (1) or (2) of this subsection shall, upon notice from the Commissioner, install, operate and maintain a COMS according to this section, and comply with this section, if the Commissioner finds:

(A) Noncompliance with section 22a-174-18 of the Regulations of Connecticut State Agencies has occurred;

(B) Noncompliance with the applicable requirements, limitations or restrictions set forth in this subsection has occurred;

(C) Operation of the subject source has interfered with or is likely to interfere with the attainment or maintenance of an ambient air quality standard or create a nuisance; or

(D) Monitoring equipment is technically feasible, economically feasible and needed to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder, and federal regulations.

(4) The notice provided for in subdivision (3) of this subsection shall be in the form of a permit or order and shall specify requirements for a COMS installation and operation including a date by which such installation and operation is to commence.

(5) Reserved.

(6) Reserved.

(d) Performance specifications.

(1) The owner or operator of a source required to install, operate and maintain a CEMS or COMS pursuant to this section shall meet the performance specifications as defined in subparagraphs (A) and (B) of this subdivision for each pollutant or diluent that is required to be monitored, except as specified in subdivision (2) of this subsection:

(A) The owner or operator of a source required to install, operate and maintain a CEMS shall meet the performance specification applicable to each pollutant or diluent being monitored as set out in 40 CFR 60, Appendix B, as amended from time to time; or

(B) The owner or operator of a source required to install, operate and maintain a COMS shall meet performance specification 1 as set forth in 40 CFR 60, Appendix B, as amended from time to time.

(2) Any owner or operator of a source required to install, operate and maintain a CEMS that is subject to 40 CFR 75 shall meet the applicable performance specification requirements in 40 CFR 75, Appendix A, as amended from time to time. If a CEMS is subject to both 40 CFR 60 and 40 CFR 75 requirements, the owner or operator may elect to comply only with the performance specifications of 40 CFR 75, as amended from time to time, in lieu of complying with the performance specifications of both 40 CFR 60 and 40 CFR 75, insofar as allowed by any applicable federal or state statute or regulation or any permit or order issued by the Commissioner.

(3) If a performance specification for a particular pollutant does not exist in 40 CFR 60, Appendix B, the owner or operator of a source subject to this section shall follow a specification defined by the Commissioner in a guideline, regulation, permit or order applicable to such source to ensure the predictability and consistency of a CEMS for a pollutant.

(e) Monitoring plan.

(1) Initial monitoring plan. Unless otherwise specified by permit or order of the Commissioner, the owner or operator of any source who is required to install, operate and maintain a CEMS or COMS pursuant to this section shall submit a monitoring plan to the Commissioner for approval. The monitoring plan shall be submitted electronically to the Commissioner not less than ninety (90) days before the initiation of the performance specification testing required by this section. The initial monitoring plan shall contain the following information:

(A) A brief description of the source, including, the type of unit or process, type of fuel combusted, type or types of emission control devices, and operational parameters;

(B) A description of the monitoring equipment design, proposed or current monitor location and sampling site location. Such description shall include facility schematics and engineering drawings of the monitoring and sample probe locations; data acquisition system specifications; analytical monitoring technique; make, model and serial number of each monitor; and sampling system design;

(C) The performance specification testing for each pollutant to be conducted by the owner or operator as required by this subsection; and

(D) Procedures and reports, including quality assurance and quality control plans and audits, procedures and performance specifications, procedures for calibration, calibration drift determination and adjustment, preventative maintenance and repair, data recording, calculations, exceedances, data availability, and corrective action for monitoring system breakdowns.

(2) Revised monitoring plan. If an existing CEMS or COMS undergoes significant change that makes a previously submitted monitoring plan inaccurate, a revised monitoring plan shall be submitted electronically to the Department, for approval, not later than fourteen

(14) days after completion of the CEMS or COMS modification. The revised monitoring plan shall contain the information listed in subparagraphs (A) through (D) of subdivision (1) of this subsection.

(3) Hard copies or electronic copies of monitoring plans (initial and revised) shall be maintained at the source and available to source facility staff at all times and to the Department upon request.

(4) Not later than one hundred twenty (120) days after the effective date of this section, the owner or operator of a source subject to this section shall submit an initial or revised monitoring plan in accordance with subdivision (1) or (2) of this subsection, as applicable. Such initial or revised monitoring plan shall replace any monitoring plan submitted prior to the effective date of this section.

(5) The Commissioner shall issue a written approval of each initial or revised monitoring plan submission required by subdivision (4) of this subsection. The owner or operator of the stationary source shall maintain such written approval as a record.

(f) Quality assurance and quality control requirements.

(1) The owner or operator of any source required to install, operate and maintain a CEMS or COMS pursuant to this section shall meet the quality assurance requirements specified in this subsection.

(2) The owner or operator of any source that is required to install, operate and maintain a CEMS or COMS pursuant to this section shall perform annual, quarterly and daily quality assurance audits, as follows:

(A) The owner or operator of any source required to monitor a pollutant or diluent in accordance with 40 CFR 75 shall meet the applicable quality assurance requirements of 40 CFR 75, Appendix B, as amended from time to time, for a CEMS for each monitored pollutant or diluent. The owner or operator of any source required to monitor a pollutant or diluent in accordance with both 40 CFR 75 and 40 CFR 60 may elect to comply only with the quality assurance provisions of 40 CFR 75, as amended from time to time, in lieu of complying with the quality assurance provisions of both 40 CFR 60 and 40 CFR 75, insofar as allowed by any applicable federal or state statute or regulation or any permit or order issued by the Commissioner;

(B) The owner or operator of any source that is not subject to 40 CFR 75 for a pollutant or diluent and that is required to install, operate and maintain a CEMS or COMS shall meet the applicable quality assurance requirements of 40 CFR 60, Appendix F, as amended from time to time; or

(C) As defined by the Commissioner in a guideline, regulation, permit or order applicable to such source to ensure the predictability and consistency of a CEMS for a pollutant.

(3) Each new CEMS shall undergo an initial certification for each monitored pollutant, including a Relative Accuracy Test Audit certification.

(4) Each modified CEMS shall undergo a re-certification for each pollutant or diluent for which the continuous emissions monitor was modified.

(5) An initial certification or re-certification shall be conducted in accordance with one

of the following methods, as applicable:

(A) 40 CFR 60, Appendix B, as amended from time to time;

(B) 40 CFR 75, Appendix A, as amended from time to time; or

(C) An alternative method approved by the Commissioner for a pollutant for which a method is not established in 40 CFR 60 or 40 CFR 75. An owner or operator shall submit a request to the Commissioner for such alternative method in writing with a justification for the use of such method.

(g) Data availability.

(1) The owner or operator of any source required to install, operate and maintain a CEMS or COMS in accordance with this section shall meet the data availability requirements of this section on an emission limitation-specific basis.

(2) While the source is operating, the owner or operator shall operate a required CEMS and COMS pursuant to section 22a-174-7(b) of the Regulations of Connecticut State Agencies, and allowable periods of missing data shall apply only to periods of deliberate shutdown allowed by section 22a-174-7(b) of the Regulations of Connecticut State Agencies, or as otherwise provided under this subsection.

(3) Pollutant and diluent data shall be available for no less than ninety percent (90%) of the total operating hours of the source in any calendar quarter, unless subject to a more stringent minimum data availability requirement in any applicable federal or state statute or regulation or any permit or order issued by the Commissioner.

(4) For opacity, data shall be available for no less than ninety-five percent (95%) of the total operating hours of the source in any calendar quarter, unless subject to a more stringent minimum data availability requirement in any applicable federal or state statute or regulation or any permit or order issued by the Commissioner.

(5) Percent data availability shall be calculated using the following equation:

$$\%\ \text{Data Availability} = \left(\frac{\text{Unit Operating Time} - \text{Monitoring Downtime}}{\text{Unit Operating Time}}\right) * 100$$

WHERE:

Unit operating time = Total hours of source operation at any level during the calendar quarter.

Monitoring downtime = Total hours of source operation at any level during the calendar quarter

where either no CEMS or COMS data was collected or the CEMS or COMS data was invalid.

Such periods include quality assurance activities such as calibration, preventative maintenance, and

calibration drift exceedances or failed quality assurance audits.

(6) The Commissioner may waive the minimum data availability requirements contained in subdivision (3) or (4), as applicable, of this subsection if the owner or operator of the stationary source can demonstrate to the Commissioner's satisfaction that such data

availability was not reasonably achievable. The Commissioner shall consider, at a minimum, the following information:

(A) The actual operating hours of the stationary source;

(B) The duration of and nature of the CEMS or COMS downtime; and

(C) The actual data availability achieved during the calendar quarter.

(7) During an out-of-control period, the CEMS data may not be used in calculating emission compliance nor be counted towards meeting minimum data availability.

(h) Record keeping.

The owner or operator of any source subject to subsection (b) of this section shall maintain all data, documents and reports required by this section for a minimum of five (5) years from the date each datum, document or report is created.

(i) Reporting.

(1) Upon written notice, the Commissioner may require the owner or operator of a stationary source subject to this section to provide all applicable CEMS or COMS data, in a format acceptable to the Commissioner, for the time period identified in such written notice.

(2) Any owner or operator of any emission unit that is required to install and operate a CEMS or COMS by a regulation, permit or order shall submit to the Commissioner a monitoring plan in accordance with the provisions specified in subsection (e) of this section.

(3) Audit reports. Any owner or operator of any emission unit that is required to install and operate a CEMS or COMS by a regulation, permit or order, shall submit to the Commissioner an audit report each calendar quarter, in accordance with the requirements specified in subsection (f) of this section. Such report shall be submitted to the Commissioner not later than thirty (30) days after the end of each calendar quarter.

(4) Quarterly CEMS or COMS reports. Any owner or operator of any emission unit that is required to install and operate a CEMS or COMS by a regulation, permit or order, shall submit to the Commissioner, on forms prescribed by the Commissioner, a quarterly report summarizing the excess emissions and the CEMS or COMS performance. Such report shall be submitted to the Commissioner not later than thirty (30) days after the end of each calendar quarter in which data was collected. Each quarterly report shall include, at a minimum, the following information:

(A) A list of all periods of excess emissions that includes:

(i) Date and time of commencement and completion of each period of excess emissions,

(ii) The measured value of excess emissions,

(iii) The cause or likely cause of the excess emissions, and

(iv) Corrective actions and future preventative measures;

(B) A completed excess emissions summary form prescribed by the Commissioner;

(C) A completed CEMS or COMS performance form prescribed by the commissioner which includes calculation of data availability for each pollutant and diluent, as specified in subsection (g) of this subsection; and

(D) A list of all periods of malfunctions of the CEMS or COMS that includes:

(i) Date and time of commencement and completion of each malfunction period,

(ii) Cause or likely cause of malfunction, and

(iii) Corrective actions and future preventative measures.

(5) Not less than sixty (60) days prior to the proposed test date for an initial certification, an owner or operator of a CEMS or COMS shall complete and submit to the Department a form prescribed by the Commissioner, indicating the owner or operator's intent to complete such test.

(6) Not less than forty-five (45) days prior to the proposed test date for an annual RATA or a re-certification, each owner or operator of a CEMS shall complete and submit to the Department a form prescribed by the Commissioner, indicating each owner's or operator's intent to complete such test.

(7) The Commissioner may, in writing, request written documentation from the owner or operator of equipment exempt from the applicability of this section as provided in subsection (c) of this section to determine if an exemption is correctly applied. Each owner or operator shall deliver such documentation to the Commissioner not later than thirty (30) days after receipt of such a written request.

(8) Any document, data, plan, record or report required to be submitted to the Commissioner under this section shall include the following certification signed by a person authorized by such owner or operator to execute and deliver the certification on behalf of such owner or operator:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 or section 53a-157b of the Connecticut General Statutes."

(Effective October 28, 2022)

Sec. 22a-174-5. Methods for sampling, emission testing, sample analysis, and reporting

(a) All sampling, emission testing, and reporting shall be done in accordance with procedures prescribed by or acceptable to the Commissioner under subsection (d) of this section of the Regulations of Connecticut State Agencies or specified in another section of the Regulations of Connecticut State Agencies adopted under chapter 446c of the Connecticut General Statutes.

(b) **Sampling and emission testing methods**.

(1) Analysis for the sulfur content of liquid fuels shall be done according to the American Society for Testing and Materials method D 4294, D 7039 or the most current methods approved by the American Society for Testing and Materials for the analysis of sulfur content of liquid fuels.

(2) Analysis for sulfur content of solid fuel shall be done according to the most current approved methods of the American Society for Testing and Materials, as follows:

(A) Mechanical sampling by method D 2234 or the most current method approved by the American Society for Testing and Materials for mechanical sampling for sulfur content of solid fuels;

(B) Sample preparation by method D 2013 or the most current method approved by the American Society for Testing and Materials for sample preparation; and

(C) Sample analysis by method D 3176 or D 3180 or the most current method approved by the American Society for Testing and Materials for the analysis of solid fuel sulfur content.

(3) The emission testing method for sulfur dioxide emissions from stationary sources shall be that specified as Method 6 in 40 CFR 60.

(4) The emission testing method for sulfur oxides emissions from sulfuric acid plants, and from any other source as the commissioner shall determine by regulation, shall be that specified as Method 8 in 40 CFR 60.

(5) The emission testing method for particulate emissions from all stationary sources shall be that specified as Method 5 in 40 CFR 60.

(6) Emission tests for organic compound emissions including dioxin emissions shall be conducted in a manner approved by the commissioner.

(7) The emission testing method for nitrogen oxide emissions from stationary sources shall be that specified as Method 7E in 40 CFR 60.

(c) All emissions tests undertaken to comply with this section shall be made under the direction of persons qualified by training or experience in the field of sampling emissions from air pollution sources.

(d) Sampling and emission testing methods as specified in subsection (b) of this section may be modified or adjusted with the approval of the Commissioner as required by the specific sampling conditions or needs and in accordance with good engineering practice, judgment and experience. For the purposes of demonstrating compliance with any regulation adopted under the provisions of Section 22a-174 of the General Statutes, any test shall be performed with the prior approval of the Commissioner as to the test method, sampling protocol and sample analysis procedures. The Commissioner shall provide forms for obtaining prior approval of testing methods, sampling protocol and sample analysis procedures.

(e) (1) The owner or operator of a stationary source of air pollution with maximum uncontrolled emissions of any particular air pollutant greater than one hundred (100) tons per year shall be required to carry out emission tests as prescribed by the Commissioner. Such test or tests shall be conducted at such intervals as the Commissioner may specify for an individual source.

(e) (2) In addition to the emission tests required in subdivision 22a-174-5(e)(1), the commissioner may require the owner or operator of any stationary source to conduct emission tests of emissions. Tests required under the provisions of subdivision 22a-174-

5(e)(1) and this subdivision shall be conducted in a manner satisfactory to the commissioner. All such tests shall be conducted at the expense of the owner or operator of the pollution source being tested, and the commissioner or his representative shall be entitled to observe the tests, including initial sampling, subsequent laboratory analysis and other related procedures.

(f) **Fees for visual tests**.

(1) The owner or operator of a stationary source who is required to conduct an emission test under either subsection (e)(1) or (e)(2) of this section may be required to conduct a visual test through the use of a dust compound in lieu of the emission testing otherwise required. Such testing shall be conducted annually or at an interval determined by the commissioner and in a manner satisfactory to the commissioner.

(2) The owner or operator of a stationary source who, under the provisions of subdivision (1) of this subsection, is required to conduct a visual test shall pay a fee of five hundred and sixty-two dollars and fifty cents ($562.50).

(3) The commissioner may increase the fee specified in subdivision (2) of this subsection to a maximum fee of six hundred and forty-five dollars ($645.00) if the test conditions under subdivision (1) of this subsection are deemed hazardous as determined by valid Connecticut State Employee Collective Bargaining Agreements.

(4) The commissioner may reduce the fee specified in subdivision (2) of this subsection to no less than three hundred and ninety-seven dollars and fifty cents ($397.50) or the fee specified in subdivision (3) of this subsection to no less than four hundred and thirty-five dollars ($435.00) if the test condition under subdivision (1) of this subsection require that the Department use one staff person to monitor the visual test under this subsection.

(5) The owner or operator of a stationary source who is required to pay a fee under this subsection shall submit such fee to the commissioner accompanied by forms furnished by the commissioner.

(Effective April 25, 1988; Amended May 26, 2004; Amended April 4, 2006; Amended April 15, 2014)

Notes: Designators (e)(1), (e)(2) and (f) were inadvertently renumbered to (e), (f) and (g) when this section was published after the 4/15/2014 amendments and have been editorially restored. (April 30, 2021)

Sec. 22a-174-6. Air pollution emergency episode procedures

(a) When air pollutant concentrations monitored by the Department indicate that short term high pollutant levels may be expected which are likely to have an adverse impact on human health, the Commissioner shall prepare for the declaration of an appropriate air pollution emergency episode.

(b) **Industrial Emergency episode criteria.** In determining that any stage of an air pollution industrial emergency episode exists, the Commissioner shall be guided by the following criteria:

(b) (1) First Stage: Industrial Air Pollution Alert. An air pollution industrial alert shall be

declared whenever the concentration of one or more of the pollutants listed below reaches the described level at any monitoring site operated by the Department:

A SO_2 concentration of 800 *u*g/m^3 (0.3 ppm), 24-hour average;

A PM_{10} concentration of 350 *u*g/m^3, averaged over 24-hours, measured in accordance with the provisions of Appendix C of Title 40 Code of Federal Regulations part 58 revised as of July 1, 1989; or

A NO_2 concentration of 1130 *u*g/m^3 (0.6 ppm), 1-hour average; 282 *u*g/m^3 (0.15 ppm), 24-hour average; and meteorological conditions are such that the pollutant concentrations can be expected, unless control actions are taken, to remain at the above levels or increase over a period of twelve (12) or more hours.

(b) (2) Second Stage: Industrial Air Pollution Warning. An industrial air pollution warning shall be declared whenever one of the following levels is reached at any monitoring site operated by the Department:

A SO_2 concentration of 1,600 *u*g/m^3 (0.6 ppm), 24-hour average;

A PM_{10} concentration of 420 *u*g/m^3, averaged over 24-hours, measured in accordance with the provisions of Appendix C of Title 40 Code of Federal Regulations part 58 revised as of July 1, 1989; or

A NO_2 concentration of 2,260 *u*g/m^3 (1.2 ppm), 1-hour average; 565 *u*g/m^3(0.3 ppm), 24-hour average; and meteorological conditions are such that pollutant concentrations can be expected, unless control actions are taken, to remain at the above levels or increase over a period of twelve (12) or more hours.

(b) (3) Third Stage: An industrial air pollution emergency shall be declared when any one of the following levels is reached at any monitoring site operated by the Department:

A SO_2 concentration of 2,100 *u*g/m^3 (0.8 ppm), 24-hour average;

A PM_{10} concentration of 500 *u*g/m^3, averaged over 24-hours, measured in accordance with the provisions of Appendix C of Title 40 Code of Federal Regulations part 58 revised as of July 1, 1989; or

A NO_2 concentration of 3,100 *u*g/m^3 (1.6 ppm); 1-hour average; 750 *u*g/m^3 (0.4 ppm), 24-hour average; and meterological conditions are such that this condition can be expected to continue for twelve (12) or more hours.

(b) (4) Termination. Once any stage of an industrial air pollution emergency episode has been declared, it shall remain in effect until the Commissioner announces its termination.

(c) Plans of action at each stage of an industrial air pollution emergency episode.

(c) (1) First Stage: Industrial Air Pollution Alert. Whenever the Commissioner declares an industrial air pollution alert, persons responsible for the operation of a source of air pollution shall as rapidly as possible take all required steps for pollution reduction as described in table I. Persons responsible for the operation of a source of air pollution which emits, or has the capacity to emit, more than 100 tons of pollutants per year, as determined before the application of control equipment, shall put into effect the preplanned abatement strategy for an industrial air pollution alert.

Table I

Steps for Air Pollution Reduction at an Industrial Air Pollution Alert

1. There shall be no open burning, except as authorized by the Commissioner in writing to safeguard public health and safety.

2. The use of incinerators for the disposal for any form of solid waste shall be limited to the hours between 12 noon and 4 p.m.

3. Boiler lancing or soot blowing required for fuelburning equipment shall be performed only between the hours of 12 noon and 4 p.m.

4. Fuels having low ash and sulfur content shall be used.

5. Electric power generation shall, whenever possible, be diverted to facilities outside the alert area.

6. Steam load demands shall be reduced.

7. Manufacturing operations shall be curtailed, postponed, or deferred.

8. Trade waste disposal operations which emit solid particles, gas vapors or malodorous substances shall be deferred.

9. Heat load demands for processing shall be reduced.

(c) (2) Second Stage: Industrial Air Pollution Warning. Whenever the Commissioner declares an industrial air pollution warning persons responsible for the operation of a source of air pollution shall as rapidly as possible take all required steps for pollution reduction as described in table II. Persons responsible for the operation of a source of air pollution which emits, or has the capacity to emit, more than 100 tons of pollutants per year, as determined before the application of control equipment, shall put into effect the preplanned abatement strategy for an air pollution industrial warning.

Table II

Steps for Air Pollution Reduction at an Air Pollution Industrial Warning

1. There shall be no open burning except as authorized by the Commissioner in writing to safeguard public health and safety.

2. The use of incinerators for the disposal of any form of solid waste or liquid waste shall be prohibited.

3. Boiler lancing or soot blowing required for fuel-burning equipment shall be performed only between the hours of 12 noon and 4 p.m.

4. All unessential operation of motor vehicles shall be terminated.

5. Electric power generation shall, to the maximum extent possible, be diverted to facilities outside the warning area.

6. Steam load demands shall be reduced the maximum extent possible.

7. Manufacturing operations shall be ceased, curtailed, postponed, or deferred.

8. Trade waste disposal operations which emit solid particles, gas vapors, or malodorous substances shall be deferred.

9. Heat load demands for processing shall be reduced the maximum extent possible.

(c) (3) Third Stage Industrial Air Pollution Emergency. Whenever the Commissioner declares an industrial air pollution emergency, persons responsible for the operation of a source of air pollution shall immediately take all required steps for pollution reduction as

described in table III, persons responsible for the operation of a source of air pollution which emits, or has the capacity to emit, more than 100 tons of pollutants per year, as determined before the application of control equipment, shall put into effect the preplanned abatement strategy for an industrial air pollution emergency.

Table III

Steps for Air Pollution Reduction at an Industrial Air Pollution Emergency

1. There shall be no open burning, except as authorized by the Commissioner in writing to safeguard public health and safety.

2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited.

3. All enterprises and activities described below shall immediately cease operations:

A. Mining and quarrying.

B. All construction work except that essential to secure sites against endangering life and limb.

C. All manufacturing establishments except those involved in combatting the air pollution emergency in accordance with preplanned abatement strategies.

D. All wholesale trade establishments, i.e., places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies and food.

E. All state and local government offices except those necessary for public safety and welfare, including any involved in combatting the industrial air pollution emergency.

F. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.

G. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.

H. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studios; beauty shops, barber shops, shoe repair shops.

I. Advertising offices; consumer credit reporting, adjustment and collection agencies; duplicating, addressing, blueprinting; photocopying, mailing, mailing list and stenographic services, equipment rental services, commercial testing laboratories.

J. Automobile repair and servicing and all parking and garage operations.

K. All offices, clerical and professional service enterprises including law and accounting offices but excluding doctors' offices and medical laboratories.

L. All schools of any kind.

M. Establishments rendering amusement and recreational services including motion picture theaters.

4. All commercial, manufacturing or service establishments not shut down by this regulation shall institute such actions as will result in maximum reduction of air pollutants from their activities by ceasing, curtailing, or postponing operations which emit air

pollutants to the extent possible without causing injury to persons or damage to equipment.

5. The use of motor vehicles of any kind shall cease except in emergencies with the express approval of local or state police.

(d) (1) Preplanned abatement strategies. Any person responsible for the operation of a source of air pollutants that emits, or has the capacity to emit, 100 tons or more of pollutants a year as determined before the application of control equipment, shall prepare a standby plan for reducing the emission of air pollutants during each of the three stages of an industrial air pollution emergency episode, i.e., Industrial Alert; Industrial Warning; Industrial Emergency. Standby plans shall be designed to reduce or eliminate emission of air pollutants in accordance with the requirements set forth in Tables I–III.

(d) (2) Any person responsible for the operation of a source of air pollutants not set forth under subdivision (d) (1) shall, when requested by the Commissioner, prepare standby plans for reducing the emissions of air pollutants during each of the four stages of an industrial air pollution emergency episode. Such standby plans shall be designed to reduce or eliminate emissions of air pollutants in accordance with the requirements set forth in Tables I–III.

(d) (3) All standby plans shall be in writing, identify the source of air pollutants, contain a commitment as to the amount of reduction to be achieved, and set forth in sufficient detail for the Commissioner to evaluate the manner in which the reduction will be accomplished.

(d) (4) During any Industrial Air Pollution Emergency Episode, standby plans shall be made available on the premises to persons authorized to enforce these regulations.

(d) (5) The standby plans required by subdivision (d) (1) shall be submitted to the Commissioner by August 1, 1972. Standby plans requested by the Commissioner under subdivision (d) (2) shall be submitted within 90 days of the date of receipt of the request. When in the judgment of the Commissioner a standby plan is not adequate to carry out the objectives set forth in Tables I–III, he may reject the plan and require that it be resubmitted in an acceptable form within 30 days from the date of rejection.

(e) **Declaration of an industrial air pollution emergency episode in aid of sister state.** Notwithstanding that the concentration of pollutants in the air over the State of Connecticut does not meet the criteria set forth in subdivisions (b) (1) to (b) (3) for any stage of an industrial air pollution emergency episode, the Commissioner may nevertheless declare such emergency episode to be in effect at the stage level he deems appropriate when it becomes necessary to reduce the level of air pollutants in Connecticut to avoid intensifying deteriorated air conditions in one or more areas outside the state that are endangering the health and welfare of residents in those areas.

(f) **Emissions from a limited number of sources.** Whenever the Commissioner determines that a specified emergency criteria level set forth in subdivisions (b) (1) to (b) (3) has been reached in a limited area, he may restrict the response to such emergency in the manner he deems appropriate, including notification to those sources contributing to the emergency levels that the abatement actions of Tables I, II, or III, as the case may be, are required and shall be put into effect until the pollutant levels are reduced below the criteria levels.

(g) **Automotive emergency episode criteria.** In determining any stage of an automotive air pollution emergency episode to exist, the Commissioner shall be guided by the following criteria:

(g) (1) First Stage: Automotive Air Pollution Alert. An automotive air pollution alert shall be declared whenever the concentration of one or more of the pollutants listed below reaches the described level at any monitoring site operated by the Department of Environmental Protection: CO: 17 *u*g/m^3 (15 ppm), 8-hour average; Oxidant (O_3): 400 *u*g/m^3(0.2 ppm), 1-hour average; and meteorological conditions are such that the pollutant concentrations can be expected, unless control actions are taken, to recur the next calendar day.

(g) (2) Second Stage: Automotive Air Pollution Warning. An automotive air pollution warning shall be declared whenever evidence shows that air quality is continuing to degrade from the automotive air pollution advisory and alert one of the following levels is reached at any monitoring site operated by the Department of Environmental Protection: CO: 34 *u*g/m^3 (30 ppm), 8-hour average;

Oxidant (O_3) 800 *u*g/m^3 (0.4 ppm), 1-hour average; and meteorological conditions are such that pollutant concentrations can be expected, unless control actions are taken, to recur the next calendar day.

(g) (3) Third Stage: Automotive Air Pollution Emergency. An automotive air pollution emergency shall be declared whenever evidence shows that air quality has degraded to a level deemed unacceptable by the commissioner under any circumstances and requiring the most stringent control actions. An automotive air pollution emergency will automatically be declared when any one of the following levels is reached at any monitoring site operated by the Department of Environmental Protection: CO: 46 *u*g/m^3 (40 ppm), 8-hour average;

Oxidant (O_3): 1,000 *u*g/m^3 (0.5 ppm), 1-hour average; and meteorological conditions are such that this condition can be expected to recur the next calendar day.

(g) (4) Termination. Once any stage of an automotive air pollution emergency episode has been declared, it shall remain in effect until the Commissioner announces its termination.

(h) **Plans of action at each stage of emergency**.

(h) (1) First Stage: Automotive Air Pollution Alert. Whenever the Commissioner declares an automotive air pollution alert, all unessential operation of motor vehicles shall be terminated.

(h) (2) Second Stage: Automotive Air Pollution Warning. Whenever the Commissioner declares an automotive air pollution warning, persons operating motor vehicles must reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

(h) (3) Third Stage: Automotive Air Pollution Emergency. Whenever the Commissioner declares an automotive air pollution emergency, all private non-commercial motor vehicle operations shall cease except where absolutely essential for necessities of life including medical treatment, and commercial vehicle operations shall be reduced to the absolute minimum necessary to transport necessities and provide for public safety and welfare.

(Effective July 7, 1993)

Sec. 22a-174-7. Air pollution control equipment and monitoring equipment operation

(a) **Breakdown, failure and deliberate shutdown.**

(1) Neither breakdown, failure nor deliberate shutdown of air pollution control equipment or monitoring equipment nor submission of any notice pursuant to this section shall excuse the owner or operator of any source from the obligation to comply with an applicable emission limitation or emission standard or other applicable requirement.

(2) If an owner or operator operates a stationary source to produce emissions of an air pollutant during breakdown, failure or deliberate shutdown of any air pollution control equipment so as to produce an exceedance of an applicable emission limitation or emission standard, the owner or operator shall:

(A) Exercise due diligence to minimize emissions while such control equipment is inoperative;

(B) Continue the use of monitoring equipment; and

(C) Give notice to the Commissioner as required by subsections (d) and (e) of this section.

(b) **Operation of air pollution control equipment and monitoring equipment.**

(1) While a stationary source is in operation, no person shall deliberately shut down any operational air pollution control or monitoring equipment or deliberately keep such air pollution control equipment or monitoring equipment shut down except to perform necessary maintenance, which cannot be accomplished When the stationary source itself is not in operation and is not emitting air pollutants.

(2) Notwithstanding subdivision (1) of this subsection, a source owner or operator may deliberately shut down air pollution control equipment or monitoring equipment while the source is in operation if:

(A) The owner or operator is not required to operate such equipment by a permit, order or regulation;

(B) The source is in compliance with applicable emission limitations and emission standards while the air pollution control equipment is shut down; and

(C) Emissions released while monitoring equipment that measures such emissions is deliberately shut down are not used to calculate credits generated in an emissions credit trading program.

(c) No person may tamper with, render inaccurate or render inoperable any air pollution control equipment or monitoring equipment required by permit, order or regulation.

(d) If any breakdown, failure or deliberate shutdown of air pollution control equipment or monitoring equipment required by permit, order or regulation continues for more than twenty-four (24) hours and the source operates at any time after the expiration of twenty-four hours and during source operation after the breakdown, failure or deliberate shutdown an exceedance of an emission limitation or standard occurs, the owner or operator shall submit a written notice to the Commissioner postmarked within ten (10) days of the commencement of the breakdown, failure or deliberate shutdown. Such written notice shall

include, but is not limited to, the following:

(1) Identification of the specific air pollution control or monitoring equipment subject to the breakdown, failure or deliberate shutdown, as well as information concerning its location, and, where applicable, registration or permit number;

(2) The date, time, duration, explanation and description of each breakdown, failure or deliberate shutdown of the air pollution control or monitoring equipment;

(3) The nature and quantity of air pollutants emitted during the period that the pollution control or monitoring equipment is not operating;

(4) Identification of dates of inspection and maintenance of the subject equipment prior to the breakdown, failure or deliberate shutdown, including a description of inspection findings and any maintenance conducted;

(5) A description of all measures that the owner or operator has taken or will take to resume operation of the air pollution control or monitoring equipment; and

(6) A description of all measures taken and continuing to be taken to minimize the length of the shutdown period such as the use of off-shift labor and equipment.

(e) **Immediate Notification**.

(1) The owner or operator shall notify the department, bureau of air management, compliance and field operations division, as required by subdivision (2) of this subsection if, at the time of discovery of any breakdown, failure or deliberate shutdown of air pollution control or monitoring equipment required to be operated by permit, order or regulation:

(A) The owner or operator reasonably expects the breakdown, failure or deliberate shutdown to continue for more than 24 hours; and

(B) The owner or operator anticipates operating the source at any time after the expiration of twenty-four hours.

(2) Notification to comply with this subsection shall be made by telephone, electronic mail, facsimile or in person immediately after the breakdown, failure or deliberate shutdown is discovered or in the exercise of reasonable care should have been discovered, and in no case shall such notice be made later than two (2) business days after such breakdown, failure or deliberate shutdown.

(f) Except as provided in subsection (g) of this section, compliance with the notice requirements of subsections (d) and (e) of this section or the operation requirements of subsection (b) of this section shall not relieve the owner or operator from complying with all applicable emission limitations and emission standards. The Commissioner may take any enforcement action, including requiring the owner or operator to cease operation of the stationary source, or attach any condition to the operation of the stationary source during the period of any breakdown, failure or deliberate shutdown of air pollution control or monitoring equipment. Nothing in this section or any notice submitted pursuant to this section shall preclude the Commissioner from taking any action authorized by law to protect human health and the environment.

(g) An owner or operator of a stationary source is exempt from the notification requirements of subsections (d) and (e) of this section if:

(1) The owner or operator holds a valid Title V permit for the stationary source issued by the department; or

(2) The owner or operator deliberately shuts down air pollution control or monitoring equipment in accordance with subsection (b)(2) of this section.

(Effective April 25, 1988; Amended April 1, 2004)

Sec. 22a-174-8. Compliance plans and schedules

(a) All new sources must comply with all regulations as of startup of operations.

(b) (1) Existing sources must comply with sections 22a-174-18(b), 22a-174-18(d), and 22a-174-23(a) of the Regulations of Connecticut State Agencies by June 1, 1972.

(2) Existing sources must comply with sections 22a-174-18(a), 22a-174-18(c), 22a-174-18(e), 22a-174-18(f), 22a-174-19(b) through (f) inclusive, 22a-174-20(a) through (e) inclusive, subdivisions 22a-174-20(f)(1), 22a-174-20(f)(2), 22a-174-20(f)(5), 22a-174-20(f)(6), 22a-174-20(f)(7), 22a-174-20(f)(8), 22a-174-20(f)(9), 22a-174-20(f)(10), 22a-174-21(a) and (b) and 22a-174-22e as expeditiously as practicable.

(3) Sources subject to subdivision 22a-174-20 (f) (4) must submit to the Commissioner a proposed compliance plan and schedule by November 1, 1972, which plan must provide for compliance with appropriate regulations as expeditiously as practicable but not later than April 1, 1975. Sources that do not submit such a plan must be in compliance by June 1, 1973.

(4) Fuel merchants must comply with subdivision 22a-174-19 (a) (2) by September 1, 1972, and fuel users must comply with that section by April 1, 1973.

(5) Paint merchants must comply with subdivision 22a-174-20 (g) (1) by January 1, 1974, and paint users must comply with subdivisions 22a-174-20 (g) (2) and (g) (3) by January 1, 1975.

(6) The owner or operator of a source subject to the requirements of subsections 22a-174-20 (*l*) through (r) must comply by October 1, 1980.

(7) The owner or operator of a source subject to the requirements of subsections 22a-174-20 (s) through (w) must comply by October 1, 1981.

(c) (1) Any existing "source" required to comply with subdivision (b) (2) which is unable to comply by the date specified therein must submit to the "Commissioner" a proposed compliance plan and schedule by October 1, 1972, which plan must provide for compliance with appropriate regulations as expeditiously as practicable but not later than April 1, 1974.

(2) The owner or "operator" of any "source" which cannot comply with the requirements of subdivision (b) (6) shall submit a compliance plan by July 1, 1980 which provides for compliance as expeditiously as practicable but not later than July 1, 1982.

(3) The owner or "operator" of any "source" which cannot comply with the requirements of subdivision (b) (7) shall submit a compliance plan by July 1, 1981 which provides for compliance as expeditiously as practicable but not later than July 1, 1982.

(4) Notwithstanding the provisions of subdivision (b) (7) the owner or "operator" of a "source" subject to the requirements of subsection 22a-174-20 (v) which has "potential

emissions" of one hundred tons or less per year shall submit a compliance plan by July 1, 1984 which provides for compliance by July 1, 1985.

(5) Notwithstanding the provisions of subdivisions (c) (2) and (c) (3) the "Commissioner" may accept a compliance plan with a final date of compliance not later than July 1, 1985 if the "Commissioner" determines by permit or order that the plan calls for new or innovative technology such as the use of low solvent coatings.

(d) Compliance plans and schedules pursuant to subdivision (b) (3) and (c) must:

(1) be submitted on forms furnished or prescribed by the Commissioner;

(2) set forth a proposed date for compliance with each applicable regulation; and

(3) specify in detail the manner in which compliance will be achieved. Said schedule shall also include dates for achievement of increments of progress toward compliance and provide for the source to verify completion of each increment to the Commissioner as it is achieved.

(e) The Commissioner may approve, approve with conditions or disapprove a proposed compliance plan and schedule. The Commissioner shall approve such plan and schedule if he determines that:

(1) The source cannot comply with the regulation at any earlier time, even using the best available control technology, or cannot install such technology any earlier;

(2) Adherence to such plan and schedule will not jeopardize the attainment or maintenance of a national standard by the required time;

(3) The plan and schedule provide for the earliest possible compliance by the source; and

(4) The plan and schedule provide for interim control measures to be taken before the compliance date.

(f) If the Commissioner rejects a proposed plan and schedule or portion thereof, then the source or sources involved must be in compliance with applicable regulations not later than October 1, 1980.

(g) All decisions of the Commissioner regarding a proposed plan and schedule shall be in writing and shall briefly state the basis for the decision.

(h) The commissioner shall issue periodic reports at intervals of not less than once a month, available on request to any interested party, which shall contain information regarding:

(1) proposed compliance schedules received; and

(2) determinations of the Commissioner regarding such schedules.

(i) Following submission to the Commissioner of a proposed compliance plan and schedule, any person may file written objections to the plan, in whole or in part, specifying the basis for those objections. The Commissioner may, at his discretion and after appropriate notice, hold public hearings upon proposed compliance plans and schedules.

(j) The commissioner shall, if petitioned by a minimum of twenty-five (25) persons or by an association having not less than twenty-five members, hold an investigative hearing once each calendar year beginning January 1, 1980 for the purpose of determining the feasibility of expanding the applicability of the provisions of subsection 22a-174-20 (cc)

concerning alternative emission reduction plans for volatile organic compounds to other sections of these regulations to permit owners and operators of stationary sources to submit alternative emission reduction plans for other pollutants consistent with the requirements of the administrator. The hearing shall be conducted in accordance with section 22a-4-8 of the regulations of Connecticut state agencies.

(Effective February 1, 1989; Amended September 10, 2012; Amended December 22, 2016)

Sec. 22a-174-9. Prohibition of air pollution

(a) No person shall permit or cause air pollution, as defined in section 22a-174-1. This section applies to air pollutants not otherwise covered by these regulations.

(b) The owner or operator of any stationary source shall operate such source in accordance with all applicable emissions standards, standards of performance, and any other applicable requirements under Title 40 Code of Federal Regulations, Part 60, Standards of Performance for New Stationary Sources, or Part 61, National Emission Standards for Hazardous Air Pollutants, as from time to time may be amended, which the Administrator has delegated to the Commissioner and which delegation the Commissioner has accepted.

(Effective November 29, 1983)

Sec. 22a-174-10. Public availability of information

(a) Any records, reports or other information obtained by the Commissioner or on file with the department shall, pursuant to the provisions of sections 1-7 through 20 of the General Statutes, as amended, be made available to the public. Upon a showing satisfactory to the Commissioner by any person that such records, reports or other information, or particular parts thereof (other than emission data), if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Commissioner shall consider such record, report or information, or particular part thereof, confidential, except that such record, report or information may be disclosed to other officers, employees, or authorized representatives of the state concerned with carrying out these regulations or when relevant in any hearing conducted by the Department of Environmental Protection or in any judicial proceeding, subject to such safeguards as the hearing officer or presiding judge may impose.

(b) Emission data shall not be entitled to protection as a trade secret.

(c) Any emission data made public by the Commissioner shall be presented in such a manner as to show the relationship between measured amounts under applicable emission limitations and compliance schedules or other measures.

(d) The Commissioner, when he deems it appropriate, may require a nominal charge to defray the costs of reproducing any requested information.

(Effective August 1, 1983)

Sec. 22a-174-11. Prohibition against concealment or circumvention

(a) No person shall install or cause the installation or use of any device or any means

which, without resulting in reduction in the total amount of air pollutant emitted, conceals or dilutes an emission of air pollutant which would otherwise violate applicable regulations.

(b) Abatement of objectionable odors as defined in section 22a-174-23 by means of dilution or masking shall not be deemed a violation of this section, provided that any masking odor used shall not itself violate section 22a-174-23 or create a nuisance.

(Effective August 1, 1983)

Sec. 22a-174-12. Violations and enforcement

(a) No person shall violate or cause the violation of any applicable regulation.

(b)**Remedies for violations.**

(1) The Commissioner shall designate employees of DEP to be known as enforcement personnel, who shall, acting with or without complaints, conduct investigations and ascertain whether the Commissioner's regulations are being complied with.

(2) Whenever the enforcement personnel determine that any regulation promulgated by the Commissioner has been violated or there has been a failure to comply therewith, they shall make and serve upon the person or persons responsible for the violations or failure a written order specifying the nature of the violation or failure and affording a reasonable period of time for its correction or remedying.

(3) Prior to the issuance of such order, the enforcement personnel shall make reasonable effort in the light of all circumstances to correct the violation or failure of compliance by conference, conciliation and persuasion, as required by statute.

(4) Unless the person or persons against whom an order has been served files a written answer thereto with the Commissioner, within thirty (30) days after the date of service of the order, and requests a hearing thereon, such order shall become final and effective. The answer shall contain a clear and concise statement of the reason or reasons, if any, that the order is claimed to be invalid or insufficient and/or the manner in which the persons filing the answer deem themselves aggrieved by the order. Upon receipt of the answer and request for a hearing, the Commissioner shall schedule the hearing as soon thereafter as is practical before himself or a designated hearing officer to act in his place and stead. The person designated to act as hearing officer shall not have participated in any way in the investigation or other preliminary proceedings preceding the issuance of the order specifying the violation. The hearing shall be open to the public and shall be conducted in the manner provided by statute, to wit: Testimony shall be under oath and recorded stenographically or by a sound-recording device, but strict rules of evidence of courts of law shall not be binding on the hearing officer. True copies of the transcript and of any other record made by or at such hearing shall be furnished a party or any other person requesting them at his own expense. During the course of a hearing, the hearing officer may take appropriate measures to preserve the confidentiality of trade secrets.

(5) Any person who receives a notice that a permit has been denied, revoked or modified, or only conditionally approved may deem the notice a written order of violation under subsection (b) (2) and file a written answer and request for a hearing under subsection (b)

(4).

(6) At the conclusion of a hearing held under subsection (b) (4) or (b) (5) and after reviewing the hearing record and the recommendation and report of the hearing officer, if any, the Commissioner shall determine whether the person or persons against whom such order has been issued is violating any regulation of the Commissioner, or has failed to comply with a proper requirement, order, notice, ruling or directive duly issued, or has improperly had a permit denied, revoked, or modified, or conditionally approved, and he shall affirm, modify, reverse or revoke the order, notice or other action complained of as he shall in his discretion determine, and shall so notify such person or persons by certified mail. Any information as to secret processes or methods shall be kept confidential.

(c) Any person who violates an order of the Commissioner shall be liable for a civil penalty not to exceed five thousand dollars ($5,000) per week commencing the 10th day after expiration of the time fixed for the taking of preventative or corrective measures, although the Commissioner in his discretion may waive such accrual in whole or in part. The penalty may be collected in a civil action in the manner provided by statute. In addition, the Commissioner may institute a civil action in any court of competent jurisdiction for injunctive relief to prevent any further violations of an order.

(d) (1)**Emergencies.** Notwithstanding any other provision of these regulations, if the Commissioner determines that an air pollution emergency exists caused by adverse meteorological conditions, such as an inversion or a stagnant high pressure system, which requires immediate action to protect public health or safety, he may order any person emitting or responsible for the emission of air pollutants or contaminants creating or contributing to the emergency, to reduce or discontinue such actions immediately. Upon the issuance of such order, the Commissioner shall fix a place and time, not later than forty-eight hours thereafter, for a hearing to be held before him or a hearing officer designated by him. Not more than twenty-four hours after the conclusion of such hearing, and without adjournment thereof, the Commissioner shall affirm, modify or set aside his order. Nothing contained in this regulation shall be deemed a waiver of the Commissioner's powers to seek immediate injunctive relief in the courts against a person responsible for emission of pollutants in an emergency.

(d) (2) Any person who violates an order issued during and/or related to an air pollution emergency shall be liable for a civil penalty of five thousand dollars ($5,000) per week commencing with the date of notice to such person of issuance of the order.

(e)**Criminal liability.** Any person who files any statement, record or report with the Commissioner containing false or misleading information or other claims shall be subject to criminal prosecution for a Class A misdemeanor punishable by imprisonment for a period of up to one year and a fine of up to one thousand dollars ($1,000) for each violation.

(f)**Progress report requirements.**

(f) (1) Requirement, time, form. Any person against whom a final order has been issued shall submit progress reports as required and prescribed by the terms of the order. Such progress reports shall be submitted in such a form as the Commissioner prescribes.

(f) (2) Contents. Progress reports shall contain a separate declaration for each required step of an order's compliance timetable, stating either that compliance with the step is on schedule, or that compliance with the step is off-schedule. Progress reports declaring that compliance is proceeding on-schedule shall contain a concise but comprehensive description of (1) the action completed on each and every step required by the order during the time period covered by the report, and (2) the date or dates on which compliance with such step or steps was completed. Progress reports declaring that compliance is proceeding off-schedule shall contain a concise but comprehensive description of (1) the specific reasons for the tardiness, (2) the current state of completion, and (3) the special action which will be taken to return "on-schedule" by the date of the next progress report. Progress reports shall contain such other information as the Commissioner may require by the terms of a final order.

(f) (3) Proof of compliance. Progress reports shall include the name and address of any vendor whose goods were ordered for compliance purposes since the prior progress report. Where the terms of an order reported upon require the purchase of any material, service or equipment, progress reports shall include copies of the purchase order or orders. The Commissioner may require such other proof as he deems necessary to determine the progress and degree of compliance.

(f) (4) Verification of contracted work. Progress reports shall include the name and address of any consultants, subcontractors, or other agents employed under the terms of the order since the prior progress report together with a concise but comprehensive description of the actions they are to take to assist in compliance with the orders. Whenever any vendor, consultant, subcontractor or other agent is undertaking any activity regarding any step in the order, the progress report shall include a verification by the person under order that the vendor, consultant, subcontractor, or other agent is proceeding on-schedule.

(f) (5) Liability. Any person required to submit progress reports shall be liable for failure to meet any of the requirements of this section notwithstanding any delegation of responsibility to an agent to complete and submit reports. Any person who files a progress report containing false or misleading information or other claims shall be subject to criminal prosecution pursuant to section 53a-157 of the General Statutes.

(Effective August 1, 1983)

Sec. 22a-174-13. Variances

(a) Any person who owns or operates any source of air pollutants as defined in section 22a-174-1 may apply to the Commissioner for a variance or a partial variance from one or more of the provisions of these regulations. Applications for a variance shall be submitted on forms furnished or prescribed by the Commissioner and shall supply such information as he requires, including but not limited to,

(1) information on the nature and location of the facility or process for which such application is made;

(2) the reasons for which the variance is required, including the economic and

technological justifications;

(3) the type and quantity of emissions that will occur during the period of variance;

(4) a description of interim control measures to be taken by the source to minimize emissions and the damages occurring therefrom;

(5) history of any previous environmental litigation between the source and government agencies;

(6) a specific schedule of measures to be taken to bring the source into eventual compliance with those regulations from which the variance is sought;

(7) any other relevant information the Commissioner may require in order to make a determination regarding the application.

(b) Failure to supply all necessary information to enable the Commissioner to make a determination regarding the application shall be cause for rejection of the application.

(c) No variance shall be approved unless the applicant shall establish to the Commissioner's satisfaction that:

(1) discharges occurring during the period of variance will not constitute a danger to public health or safety;

(2) compliance with the regulations would produce practical difficulty or hardship without equal or greater benefits to the public.

(d) In making a determination on granting a variance, the Commissioner shall consider:

(1) the character and degree of injury to, or interference with, safety, health, or the reasonable use of property which is caused or threatened to be caused;

(2) the social and economic value of the activity for which the variance is sought;

(3) the suitability or unsuitability of the activity to the area in which it is located;

(4) the impracticability, both scientific and economic, of complying with the regulation from which the variance is sought.

(e) The Commissioner shall not grant any variance that will prevent or interfere with the attainment or maintenance of any relevant ambient air quality standard.

(f) Applications for variances may be rejected as untimely if received by the Department of Environmental Protection less than 90 days prior to the date for compliance with the regulation for which the variance is sought, or if notice of violation of the regulation has been served in accordance with section 22a-174-12 (b) (2).

(g) Following receipt and review of an application for a variance, the Commissioner shall fix a date, time, and location for a public hearing on such application.

(h) The Commissioner shall cause the applicant to publish at his own expense all notices of hearings and other notices required by law.

(i) Within sixty (60) days of the receipt of the record of the hearing on a variance application, the Commissioner shall issue his determination regarding such application. All such decisions of the Commissioner shall be in writing and shall briefly set forth the reasons for the decision.

(j) The Commissioner may, at his discretion, limit the duration of any variance granted under these regulations, except that no such variance may extend beyond three years.

(1) Any party holding a variance for three years and needing an extension of time may apply for a new variance under the provisions of these regulations.

(2) Any such application shall include a demonstration of compliance with any conditions imposed under the previous variance.

(k) The Commissioner may attach to any variance any reasonable conditions he deems necessary or desirable, including but not limited to:

(1) requirements for special control measures to be taken by the source to minimize emissions during the period of variance;

(2) requirements for periodic reports submitted by the applicant relating to emissions, to compliance with any other conditions under which the variance is granted, or to any other relevant information the Commissioner deems necessary.

(*l*) (1) A variance may be revoked or modified for failure to comply with such conditions as the Commissioner may have attached to the original grant of a variance.

(*l*) (2) Notice of revocation or modification shall set forth the reasons for the action taken and shall be effective thirty (30) days after the date of service of the notice, unless a hearing is requested prior to the expiration of the thirty (30) day period.

(*l*) (3) Any person considering himself aggrieved by such notice may consider the notice a written order of violation under section 22a-174-12 (b) (2) and may obtain a hearing thereon by filing a written answer and request for a hearing in accordance with section 22a-174-12 (b) (4). Filing of the answer and request for the hearing shall postpone the effective date of the notice until conclusion of hearing and issuance of the decision of the Commissioner.

(Effective August 1, 1983)

Sec. 22a-174-14. Compliance with regulation no defense to nuisance claim

(a) Nothing in any portion of these regulations shall in any manner be construed as authorizing or legalizing the creation or maintenance of a nuisance, and compliance of a source with these regulations is not a bar to a claim of nuisance by any person.

(Effective August 1, 1983)

Sec. 22a-174-15. Severability

(a) If any provision of these regulations or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other part of these regulations which can be given effect without the invalid provisions or application, and to this end the provisions of these regulations and the various applications thereof are declared to be severable.

(Effective August 1, 1983)

Sec. 22a-174-16. Responsibility to comply with applicable regulations

(a) Exemption from requirements for registration or permits or possession of a permit to construct or operate or of a variance or approval of a compliance schedule shall not relieve

any person of the responsibility to comply with any other applicable regulations or other provisions of federal or state law.

(Effective August 1, 1983)

Sec. 22a-174-17. Control of open burning (Repealed)

Repealed September 10, 2012.

(Effective August 1, 1983; Repealed September 10, 2012)

Sec. 22a-174-18. Control of particulate matter and visible emissions

(a) **Definitions.** For the purposes of this section, the following definitions shall apply:

(1) "Calendar quarter" means a consecutive three (3) month period (non-overlapping) beginning on January 1, April 1, July 1 or October 1;

(2) "Flue-fed incinerator" means an incinerator with a single flue that serves as both the charging chute and the flue to transport combustion products to the atmosphere;

(3) "Incinerator" means, notwithstanding Section 22a-174-1 of the Regulations of Connecticut State Agencies, any device, apparatus, equipment or structure used for destroying, reducing or salvaging by fire any material or substance, including but not limited to, refuse, rubbish, garbage, trade waste, debris or scrap, or facilities for cremating human or animal remains;

(4) "One-minute block average" means, for measurements taken at a source using opacity CEM equipment, the average of six (6) or more data points equally spaced over one minute; and, for measurements taken using 40 CFR 60, appendix A, reference method 9, the average of four or more data points equally spaced over a one minute period;

(5) "Shutdown" means the period of time beginning when the owner or operator of a stationary source initiates the process of ceasing the operation of such source and ending when operation thereof has completely ceased;

(6) "Six-minute block average" means, for measurements taken at a source using opacity CEM equipment, the average of thirty-six (36) or more data points equally spaced over a six (6) minute period; and, for measurements taken using 40 CFR 60, appendix A, reference method 9, the average of twenty-four or more data points equally spaced over a six (6) minute period;

(7) "Stationary reciprocating internal combustion engine" means any spark ignited or compression ignited engine that is also a stationary source as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies; and

(8) "Startup" means the time beginning when the owner or operator of a stationary source initiates the process of setting such source into operation.

(b) **Visible emission standards.**

(1) Stationary sources without opacity CEM equipment. Except as provided in subsection (j) of this section, an owner or operator of any stationary source without opacity CEM equipment for which opacity is measured using visual observation shall not exceed the following visible emissions limits:

(A) twenty percent (20%) opacity during any six-minute block average as measured by 40 CFR 60, appendix a, reference method 9; or

(B) forty percent (40%) opacity as measured by 40 CFR 60, appendix a, reference method 9, reduced to a one-minute block average.

(2) Stationary sources with opacity CEM equipment. Except as provided in subsection (j) of this section, an owner or operator of a stationary source for which opacity is measured using opacity cem equipment shall not exceed the following visible emissions limits:

(A) twenty percent (20%) opacity during any six-minute block average; or

(B) forty percent (40%) opacity during any one-minute block average.

(3) Mobile sources. Except as provided in subsection (j) of this section, no person shall cause or allow:

(A) any visible emissions from a gasoline powered mobile source for longer than five (5) consecutive seconds;

(B) visible emissions from a diesel powered mobile source of a shade or density equal to or darker than twenty percent (20%) opacity for more than ten (10) consecutive seconds, during which time the maximum shade or density shall be no darker than forty percent (40%) opacity; or

(C) a mobile source to operate for more than three (3) consecutive minutes when such mobile source is not in motion, except as follows:

(i) when a mobile source is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control,

(ii) when it is necessary to operate defrosting, heating or cooling equipment to ensure the safety or health of the driver or passengers,

(iii) when it is necessary to operate auxiliary equipment that is located in or on the mobile source to accomplish the intended use of the mobile source,

(iv) to bring the mobile source to the manufacturer's recommended operating temperature,

(v) when the outdoor temperature is below twenty degrees Fahrenheit (20 degrees F),

(vi) when the mobile source is undergoing maintenance that requires such mobile source be operated for more than three (3) consecutive minutes, or

(vii) when a mobile source is in queue to be inspected by U.S. military personnel prior to gaining access to a U.S. military installation.

(c) **Control of airborne particulate matter and fugitive particulate matter.**

(1) No person shall cause or allow any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, prepared for the application of a coating or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall be in accordance with good industrial practice as determined by the commissioner and shall include, but not be limited to:

(A) the use of water or other appropriate material to prevent airborne particulate matter generated by the demolition of buildings or other structures; construction operations; the

clearing or grading of land; or the grading, construction or improvement of roads;

(B) the application of asphalt, water, suitable materials or covers to material stockpiles and other surfaces that can give rise to airborne particulate matter;

(C) the use of hoods, fans, fabric filters or other devices to enclose and vent the handling of materials that can give rise to airborne particulate matter;

(D) the covering, while in motion, of open-bodied trucks, open-bodied trailers and railroad cars transporting materials capable of giving rise to airborne particulate matter;

(E) the prompt removal of earth or other material deposited onto paved streets by trucking, earth moving equipment, erosion or other means; and

(F) the use of containment methods for sandblasting or similar operations.

(2) No person shall cause or allow the emission of visible particulate matter beyond the legal boundary of the property on which such emission occurs that either:

(A) remains near ground level beyond such property boundary; or

(B) diminishes the health, safety or enjoyment of people using a building or structure located beyond the property boundary.

(3) No person shall emit particulate matter into the ambient air in such a manner as to cause a nuisance.

(4) Subdivision (1) of this subsection shall not apply to a process industry, as defined in subsection (f) of this section, that is subject to subdivision (2) of subsection (f) of this section.

(d) **Emission standards for incinerators and prohibitions on flue-fed incinerators.**

(1) No owner or operator shall cause or allow the construction, installation or operation of a flue-fed incinerator.

(2) Particulate matter emission standards for incinerators. No owner or operator shall cause or allow the operation of any incinerator that will result in particulate matter emissions in excess of the particulate matter emission standards set forth in subparagraph (A) or (B) of this subdivision:

(A) for incinerators for which construction or modification commenced on or after July 1, 1979, 0.08 grains per standard cubic foot corrected to twelve percent (12%) carbon dioxide (CO_2) over a two (2) hour average or 0.18 grams per cubic meter corrected to twelve percent (12%) carbon dioxide (CO_2) over a two (2) hour period; and

(B) for incinerators for which construction or modification commenced prior to July 1, 1979, 0.4 pounds of particulate per thousand pounds of flue gases adjusted to fifty percent (50%) excess air.

(3) Visible and fugitive emission standards for incinerators. No owner or operator of any incinerator shall cause or allow unburned waste or ash particulate emissions that are individually discernible by the human eye measured using 40 CFR 60, appendix A, reference method 9 and 40 CFR 60, appendix A, reference method 22.

(e) **Particulate matter emission standards for fuel-burning equipment.**

(1) The owner or operator of fuel-burning equipment subject to Section 22a-174-3a or former Section 22a-174-3 of the Regulations of Connecticut State Agencies shall emit no

more than 0.10 pounds of particulate matter per million BTU of heat input or the particulate matter standard of a permit applicable to such equipment, whichever is more stringent.

(2) The owner or operator of fuel-burning equipment subject to former section 22a-174-2 of the Regulations of Connecticut State Agencies shall emit no more than the following particulate matter levels:

(a) 0.14 pounds of particulate matter per million BTU of heat input if the fuel burned is residual oil (No. 4 or No. 6 oil);

(B) 0.12 pounds of particulate matter per million BTU of heat input if the fuel burned is distillate oil (No. 2 oil);

(C) 0.10 pounds of particulate matter per million BTU of heat input if the fuel burned is natural gas; or

(D) 0.20 pounds of particulate matter per million BTU of heat input for any other fuel burned.

(3) Notwithstanding subdivisions (1) and (2) of this subsection and except as provided in subsection (j) of this section, the owner or operator of a stationary reciprocating internal combustion engine with a maximum continuous brake horsepower output rating, as specified by the manufacturer, greater than or equal to 175 brake horsepower (bhp), shall emit no more than:

(A) 0.10 pounds of particulate matter per million BTU of heat input or combust only fuel with a sulfur content less than or equal to 0.05% by weight, if the stationary reciprocating internal combustion engine was manufactured prior to or in model year 1996; or

(B) 0.10 pounds of particulate matter per million BTU of heat input if the stationary reciprocating internal combustion engine was manufactured after model year 1996.

(f) **Process industries—general.**

(1) For the purposes of this subsection, the following definitions apply:

(A) "Process weight" means the total weight of all materials introduced into any specific process that may cause the emission of particulate matter excluding solid, liquid or gaseous fuel, and uncombined water and air;

(B) "Process weight rate" means the process weight for any specific process measured over a one (1) hour time period;

(C) "Process industry" means a business that is primarily concerned with processing of bulk material into other products; and

(D) "Bulk material" means dry material such as, but not limited to, ore, coal, cereal, wood, sand, gravel or stone in loose, bulk form.

(2) Except as provided in subsection (g) of this section, no owner or operator of a process industry source shall cause or allow the emission of particulate matter to the ambient air in any one hour from such source in excess of the emission rate calculated as required by subdivisions (3) and (4) of this subsection.

(3) To calculate the maximum allowable emission rate for a process weight rate up to and including sixty thousand pounds per hour (60,000 lbs/hr), the following equation shall

be used:

$$E = 3.59 \times P^{0.62}$$

WHERE: P = Process weight rate in tons per hour
E = Maximum allowable emission rate in pounds per hour

(4) To calculate the maximum allowable emission rate for a process weight rate in excess of sixty thousand pounds per hour (60,000 lbs/hr), the following equation shall be used:

$$E = 17.31 \times P^{0.16}$$

WHERE: P = Process weight rate in tons per hour
E = Maximum allowable emission rate in pounds per hour

(5) To determine compliance with the requirements of this subsection, an interpretation resulting in the lowest allowable emission rate shall apply if the nature of any process or operation, or the design of any process unit, allows multiple interpretations.

(6) To determine the maximum allowable emission rate in accordance with this subsection for emissions that pass through a stack or stacks at a premises containing several similar process units, the total process weight shall include all such similar process units.

(7) To determine the maximum allowable emission in accordance with this subsection for a premises utilizing a series of operations that employ combinations of machines or other devices to process material, either continuously or in batches, the total process weight for such premises shall be the weight of all materials that may cause particulate matter emissions and are introduced into the series of operations, excluding all material that is the desired end product of any such series of operations.

(8) Process weight shall be calculated as follows:

(A) For a cyclical or batch operation, by dividing the process weight by the number of hours in one complete operation of the process, excluding any time during which the equipment is idle; and

(B) For a continuous operation, by dividing the process weight for a time period of operation by the length of that time period.

(g) **Process industries—specific.**

(1) Iron foundry cupola. For the purposes of this subdivision, “iron foundry cupola” means a furnace used in the iron foundry industry that uses coke, a derivative of coal, as fuel. No owner or operator shall cause or allow the operation of any iron foundry cupola unless:

(A) particulate matter control measures and/or control equipment remove at least ninety percent (90%) by weight of all particulate matter in the cupola discharge gases, or particulate

matter emissions are less than or equal to 1.7 pounds of particulate matter per ton of iron produced, whichever practice or combination of practices results in the lowest particulate matter emissions; and

(B) gases, vapors and gas-entrained effluents from such cupolas are incinerated at a minimum temperature of one thousand three hundred (1300) degrees Fahrenheit for a period of not less than three-tenths (0.3) of a second.

(2) Hot mix asphalt plant. No owner or operator shall cause or allow the operation of any hot mix asphalt plant unless:

(A) particulate matter emissions are less than 0.10 pounds of particulate matter per ton of asphalt produced; and

(B) the operation conforms to the requirements set forth in subsection (c) of this section.

(3) Foundry sand process. No owner or operator shall cause or allow the operation of a foundry sand process unless:

(A) particulate matter control measures and/or control equipment remove at least ninety percent (90%) of all airborne particulate matter from such process, or particulate matter emissions are less than 0.75 pounds of particulate matter per ton of material cast, whichever practice or combination of practices results in the lowest particulate matter emissions; and

(B) the operation conforms to the requirements set forth in subsection (c) of this section.

(4) Concrete batching process. No owner or operator shall cause or allow the operation of a concrete batching process unless:

(A) particulate matter control measures and/or control equipment remove at least ninety percent (90%) of all airborne particulate matter or 0.02 pounds of particulate matter per cubic yard of concrete, whichever practice or combination of practices results in the lowest particulate matter emissions; and

(B) the operation conforms to the requirements set forth in subsection (c) of this section.

(h) **Control technology determinations**.

To implement a control technology determination made by the commissioner, the commissioner may modify or revise a permit or issue an order to the owner or operator of a stationary source for which construction or major modification commenced after June 1, 1972 that requires more stringent emissions limitations than those set forth in subsections (b)(1) and (b)(2) of this section if such control technology determination does not result in a violation of the applicable provisions of 40 CFR 52, 60, 61, 62 or 63.

(i) **Hazardous air pollutants**.

Nothing in this section shall be construed to relieve an owner or operator from complying with all emissions limitations for hazardous air pollutants, hazardous materials or other hazardous substances.

(j) **Excepted activities**.

(1) The owner or operator of a stationary source shall not be subject to the visible emissions standards of subsection (b)(2) of this section for measurements of opacity using opacity CEM equipment during a period of startup or shutdown; commissioner-approved stack testing; or intentional sootblowing, fuel switching or sudden load changing done in

accordance with good engineering practices provided that:

(A) the owner or operator is required by permit, order or regulation to install, operate and maintain opacity CEM equipment at such stationary source, and the owner or operator is in compliance with such permit, order or regulation with regard to such opacity CEM equipment. If a stationary source is not subject to a permit, order or regulation requiring operation and maintenance of opacity CEM equipment, an owner or operator may certify on a form acceptable to the Commissioner that:

(i) the owner or operator of such stationary source has installed opacity CEM equipment that meets the applicable criteria of 40 CFR 60, Appendices B and F, and

(ii) the owner or operator operates and maintains such installed opacity cem equipment in compliance with the requirements of 40 CFR 60, Appendices B and F;

(B) the period of exception from the visible emissions standards of subsection (b)(2) of this section does not exceed one-half of one percent (0.5%) of the total operating hours of such stationary source during any calendar quarter; and

(C) the owner or operator of the stationary source does not cause or allow visible emissions in excess of sixty percent (60%) opacity during any six-minute block average of the period of exception from the visible emissions standards of subsection (b)(2) of this section.

(2) Reserved.

(3) Except for the use of open-bodied trucks and trailers subject to the requirements of subsection (c)(1)(d) of this section, a person engaged in agricultural operations shall be exempt from the requirements of subsection (c)(1) of this section provided such operations follow generally accepted agricultural practices and are in compliance with section 19a-341 of the Connecticut General Statutes.

(4) The owner or operator of any of the following sources shall be exempt from the requirements of subsection (b)(3) of this section:

(A) an antique mobile source over thirty years old;

(B) a mobile source used exclusively for racing;

(C) a mobile source while it is undergoing a mechanical repair or testing that affects the emission of visible air pollutants from such source;

(D) an aircraft;

(E) a locomotive operating on rails;

(F) a vessel operating on water; and

(G) commonly used residential lawn, garden and snow removal equipment.

(5) The operation of equipment to generate smoke or fog by any branch of the United States military or any other federal or state agency shall be exempt from the requirements of subsections (b) and (e) of this section provided such operation is limited to training exercises or the preparation thereof.

(6) The owner or operator of any stationary reciprocating internal combustion engine that is an emergency engine, as defined in section 22a-174-22e of the Regulations of Connecticut State Agencies and has a maximum continuous brake horsepower output rating,

as specified by the manufacturer, greater than or equal to 175 bhp shall not be subject to the particulate matter emissions standards of subsection (e) of this section.

(7) The owner or operator of a stationary reciprocating internal combustion engine with a maximum continuous brake horsepower output rating, as specified by the manufacturer, of less than 175 bhp shall not be subject to the requirements of subsection (e) of this section.

(8) The requirements of subsections (e), (f) and (g) of this section shall not apply to the owner or operator of a source subject to more stringent bact requirements, provided that the source is operated in compliance with a BACT determination.

(9) A person conducting open burning pursuant to section 22a-174(f) of the Connecticut General Statutes or regulations adopted thereunder shall not be subject to the requirements of this section.

(10) If the owner or operator of a source possesses documentation demonstrating that the presence of uncombined water, such as water vapor, is the only reason for the failure of an emission to comply with the requirements of this section, then the provisions of this section shall not apply to that emission.

(11) The owner or operator of a municipal waste combustor as defined in Section 22a-174-38 of the Regulations of Connecticut State Agencies shall be exempt from the requirements of this section.

(Effective August 1, 1983; Amended April 1, 2004; Amended December 22, 2016; Amended August 3, 2018)

Sec. 22a-174-19. Control of sulfur compound emissions

(a) **Reserved.**

(b) **Sulfuric acid plants.**

No person shall cause or permit sulfur compound, expressed as sulfur dioxide, emissions which exceed 6.5 pounds per ton (3.25 kg/ metric ton) of one hundred percent (100%) acid produced.

(c) **Sulfur recovery plants.**

No person shall cause or permit the emission of sulfur compounds, expressed as sulfur dioxide, from a sulfur recovery plant to exceed 0.01 pounds (kg) per pound (kg) of sulfur processed.

(d) **Nonferrous smelters.**

No person shall cause or permit the emission of sulfur compounds, expressed as sulfur dioxide, from primary non-ferrous smelters to exceed that set forth according to the following equations.

Copper smelters: $Y = 0.2 X$

Zinc smelters: $Y = 0.564 X 0.85$

Lead smelters: $Y = 0.98 X 0.77$

Where X is the total sulfur fed to the smelter in lb/hr and Y is the allowable sulfur dioxide emissions in lb/hr.

(e) **Sulfite pulp mills.**

No person shall cause or permit the total sulfite pulp mill emissions of sulfur compounds, expressed as sulfur dioxide, from blow pits, washer vents, storage tanks, digester relief, recovery system, etc., to exceed 9.0 pounds per air-dried ton (4.5 kg/metric ton) of pulp produced.

(f) **Other process sources.**

Notwithstanding the provisions of section 22a-174-18(f) of the Regulations of Connecticut State Agencies, process sources not covered in subsections (b) through (e) of this section shall not emit sulfur compounds, expressed as sulfur dioxide, in the stack effluent in concentrations that exceed 500 parts per million at standard temperature and pressure.

(Effective August 1, 1983; Amended April 1, 2004; Amended April 15, 2014)

Sec. 22a-174-19a. Control of sulfur dioxide emissions from power plants and other large stationary sources of air pollution

(a) **Definitions.** For purposes of this section:

(1) "Affected state" means "affected states" as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(2) "Affected unit" means a fossil-fuel fired:

(A) Stationary source that serves a generator with a nameplate capacity of 15 MW or more; or

(B) Boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBtu/hr or more.

(3) "Average emissions rate" means a determination of the rate of SO_2 emissions, measured in pounds of SO_2 per MMBtu, in any calendar quarter from either a single affected unit or from two or more affected units. Average emissions rate for a single unit is calculated by dividing the total quarterly SO_2 emissions, in pounds, from such unit by the total quarterly heat input, in MMBtu, for such unit. Average emissions rate for two or more units is calculated by dividing the total quarterly SO_2 emissions, in pounds, from all such units by the total quarterly heat input, in MMBtu, for all such units.

(4) "Boiler" means an enclosed fossil-or other-fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam or other medium.

(5) "Calendar quarter" means the period of January 1 to March 31, inclusive, April 1 to June 30, inclusive, July 1 to September 30, inclusive or October 1 to December 31, inclusive.

(6) "Connecticut State SO_2 Retirement Account" means a general allowance tracking system account established by the commissioner under 40 CFR 73.31 for the purpose of permanently holding SO_2 allowances retired by the owners or operators of affected units in accordance with the provisions of subsection (d) of this section.

(7) "Continuous emissions monitoring system" or "CEMS" means any equipment used to sample, analyze and measure SO_2 emissions to provide a permanent record of such emissions expressed in pounds per MMBtu.

(8) "Emissions unit" means "emission unit" as defined in section 22a-174-1 of the

Regulations of Connecticut State Agencies.

(9) "Indirect heat exchanger" means combustion equipment in which the flame or products of combustion are separated from any contact with the principal material in the process by metallic or refractory walls, and that emits exhaust gases only through a stack. "Indirect heat exchangers" include, but are not limited to, steam boilers, vaporizers, melting pots, heat exchangers, column reboilers, fractioning column feed preheaters, reactor feed preheaters, pyrolysis heaters and fuel-fired reactors.

(10) "MMBtu" means million BTU of heat input.

(11) "Retire" or "retirement" when referring to SO_2 allowances, means the permanent withdrawal of SO_2 allowances by the Administrator from any allowance tracking system account to the Connecticut SO_2 Allowance Retirement Account in an amount equal to the number of tons of SO_2 emitted by each affected unit.

(12) "Sulfur dioxide" or "SO_2" means a gas that at standard conditions has the molecular form SO_2.

(13) "Title IV SO_2 allowance" or "SO_2 allowance" means an authorization allocated to a Title IV source by the Administrator, pursuant to Title IV of the federal Clean Air Act (42 USC 7651d, et seq.) and 40 CFR Parts 72 and 73, to emit up to one ton of SO_2 during or after a specified calendar year.

(14) "Title IV source" means an affected unit that is also subject to Phase II of the acid rain control requirements set forth in Title IV of the federal Clean Air Act (42 USC 7651d, et seq.).

(b) **Applicability.** This section shall apply to the owner or operator of any affected unit.

(c) **Reserved.**

(d) **Additional Emission Reduction Requirements.**

(1) No later than the following March 1, for each calendar year, the owner or operator of each affected unit that is also a Title IV source shall retire one SO_2 allowance, rounded up to the next whole ton, for each ton of SO_2 emitted in the state of Connecticut. This requirement is in addition to any other requirements imposed on the owner or operator of a Title IV source by the Administrator under 40 CFR 72 and 73.

(2) The owner or operator of an affected unit shall retire the necessary amount of SO_2 allowances by requesting that the Administrator transfer such allowances to the Connecticut State SO_2 Retirement Account established by the commissioner pursuant to 40 CFR 73.31 and administered by the federal Environmental Protection Agency under the provisions of 40 CFR Parts 72 and 73. The transfer of SO_2 allowances in accordance with the provisions of this subdivision shall occur by March 1 for emissions occurring in the previous calendar year.

(3) Any SO_2 allowance retired in accordance with the provisions of this subsection shall be an allowance originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.

(e) **Sulfur dioxide emissions standards and fuel sulfur limits.** The owner or operator of an affected unit shall:

(1) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 3000 ppm (0.3 % sulfur, by weight);

(2) Meet an average emission rate of equal to or less than 0.33 pounds SO_2 per MMBtu for each calendar quarter for an affected unit at a premises; or

(3) Meet an average emission rate of equal to or less than 0.3 pounds SO_2 per MMBtu calculated for each calendar quarter, if such owner or operator averages the emissions from two or more affected units at a premises.

(f) **Reserved**.

(g) **Fuel Emergencies**.

(1) The commissioner may suspend the requirements of subsection (e) of this section for the owner or operator of any affected unit using a low-sulfur fuel. For the purposes of this subsection, a low-sulfur fuel is any solid, liquid or gaseous fuel with a sulfur content equal to or less than 3000 ppm (0.3% by weight). Such suspension shall be made only when the commissioner finds that the availability of fuel that complies with such requirements is inadequate to meet the needs of residential, commercial and industrial users in this state and that such inadequate supply constitutes an emergency.

(2) The commissioner shall specify in writing the period of time for which the suspension described in subdivision (1) of this subsection shall be in effect.

(3) No later than thirty days after the termination of any suspension of fuel sulfur limits made pursuant to this subsection, the owner or operator of an affected unit or units shall report to the commissioner in writing the amount of SO_2 emissions in excess of those that would have occurred had the use of compliant fuel at the affected source not been interrupted. If such excess SO_2 emissions from any premises exceed fifty tons, the commissioner may require that the owner or operator of such affected unit or units offset such SO_2 emissions.

(h) **Reserved.**

(i) **Record keeping.**

(1) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the applicable fuel sulfur limits of subsection (e)(1) of this section shall make and keep records in accordance with the following:

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the owner or operator shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the owner or operator shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of subsection (e)(1) of this section. Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82, or a more recent version of the same method. (Copies of ASTM test methods

referenced in this section may be obtained from the Department of Environmental Protection, Bureau of Air Management, 79 Elm Street, 5th floor, Hartford, CT 06106-5127; (860) 424-3027).

(2) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the average SO_2 emission rate limits of subsections (e)(2) or (e)(3) of this section shall make and keep records in accordance with the following:

(A) For affected units that are also Title IV sources, hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR 75;

(B) For affected units that are not Title IV sources:

(i) hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of either 40 CFR 60 or 75, or

(ii) if any affected unit does not have a CEMS in accordance with either 40 CFR 60 or 75, then hourly SO_2 emission rate values determined from data measured by a CEMS or other monitoring system; and

(C) For all affected units, quarterly facility SO_2 emission rate averages, determined by dividing total quarterly SO_2 emissions by total quarterly heat input values for all affected units at the facility.

(3) The owner or operator of an affected unit shall keep the records specified in subdivision (1) or (2) of this subsection at the premises for a period of five years.

(j) **Reporting requirements.**

(1) The owner or operator of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to section 22a-174-33(q)(2) of the Regulations of Connecticut State Agencies, certify in writing to the commissioner compliance with the applicable provisions of this section. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit.

(2) The owner or operator of an affected unit for which the commissioner has not issued a final Title V permit shall certify in writing to the commissioner that such owner or operator is in compliance with the applicable provisions of this section on or before March 1 of each year for the previous calendar year. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit.

(k) **Duty to comply with the most stringent standards applicable to the affected units.**

(1) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to a more stringent emission standard or limitation imposed by order, permit or other applicable law, such owner or operator shall comply with the most stringent emission limitation or standard.

(2) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to additional monitoring or reporting requirements imposed

by order, permit or other applicable law, such owner or operator shall comply with the additional monitoring or reporting requirements.

(Adopted effective December 28, 2000; Amended April 4, 2006; Amended February 1, 2010; Amended April 15, 2014)

Sec. 22a-174-19b. Fuel sulfur content limitations for stationary sources

(a) **Definitions.** For the purposes of this section:

(1) "Aviation fuel" means a refined petroleum distillate defined in ASTM D1655, Standard Specification for Aviation Turbine Fuels, or the current active version thereof. "Aviation fuel" includes Jet A and Jet A-1 but does not include Jet B.

(2) "Combustion" means the rapid chemical combination of oxygen with the combustible element of a fuel resulting in the production of heat.

(3) "Fuel" means distillate fuel oil, residual oil, blends of distillate fuel oil and biodiesel fuel, blends of residual oil and biodiesel fuel, aviation fuel or kerosene.

(4) "Kerosene" means a refined petroleum distillate defined in ASTM D3699-08, Standard Specification for Kerosine, or the current active version thereof.

(5) "Sulfur dioxide" or "SO_2" means a gas that at standard conditions has the molecular form SO_2.

(b) **Applicability.** Except as provided in subsection (c) or (e) of this section, this section applies to any person who, on or after July 1, 2014, sells, supplies, offers for sale, stores, delivers or exchanges in trade in the state of Connecticut any fuel for combustion in a stationary source in the state of Connecticut and to any person who, on or after July 1, 2014, combusts any fuel in a stationary source within the state of Connecticut.

(c) **Exemptions.** The persons and fuels identified in this subsection are exempt from regulation pursuant to this section.

(1) The requirements of this section shall not apply to the fuel combusted in a mobile source.

(2) This section shall not apply to any person storing fuel in the state of Connecticut for shipment, sale and use outside of the state of Connecticut.

(3) Fuel stored in the state of Connecticut that meets any applicable sulfur content limitation at the time it is stored in the state of Connecticut may be stored, offered for sale, sold, delivered or exchanged in trade for combustion in the state of Connecticut and combusted in the state of Connecticut even if the sulfur content limitation applicable at the time of storage has been changed subsequent to the date of storage.

(4) This section shall not apply to a person combusting fuel in fuel-burning equipment undergoing testing as part of a research and development operation.

(5) The requirements of this section shall not apply to:

(A) Any person combusting fuel in a stationary source for which the fuel is subject to limitation under section 22a-174-19a of the Regulations of Connecticut State Agencies; or

(B) Any person selling or storing fuel for sale to a person identified in subparagraph (A) of this subdivision.

(6) The requirements of this section shall not apply to any person who sells, supplies, offers for sale, stores for sale or combusts number two heating oil subject to the sulfur content limitations of section 16a-21a of the Connecticut General Statutes.

(7) Any fuel in equipment that is leased or rented outside of the state of Connecticut for use in Connecticut may be combusted in the state of Connecticut regardless of the sulfur content, provided that all refueling of such leased or rented equipment performed while in Connecticut complies with the fuel sulfur content limits of Table 19b-1 of this section.

(d) **Fuel oil sulfur content limitations.**

(1) No person shall store, offer for sale, sell, deliver or exchange in trade, for combustion in a stationary source in the state of Connecticut, fuel that contains sulfur in excess of the applicable limitation set forth in Table 19b-1 of this section, except as provided in subsection (c) or (e) of this section.

(2) No person shall combust fuel in a stationary source that contains sulfur in excess of the applicable limitation set forth in Table 19b-1 of this section, except as provided in subsection (c) or (e) of this section.

(3) Notwithstanding compliance with subdivision (1) or (2) of this subsection, the commissioner may, by permit or order, impose additional restrictions on any owner or operator to limit the emission of sulfur compounds, expressed as sulfur dioxide, from any stationary source combusting fuel if the commissioner determines that operation of such equipment interferes with the attainment or maintenance of any applicable ambient air quality standard.

Table 19b-1

	Maximum Fuel Sulfur Content	
Fuel Type	**Effective July 1, 2014 through June 30, 2018**	**Effective on and after July 1, 2018**
Distillate fuel oil or distillate fuel oil blended with biodiesel fuel	500 ppm (0.05%) by weight	15 ppm (0.0015%) by weight
Residual oil or residual oil blended with biodiesel fuel	10,000 ppm (1.0 %) by weight	3000 ppm (0.3%) by weight
Aviation fuel combusted in a stationary source	3000 ppm (0.3%) by weight	3000 ppm (0.3%) by weight
Kerosene	400 ppm (0.04%) by weight	15 ppm (0.0015%) by weight

(e) **Fuel shortage emergency.**

(1) Under conditions of a fuel shortage emergency, as determined by the commissioner, the commissioner may approve in writing the sale or combustion of fuel with a sulfur

content that exceeds the applicable limitation in Table 19b-1 of this section. Any person seeking an approval under this subsection shall submit a request in writing to the Bureau of Air Management, Director of Engineering and Enforcement. Such request shall include:

(A) A detailed statement describing the reason for the fuel shortage and the acute nature of the shortage. A fuel shortage may be of a type for firing in a particular emission source or generally throughout the state;

(B) A statement that the acute nature of the shortage is the only reason for the request; and

(C) A signature of a responsible official as described in section 22a-174-2a(a) of the Regulations of Connecticut State Agencies.

(2) The commissioner may approve a request under this subsection provided:

(A) The requester has provided sufficient information concerning the fuel shortage;

(B) The request states that the acute nature of the shortage is the sole reason for the request;

(C) The request is signed by a responsible official; and

(D) Approval of the request will not create a condition that will cause imminent danger to the environment or public health.

(3) The commissioner shall notify the Administrator not later than five days after granting a request to sell or combust fuel that exceeds the limitations in Table 19b-1 of this section.

(4) In approving any request under this subsection, the commissioner shall specify, in writing, the period of time such suspension shall be in effect, provided such period of time shall not exceed 90 days.

(5) The provisions of this subsection shall be pre-empted when the Governor declares that an energy or fuel supply emergency exists.

(f) **Compliance determinations.**

(1) Any person selling fuel subject to a sulfur content limitation set forth in Table 19b-1 shall determine the sulfur content and quantity of each type of fuel sold.

(2) Any person selling fuel subject to a sulfur content limitation set forth in Table 19b-1 shall provide certification of the sulfur content of the fuel to each purchaser of fuel.

(3) Sulfur content shall be analyzed in accordance with American Society for Testing and Material (ASTM) test method D4294-10, *Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry*, or D7039-07, *Standard Test Method for Sulfur in Gasoline and Diesel Fuel by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry*, or the current active version thereof, and automatic sampling equipment shall conform to ASTM test method D4177-95(2010), *Standard Practice for Automatic Sampling of Petroleum and Petroleum Products*, or the current active version thereof.

(4) Any person may request the use of a method to analyze the sulfur content of fuel other than the method identified in subdivision (3) of this subsection, if the method is approved by a voluntary standards body such as ASTM or the International Standards Organization. Such a request shall name and describe the alternative method for which

approval is sought, the approving organization, and shall be submitted to the commissioner and Administrator for review and approval. Such alternative method may not be the sole method used to determine the sulfur content of fuel until approved by the commissioner and the Administrator.

(g) **Record keeping and reporting for fuel users and merchants.**

(1) Persons selling and combusting fuels in Connecticut subject to the requirements of this section shall maintain records of information necessary for the commissioner to determine compliance with the requirements of this section.

(2) Any person who sells fuel subject to the requirements of this section shall maintain records of the sulfur content of fuels sold, the heating value of such fuels and the quantities of fuels sold.

(3) Any person combusting fuel subject to the requirements of this section shall maintain records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient to satisfy the requirements of this subdivision if the certification or contract identifies:

(A) The name of the fuel seller;

(B) The type of fuel purchased;

(C) The sulfur content of the fuel purchased; and

(D) The method used to determine the sulfur content of the fuel purchased.

(4) All records made to demonstrate compliance with the requirements of this section shall be:

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created.

(Effective April 15, 2014)

Sec. 22a-174-20. Control of organic compound emissions

(a) **Storage of volatile organic compounds and restrictions for the Reid vapor pressure of gasoline.**

(1) Definitions. For the purposes of this subsection and subsections (b) and (c) of this section:

(A) "Aboveground" means located on or above the surface of the ground, partially buried, bunkered or located in a subterranean vault;

(B) "Approved control system" means, a vapor balance system or a vapor recovery system;

(C) "Degassing" means the process of removing organic vapors from a storage tank in preparation for human entry;

(D) "Delivery vehicle" means a tank truck, tank-equipped trailer, railroad tank car, or other mobile source equipped with a storage tank used for the transportation of gasoline from sources of supply to any stationary storage tank;

(E) "Dispensing facility" means any site where gasoline is delivered to motor vehicles other than agricultural vehicles from any stationary storage tank with a capacity of 250

gallons or more;

(F) "Floating roof" means a movable roof in a storage vessel consisting of a floating deck resting on the surface of the liquid contents, a continuous seal supported against the inner surface of the tank shell, and an envelope closing the gap between the floating deck and the seal. The entire deck, seal and envelope combination is free to rise and fall with the surface of the liquid during filling and emptying of the storage vessel;

(G) "Gasoline" means any petroleum distillate or petroleum distillate and alcohol blend commercially known or sold as "gasoline" and commonly used as an internal combustion engine fuel;

(H) "Gasoline storage tank farm" means a premises with any individual gasoline storage tank with a capacity equal to or greater than forty thousand (40,000) gallons;

(I) "Leak-free" means a condition that exists when the reading on a portable hydrocarbon analyzer is less than 500 ppm, expressed as methane, above background, measured using EPA Method 21, as identified in 40 CFR Part 60, Appendix A, Determination of Volatile Organic Compounds Leaks;

(J) "Loading facility" means any combination of equipment located on a premises and used to load or unload any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions;

(K) "Reid vapor pressure" or "RVP" means the vapor pressure of a liquid in pounds per square inch absolute at one hundred (100) degrees fahrenheit as determined by American Society for Testing and Materials method D5191-07 "Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method);"

(L) "Roof landing" means the reduction of the liquid level in a floating roof tank so that the floating roof is no longer floating on the surface of the stored liquid but is resting on its legs or is supported from above by cables or hangers;

(M) "Storage tank" means any tank, reservoir or vessel that is a container for liquids or gases, wherein:

(i) No manufacturing process, or part thereof, other than filling or emptying takes place, and

(ii) The only treatment carried out is treatment necessary to prevent change from occurring in the physical condition or chemical properties of the liquids or gases deposited into the container. Such treatment may include, but is not limited to, recirculating, agitating, maintaining the temperature of the stored liquids or gases, replacing air in the vapor space above the stored liquids or gases with an inert gas to inhibit the occurrence of a chemical reaction or adding a biocide to prevent microbial growth;

(N) "Throughput" means the number of gallons delivered through all equipment at a dispensing facility or a loading facility over a specified time interval;

(O) "Underground" means "underground" as defined in section 22a-449(d)-1(a)(2) of the Regulations of Connecticut State Agencies;

(P) "Vapor balance system" means a combination of pipes or hoses that creates a closed connection between the vapor spaces of an unloading tank and receiving tank such that

vapors displaced from the receiving tank are transferred to the tank being unloaded and for which the vapor space connections on the unloading tank, the receiving tank and the pipes or hoses used are equipped with fittings that are vapor-tight and will automatically and immediately close upon disconnection so as to prevent the release of vapors;

(Q) "Vapor recovery system" means a device or system that collects vapors to prevent release into the atmosphere. Collected vapors are recovered for use or destroyed; and

(R) "Vapor-tight" means not capable of allowing the passage of gases at the pressures encountered.

(2) No owner or operator shall place, store or hold in any aboveground storage tank of 40,000 gallons (150,000 liters) capacity or greater any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions unless the tank is designed and equipped with a vapor loss control device identified in either subparagraph (A), (B), (C) or (D) of this subdivision.

(A) The tank is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere;

(B) The tank is equipped with a fixed roof and a floating roof that rests on the surface of the liquid contents and is equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment is not permitted if the VOC has a vapor pressure of 11.0 pounds per square inch absolute (568 mm Hg) or greater under standard conditions. The owner or operator shall operate and maintain such a tank to ensure that:

(i) There are no visible holes, tears or other openings in the seal or any seal fabric or materials,

(ii) All openings except stub drains are equipped with covers, lids or seals such that:

(I) The cover, lid or seal is in the closed position at all times except when in actual use,

(II) Automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports, and

(III) Rim vents, if provided, are set to open to the manufacturer's recommended setting when the roof is floated off the roof leg supports or cables,

(iii) All tank gauging and sampling devices are vapor-tight except when tank gauging or sampling is taking place, and

(iv) No liquid accumulates on the top of the floating roof;

(C) The tank is equipped with a fixed roof and a vapor recovery system that is designed and operated to reduce emissions of VOCs to the atmosphere by at least 95 percent by weight. An owner or operator limiting vapor loss according to this subparagraph shall perform the following actions no later than ten years after the effective date of this subsection if the tank is in existence prior to the effective date of this subsection or by the initial fill date if a tank is constructed on or after the effective date of this subsection:

(i) Equip any gauging or sampling device on the tank with a leak-free cover that shall be closed at all times, with no visible gaps, except during gauging or sampling,

(ii) Maintain the fixed roof in a leak-free condition with no holes, tears or uncovered openings,

(iii) Install and maintain each roof opening in a leak-free condition at all times except when the cover is open for access or when a vent is required to be open to relieve excess pressure or vacuum in accordance with the manufacturer's design, and

(iv) Once per month, demonstrate compliance with this subsection by inspecting the fittings located on the roof, piping, pressure relief valves and all other valves to ensure they are leak-free using EPA Method 21 or using another method approved by the commissioner and the Administrator; or

(D) The tank is equipped with other equipment or means of air pollution control with an efficiency equal to or greater than that required under subparagraph (C) of this subdivision that is approved by the commissioner in a permit or order, where such permit or order has been approved by the Administrator.

(3) An owner or operator limiting vapor loss in accordance with subdivision (2)(B) of this subsection shall conduct inspections as follows:

(A) Once per month visually inspect the floating roof deck, deck fittings and rim seal system through the roof hatches of the fixed roof to determine compliance with the requirements of subdivision (2)(B) of this subsection; and

(B) Whenever the tank is emptied and degassed, but no less than once every 10 years, conduct an inspection from within the tank by:

(i) Visually inspecting the floating roof deck, deck fittings and rim seal system to determine compliance with the requirements of subdivision (2)(B) of this subsection and ensure that the seal between the floating roof and the tank wall is uniform, and

(ii) Physically measuring gaps between any deck fitting gasket, seal or wiper and any surface that such gasket, seal or wiper is intended to seal. Gaps shall not exceed 0.125 inches.

(C) The inspection specified in subparagraph (B) of this subdivision may be performed entirely from the top side of the floating roof as long as there is visual access to all deck components specified in subdivision (2)(B) of this subsection.

(4) For any tank subject to subdivision (2) of this subsection, if any piping, valves, vents, seals, gaskets or covers of roof openings are found to have defects or visible gaps or the VOC control requirements of this subsection are not met, the owner or operator shall:

(A) If the tank is not storing liquid, complete repairs or replacements prior to filling the tank;

(B) If the tank is storing liquid, complete repairs or replacements or remove the tank from service within 45 days after discovery of the defect or visible gap. If the owner or operator anticipates that a repair or replacement cannot be completed or the tank cannot be emptied within such 45 day period, the owner or operator shall notify the commissioner prior to the end of such 45 day period. The owner or operator shall make repairs or completely empty the tank as soon as possible; and

(C) Any evidence of leakage as described in this subsection shall also be treated as a malfunction of control equipment as described in section 22a-174-7 of the Regulations of Connecticut State Agencies.

(5) No person shall place, store, or hold in any stationary storage vessel of more than 250-gallon (950 liter) capacity any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions unless such vessel is equipped with a permanent submerged fill pipe or is a pressure tank as described in subdivision (2)(A) of this subsection. Submerged fill pipes installed on or prior to the effective date of this subsection shall have a discharge point no more than 18 inches from the bottom of the storage tank or be compliant with the requirements of 40 CFR 63 Subpart CCCCCC. Submerged fill pipes installed after the effective date of this subsection shall have a discharge point no more than six inches from the bottom of the storage tank.

(6) The provisions of subdivision (5) of this subsection shall not apply to the following:

(A) Loading of VOCs into any storage vessel having a capacity of less than one-thousand (1,000) gallons installed prior to June 1, 1972;

(B) Any underground storage vessel installed prior to June 1, 1972, where the fill pipe between the fill connection and the storage vessel is an offset fill pipe; or

(C) Any aboveground storage tank equipped with a floating roof.

(7) The external surfaces of any storage tank containing VOCs with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions that has a maximum capacity of 2,000 gallons (7,570 liters) or greater and is exposed to the rays of the sun shall be either mill-finished aluminum or painted and maintained white upon the next painting of the tank or by March 7, 2024, whichever is sooner. The external surfaces of any storage tank that is brought into service after the effective date of this subdivision, that has a maximum capacity of 2,000 gallons or greater and that is exposed to the rays of the sun shall be either mill-finished aluminum or painted and maintained white prior to being filled with any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions. The requirement to use mill-finished aluminum or white paint shall not apply to words and logograms applied to the external surface of the storage tank for purposes of identification provided such symbols do not cover more than 20 percent of the external surface area of the tank's sides and top or more than 200 square feet (18.6 square meters), whichever is less.

(8) When performing a roof landing of a floating roof tank, the owner or operator of any tank shall:

(A) When the roof is resting on its leg supports or suspended by cables or hangers, empty and refill the tank as a continuous process; and

(B) After the tank is degassed for the first time after the effective date of this subsection, any in-service roof landing shall be with the landed height of the floating roof at its minimum setting.

(9) An owner or operator of an aboveground storage tank shall perform degassing and cleaning as set out in this subdivision.

(A) Beginning with the first June 1 after the effective date of this subsection, an owner or operator shall not perform degassing of any aboveground storage tank subject to subdivision (2) of this subsection during the period from June 1 through August 31 of any

calendar year, except as provided in subparagraph (B) of this subdivision.

(B) Notwithstanding subparagraph (A) of this subdivision, an owner or operator may degas an aboveground storage tank at any time for the purpose of performing a repair that is necessary for safe and proper function of the tank. An owner or operator shall notify the commissioner when a tank is emptied and degassed under this subparagraph within 72 hours of completing the degassing and repair. Such notification shall be submitted to the Compliance Assistance and Coordination Unit of the Bureau of Air Management and shall include the following information:

(i) Identification of the facility and the tank degassed,

(ii) Identification of the VOC stored,

(iii) An explanation of the need to degas the tank during the period from June 1 through August 31,

(iv) The date the owner or operator determined that degassing and repair would be necessary,

(v) The dates that degassing commenced and was completed, and

(vi) The date that inspection, repair and refilling was or is anticipated to be completed.

(C) An owner or operator shall clean an aboveground storage tank subject to subdivision (2) of this subsection using one or more of the following methods:

(i) Using any of the following cleaning agents:

(I) Diesel fuel,

(II) A solvent with an initial boiling point of greater than 302 degrees Fahrenheit,

(III) A solvent with a vapor pressure less than 0.5 pounds per square inch,

(IV) A solvent with 50 grams per liter VOC content or less, or

(V) Another cleaning agent approved by the commissioner and the Administrator, or

(ii) Steam cleaning.

(10) Records.

(A) An owner or operator shall maintain records including, at a minimum, the information described in subparagraph (B) of this subdivision. All such records shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(B) An owner or operator shall maintain records of the following information:

(i) For a tank equipped with a vapor loss control device specified in subdivision (2) of this subsection:

(I) Type of VOC stored, vapor pressure and monthly throughput,

(II) A Material Safety Data Sheet or Environmental Data Sheet for each VOC stored, and

(III) Records of the inspections conducted under subdivision (3) of this subsection including, but not limited to, date of the inspection, results and corrective actions taken, if applicable,

(ii) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the

commissioner and the Administrator,

(iii) Date and type of maintenance performed on air pollution control equipment, if applicable,

(iv) Documentation of any leak detected pursuant to subdivision (4) of this subsection, including, but not limited to, the date the leak was detected, location of the leak, type of repair made and the date of repair and explanation of the reason for delaying repair, if applicable,

(v) For each floating roof landing event, the tank contents before landing and after refilling, landed height of the floating roof, height of any liquid remaining in the bottom of the tank after landing, duration of landing and landing emissions calculated using AP-42 Chapter 7 methodology,

(vi) Dates of all tank degassing activities performed pursuant to subparagraphs (A) or (B) of subdivision (9) of this subsection,

(vii) Date, cleaning method and cleaning agents used for any cleaning performed pursuant to subparagraph (C) of subdivision (9) of this subsection, and

(viii) Any approval by the commissioner or Administrator issued pursuant to this subsection.

(11) Between May 1 and September 15 the owner or operator of any gasoline storage tank farm shall not offer for sale, sell or deliver to any dispensing facility in Connecticut gasoline with a Reid Vapor Pressure in excess of 9.0 pounds per square inch.

(12) In addition to the requirements of section 22a-174-4a of the Regulations of Connecticut State Agencies, the commissioner may by permit or order require the owner or operator of any gasoline storage tank farm to provide records of the analysis of gasoline samples to determine compliance with the provisions of subdivision (11) of this subsection.

(13) Samples to be analyzed for RVP shall be collected and handled according to the applicable procedures in American Society for Testing and Materials method D 5842–95(2000), "Standard Practice for Sampling and Handling of Fuels for Volatility Measurement."

(14) RVP shall be determined using American Society for Testing and Materials method D5191-07 (2007), except that the following correlation equation shall be used:

RVP psi = (0.956 * X) − 0.347.

(b) **Loading of gasoline and other volatile organic compounds.**

(1) Reserved.

(2) No person shall load or permit the loading of any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions into any delivery vehicle from any loading facility with a throughput of 10,000 gallons or more in any one day unless such loading facility is equipped with a vapor collection and vapor recovery system or its equivalent, properly installed, in good working order, and in operation, and:

(A) The vapors discharged from the delivery vehicle during loading are processed by a vapor recovery system; and

(B) The amount of VOCs released to the ambient air is less than 80 milligrams per liter

of liquid loaded over a six (6) hour period. To determine compliance with this requirement the reference methods and test procedures found in 40 CFR 60.503(a) and 60.503(c), respectively, shall be used.

(3) No person shall load or permit the loading of any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions into any delivery vehicle having a capacity in excess of 200 gallons (760 liters) from any loading facility with a throughput of 10,000 gallons or more in any one day unless such loading facility is equipped with a loading arm with a vapor collection adaptor, pneumatic, hydraulic, or other mechanical means to force a vapor-tight seal between the adaptor and the hatch. A means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch of any delivery vehicle, or to accomplish complete drainage before such removal. When loading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings that make vapor-tight connections and close automatically when disconnected.

(4) Subdivisions (2) and (3) of this subsection shall apply only to the loading of VOCs with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions at a facility from which at least 10,000 gallons of such organic compounds are loaded in any one day. The applicability of subdivisions (2) and (3) of this subsection shall be based upon a thirty day rolling average, and once a loading facility exceeds this limit, the requirements of subdivisions (2) and (3) of this subsection shall apply.

(5) After April 1, 1982, no person shall transfer or allow the transfer of gasoline to or from any delivery vehicle to or from any loading facility with a throughput of less than 10,000 gallons a day and more than 4,000 gallons a day unless the transfer takes place through a submerged fill pipe and a vapor balance system is used. The throughput of a loading facility shall be based upon a thirty day rolling average and once a loading facility exceeds this limit, the requirements of this subdivision shall always apply.

(6) Reserved.

(7) Reserved.

(8) Reserved.

(9) Reserved.

(10) The owner or operator of a delivery vehicle shall:

(A) Ensure that the delivery vehicle is designed, operated and maintained to be vapor-tight at all times;

(B) Keep all hatches on the delivery vehicle closed and securely fastened at all times during loading and unloading operations;

(C) Set the pressure relief valves to release at no less than 0.7 pounds per square inch;

(D) Refill the vapor laden delivery vehicle only at facilities which meet the requirements of subdivisions (2) or (5) of this subsection;

(E) Properly connect all hoses in the vapor balance system prior to loading and unloading;

(F) Maintain all vapor return hoses, couplers and adapters used in gasoline delivery to

be vapor-tight;

(G) Ensure all delivery vehicle vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the dispensing facility storage tank;

(H) Dispense gasoline to a stationary storage tank having an approved control system in a manner that does not interfere with the collection efficiency of the control system;

(I) Load and unload in a manner that does not cause the delivery vehicle tank to be subject to a pressure in excess of 18 inches of water or a vacuum in excess of 6 inches of water; and

(J) Not transfer or allow the transfer of gasoline from a delivery vehicle to a dispensing facility stationary storage tank if there are leaks in pressure/vacuum relief valves or hatch covers of the delivery vehicle, in the truck tanks or in associated vapor and liquid lines.

(11) Reserved.

(12) Any owner or operator of a delivery vehicle that receives gasoline from a loading facility described in subdivisions (2) or (5) of this subsection or delivers gasoline to a dispensing facility subject to the provisions of section 22a-174-30a of the Regulations of Connecticut State Agencies shall not cause or permit such delivery vehicle to load or unload gasoline unless:

(A) The owner or operator tests the tank on such delivery vehicle once every twelve (12) months in accordance with Method 27 as set forth in Appendix A of Title 40 CFR 60 or another manner accepted by the Administrator and approved by the Commissioner in accordance with section 22a-174-5 of the Regulations of Connecticut State Agencies;

(B) During the test specified in subparagraph (A) of this subdivision, the tank sustains a pressure change of no more than three (3) inches of water in five (5) minutes when pressurized to a gauge pressure of eighteen (18) inches of water or when evacuated to a gauge pressure of six (6) inches of water;

(C) The delivery vehicle displays a marking near the U.S. Department of Transportation markings required by Title 49 CFR 177.824 which shows the initials "DEEP" or "DEP" and the date of the last test or comparable markings as required by either the Connecticut Department of Transportation or the Connecticut Department of Motor Vehicles; and

(D) Records of all tests performed under this subdivision are maintained for a minimum of five (5) years from the date of such tests and made available to the Commissioner within three (3) business days after the Commissioner requests such records.

(13) The owner or operator of any delivery vehicle that fails to meet the requirements of subdivision (12) of this subsection shall repair and retest such vehicle within fifteen (15) days or take such vehicle out of service. Prior to returning such vehicle to service, the owner or operator shall repair and retest the vehicle.

(14) Any person who performs a test or retest required by subdivision (12) or (13) of this subsection shall notify the Department's Bureau of Air Management, Field Operations Section of the time and location of the test or retest at least forty-eight (48) hours in advance.

(15) The Commissioner may test a delivery vehicle during loading and unloading

operations to evaluate its vapor-tightness by measuring the vapor concentration at a distance of one inch from the source with a combustible gas detector, calibrated with propane using the test procedure described in CARB TP-204.3, *Determination of Leaks*. Equipment is vapor-tight when a measured vapor concentration is less than 14,000 parts per million.

(16) The owner or operator of any loading facility or delivery vehicle subject to the provisions of this subsection shall:

(A) Develop a written operation and maintenance (O&M) plan for any equipment used to load or unload gasoline;

(B) Develop a formal training program implementing the O&M plan for any person who receives gasoline from a loading facility described in subdivisions (2) or (5) of this subsection or delivers gasoline to a dispensing facility subject to the provisions of section 22a-174-30a of the Regulations of Connecticut State Agencies or any loading facility subject to subdivision (5) of this subsection;

(C) Maintain a copy of the O&M plan and training program materials at the subject facility; and

(D) Maintain monthly records demonstrating implementation of the O&M plan, including records of persons completing the training program required by subparagraph (B) of the subdivision, at the subject facility. All such records shall be:

(i) Made available to the Commissioner to inspect and copy upon request, and

(ii) Maintained for five (5) years from the date such record is created.

(17) The owner or operator of a loading facility with a throughput of 4,000 gallons or more in any day shall not cause, allow or permit leakage from any equipment in VOC service, including but not limited to pumps, valves and compressors. The owner or operator of any equipment in VOC service that is leaking as determined by sight, smell, sound or measurement of VOCs in excess of 5000 parts per million shall repair such leak no later than fifteen days after detection. A request to delay a repair of a leak may be made to the commissioner and the Administrator in writing if the repair is infeasible for technical or safety reasons. Such a request shall be submitted no later than 15 days after detection of the leak.

(c) **Volatile organic compound and water separation.** No owner or operator shall use any compartment of any single or multiple compartment volatile organic compound and waste water separator that receives effluent water containing 200 gallons (760 liters) a day or more of any VOC with a vapor pressure of 1.5 pounds per square inch or more from any equipment processing, refining, treating, storing, or handling VOCs unless such compartment is equipped with one or more of the following vapor loss control devices, properly installed, in good working order, and in operation:

(1) A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be vapor-tight except when gauging or sampling is taking place;

(2) A container equipped with a floating roof that rests on the surface of the contents and is equipped with a closure seal or seals to close the space between the roof edge and

container wall. All gauging and sampling devices shall be vapor-tight except when gauging or sampling is taking place;

(3) A container equipped with a vapor recovery system that reduces VOC emissions by at least 95 per cent by weight; or

(4) A container having other equipment of equivalent efficiency may be approved by the commissioner in a permit or order, where such permit or order has been approved by the Administrator.

(d) **Pumps and compressors.** All pumps and compressors handling "volatile organic compounds" with a vapor pressure of 1.5 pounds per square inch or greater under actual storage conditions shall have mechanical seals or other equipment of equal efficiency for purposes of "air pollution" control as may be approved by the "Commissioner," except that in cases where mechanical seals are impractical because of the abrasive or corrosive nature of the liquid handled, best available technology for the reduction of "organic compound" "emissions" shall be deemed equivalent to the use of mechanical seals.

(e) **Waste gas disposal.**

(1) No "person" shall cause or permit any "emission" from any ethylene producing plant or other ethylene "emission" "source" unless the waste gas stream is properly burned at 1300°F. (704°C) for 0.3 second or greater in a direct-flame afterburner or an equally effective device as approved by the "Commissioner." This provision shall not apply to emergency reliefs and vapor blowdown systems.

(2) No "person" shall cause or permit any "emission" of organic gases from a vapor blowdown systems or emergency relief unless these gases are burned by smokeless "flares" or an equally effective control device as approved by the "Commissioner." Exemption to this section will be considered when the frequency of venting and the quantity of potential release are low, and all occurrences are reported to the "Commissioner." In the case of emergency reliefs, exemption will also be considered if the "Commissioner" determines that addition of control equipment would constitute an explosion hazard or other safety hazard.

(f) **Organic solvents**.

(1) No "person" shall cause or permit the discharge into the atmosphere of more than 40 pounds of organic materials in any one day, nor of more than 8 pounds in any one hour, from any article, machine, equipment or other contrivance, in which any organic solvent or any material containing organic solvent comes into contact with flame or is baked, heat-cured or heat-polymerized, in the presence of oxygen, unless the discharge has been reduced by at least 85 percent overall. Those portions of any series of articles, machines, equipment or other contrivances designed for processing a continuous web, strip or wire which emit organic materials and using operations described in this subsection are collectively subject to compliance with this subdivision.

(2) No "person" shall cause or permit the discharge into the atmosphere of more than 40 pounds of organic materials in any one day, nor of more than 8 pounds in any one hour, from any article or machine, other than described in subdivision (f) (1), for employing or

applying any highly photochemically reactive solvent as defined in subdivisions (i) (1) or (i) (2) of this section unless the discharge has been reduced by at least 85 percent overall. "Emissions" of organic materials into the atmosphere resulting from air or heated drying or products for the first 12 hours after their removal from any article, machine, equipment, or other contrivance described in this subdivision are included in determining compliance with this subdivision. "Emissions" resulting from baking, heat-curing, or heat-polymerizing as described in subdivision (f) (1) are excluded from determination of compliance with this subdivision. Those portions of any series or articles, machines, equipment or other contrivances designed for processing a continuous web, strip or wire which emit organic materials and using operations described in this subdivision shall be collectively subject to compliance with this subdivision.

(3) Reserved.

(4) On or after June 1, 1973, no "person" shall cause or permit the discharge into the atmosphere of more than 800 pounds of organic materials in any one day, nor more than 160 pounds in any one hour, from any article, machine, equipment or other contrivance in which any organic solvent or any material containing such solvent is employed or applied, unless the discharge has been reduced by at least 85 percent overall. "Emissions" of organic materials into the atmosphere resulting from air or heated drying of products for the first 12 hours after their removal from any article, machine, equipment, or other contrivance described in this subsection are included in determining compliance with this subdivision. "Emissions" resulting from baking, heat-curing, or heat-polymerizing as described in subsection (f) (1) are excluded from determination of compliance with this subdivision. Those portions of any series of articles, machines, equipment or other contrivances designed for processing a continuous web, strip or wire which emit organic materials and using operations described in this subsection are collectively subject to compliance with this subdivision.

(5) "Emissions" of organic materials to the atmosphere from the cleanup of any article, machine, equipment or other contrivance described in subdivisions (f) (1) through (f) (4) inclusive are included with the other "emissions" of organic materials from that article, equipment or other contrivance for determining compliance.

(6) The owner or "operator" of a "source" subject to subdivision (f) (1), (f) (2) or (f) (4) shall achieve the "emission" limits under those paragraphs by:

(A) Incineration, provided that 90 percent or more of the carbon in the organic material being incinerated is oxidized to carbon dioxide each hour. However, incineration is not acceptable for halogenated hydrocarbons;

(B) Adsorption, provided that organic emissions are reduced by 90 percent or more each hour; or

(C) A system demonstrated to have control efficiency equivalent to or greater than the above and approved by the "Commissioner" by permit or order.

(7) A "person" incinerating, adsorbing, or otherwise processing organic materials pursuant to subdivision (f) (6) shall provide, properly install, and maintain in calibration,

in good working order, and in operation, devices or procedures as specified by the "Commissioner" for indicating and recording temperatures, pressures, rates of flow, or other operating conditions necessary to determine the degree and effectiveness of "air pollution" control.

(8) Any "person" using or supplying solvents or any materials containing organic solvents shall supply the "Commissioner," upon request and in the manner and form prescribed by him, written evidence of the chemical composition, physical properties, and amount consumed for each organic solvent used.

(9) The provisions of subsection (f) shall not apply to:

(A) The use of equipment for which other requirements are specified by any one of the following subsections of this section: (a) through (e), (k) through (y) or (ff) through (jj); or for which reasonably available control technology is required by section 22a-174-32 of the Regulations of Connecticut State Agencies;

(B) The spraying or other employment of insecticides, pesticides, or herbicides; or

(C) The "emission" of "organic compounds" from coating operations where the "volatile organic compound" portion of the coating solvent is 20 per cent or less by weight.

(10) For the purposes of subsection (f), organic materials are defined as chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate.

(11) For the purposes of subsection (f), organic solvents include diluents and thinners and are defined as organic materials which are liquids at "standard conditions" and which are used as dissolvers, viscosity reducers or cleaning agents, except that such materials which exhibit a boiling point higher than 220°F under standard conditions or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 220°F.

(12) For the purpose of subdivisions (f) (1) and (f) (4), 85 percent reduction of organic materials "emissions" shall mean 85 percent reduction of total organic materials "emissions" present when operations are conducted according to good industrial practice.

(13) For the purpose of subdivision (f) (2) 85 percent reduction of "emissions" shall mean 85 percent reduction of highly photochemically reactive solvent "emissions" present when operations are conducted according to good industrial practice, utilizing the maximum proportion of highly photochemically reactive solvent appropriate to such good practice. Substitution of a nonhighly photochemically reactive solvent shall be considered 100 percent reduction of the highly photochemically reactive "emissions" involved.

(14) For the purposes of subsection (f), a continuous web, strip or wire means a product which contains at least one unbroken web, strip or wire from beginning to end of an article, machine, equipment or other contrivance (or series of) irrespective of the addition of any other materials during processing.

(g) **Reserved.**

(h) **Exemptions.** If the "Commissioner" determines that nonhighly photochemically unreactive solvents are not available for a particular application or class of applications,

then the Commissioner may issue an order providing for an exemption, provided that this shall not prevent the "attainment" or maintenance of the national "ambient air quality standard" for photochemical oxidants.

(i) **Classification of solvents.**

(1) The following solvents shall be considered highly photochemically reactive:

(A) Group R1: Any hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones, having an olefinic or cycloolefinic type of unsaturation.

(B) Group R2: Any aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene, phenyl acetate, and methyl benzoate.

(C) Group R3: Any ketones having branched hydrocarbon structures, and ethyl-benzene, trichloroethylene, and toluene.

(2) Any solvent mixture will be considered highly photochemically reactive if the composition of the mixture exceeds any of the following limits by volume:

(A) 5 percent of any combination of chemical compounds in group R1.

(B) 8 percent of any combination of chemical compounds in group R2.

(C) 20 percent of any combination of chemical compounds in group R3.

(D) 20 percent of any combination of chemical compounds in groups R1, R2, and R3.

(3) Whenever any organic solvent or any constituent of any organic solvent may be classified from its chemical structure into more than one of the above groups of "organic compounds," it shall be considered a member of the most reactive chemical group, which is, that group having the least allowable percent of the total volume of solvents.

(4) Any solvent not classified in subdivision (i) (1) and any solvent mixture which does not exceed any of the limits in subdivision (i) (2) of this section shall be considered nonhighly photochemically reactive.

(j) **Disposal and evaporation of solvents.** A "person" shall not, during any one day, dispose of more than one and one-half gallons (5.7 liters) of any volatile organic compound or of any material containing more than one and one-half gallons (5.7 liters) of any volatile organic compound by any means which will permit the evaporation of such solvent into the atmosphere.

(k) **Restrictions on VOC emissions from cutback and emulsified asphalt.**

(1) Definitions. For the purposes of this subsection:

(A) "Asphalt" means a dark brown or black solid, liquid or semisolid cementitious material composed primarily of bitumens that occur in nature or are obtained as residue in refining petroleum.

(B) "Cutback asphalt" means asphalt that has been liquefied by blending with a diluent of petroleum solvents or any other diluent that contains VOC.

(C) "Emulsified asphalt" means an emulsion of asphalt and water that contains a small amount of an emulsifying agent; it is a heterogeneous system containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase.

(2) Applicability.

This subsection shall apply to any person who, on or after May 1, 2009, stores, uses, solicits the use of, or applies asphalt for road paving, road maintenance or road repair.

(3) Standards.

(A) Except with prior written approval of the Commissioner and the Administrator as provided in subdivision (4) of this subsection, during the period from May 1 through September 30 of any calendar year, no person shall use or apply:

(i) Cutback asphalt; or

(ii) Emulsified asphalt, unless:

(I) The asphalt, as applied, was formulated to contain not greater than 0.1% VOC by weight, or

(II) The asphalt, as applied, produces not greater than 6.0 milliliter of oil distillate by distillation as tested by ASTM Method D 244 or AASHTO Method T 59.

(B) Any person who stores asphalt during the period of time from October 1 through April 30, may continue to store such asphalt during May 1 through September 30.

(4) Exceptions.

(A) The use or application of cutback asphalt or emulsified asphalt that does not comply with subdivision (3) of this subsection may be allowed upon obtaining approval from the Commissioner and the Administrator.

(B) Any request for an approval under this subdivision shall be made in writing to the Commissioner and the Administrator and shall include, at a minimum, the following information:

(i) The scope of the activity,

(ii) An assessment of alternative materials and procedures,

(iii) Quantification of the amount of VOC that would be emitted as a result of such activity,

(iv) The dates during which the activity will occur, and

(v) A demonstration that it is necessary for the activity to occur during the period commencing on May 1 and ending after September 30.

(5) Recordkeeping.

(A) Any person subject to this subsection shall:

(i) Maintain records of test, formulation, and usage data, and any other information necessary for the Commissioner to determine compliance with the requirements of this subsection,

(ii) Maintain all records required pursuant to this subsection in a readily accessible location in Connecticut for a minimum of five (5) years, and

(iii) Provide records made pursuant to this subsection to the Commissioner not later than thirty (30) days after a request to provide such records.

(B) Any person who has obtained approval for a non-complying use pursuant to subdivision (4) of this subsection shall maintain copies of the request, all supporting materials and the written approval of the Commissioner.

(*l*) **Metal cleaning.**

(1) Definitions. For the purposes of this subsection:

(A) "Air knife system" means "air knife system" as defined in 40 CFR 63.461.

(B) "Cold cleaning" means the batch process that involves spraying, brushing, flushing or immersion to clean and remove soils from metal surfaces using a degreasing solvent maintained at a temperature less than the boiling point of the solvent. Neither wipe cleaning nor spray application equipment cleaning is included in this definition.

(C) "Continuous web cleaning machine" means "continuous web cleaning machine" as defined in 40 CFR 63.461.

(D) "Conveyorized degreasing" means the continuous process of cleaning and removing soils from metal surfaces by operating with either cold or vaporized degreasing solvents.

(E) "Degreasing solvent" means any volatile organic compound used for metal cleaning.

(F) "Freeboard height" means, for a cold cleaner, the distance from the liquid solvent in the degreaser tank to the lip of the tank. For an open top vapor degreaser it is the distance from the solvent vapor level in the tank during idling to the lip of the tank. For a vapor conveyorized degreaser, it is the distance from the vapor level to the bottom of the entrance or exit opening whichever is lower. For a cold conveyorized degreaser, it is the distance from the liquid solvent level to the bottom of the entrance or exit opening whichever is lower.

(G) "Freeboard ratio" means the freeboard height divided by the smaller interior dimension (length, width or diameter) of the degreaser.

(H) "Open top vapor degreasing" means the batch process of cleaning and removing soils from metal surfaces by condensing hot degreasing solvent vapor on the colder metal parts.

(I) "Metal cleaning" means the process of cleaning soils from metal surfaces by cold cleaning or open top vapor degreasing or conveyorized degreasing.

(J) "Refrigerated chiller" means a device, mounted above the water jacket and the primary condenser coils, that consists of secondary coils which carry a refrigerant to provide a chilled air blanket above the solvent vapor to reduce emissions from the degreaser bath. The chilled air blanket temperature, measured at the centroid of the degreaser at the coldest point, shall be no greater than 30% of the solvent's boiling point in degrees Fahrenheit.

(K) "Special and extreme solvent metal cleaning" means the use of a cold cleaning unit to clean metal parts where such metal parts are used:

(i) In the research, development, manufacture and rework of electronic parts, assemblies, boxes, wiring harnesses, sensors and connectors used in aerospace service,

(ii) In manufacturing ozone, nitrous oxide, fluorine, chlorine, bromine, halogenated compounds or oxygen in concentrations greater than 23%,

(iii) In the research, development, manufacture and rework of high precision products for which contamination must be minimized in accordance with a customer or other specification, or

(iv) In a manner that exposes such metal parts to ozone, nitrous oxide, fluorine, chlorine, bromine, halogenated compounds or oxygen in concentrations greater than 23%.

(L) "Squeegee system" means "squeegee system" as defined in 40 CFR 63.461.

(2) The provisions of this subsection apply with the following exceptions:

(A) Open top vapor degreasers with an open area smaller than one square meter (10.8 square feet) are exempt from the provisions of clauses (ii), (iv) and (v) of subparagraph (C) of subdivision (4) of subsection (*l*) of this section;

(B) Conveyorized degreasers with a solvent/air interface smaller than two square meters (21.6 square feet) are exempt from the provisions of subparagraph (C) of subdivision (5) of subsection (*l*) of this section; and

(C) Metal cleaning equipment which uses 1,1,1 trichloroethane, methylene-chloride, or trichlorotrifluoroethane.

(3) Except as provided in subdivisions (*l*)(6), (*l*)(7) or (*l*)(8) of this section, the owner or operator of any cold cleaning unit with an internal volume greater than one (1) liter and using solvents containing greater than five percent (5%) VOCs by weight shall meet the requirements of this subdivision.

(A) Equip the cleaning device with a cover that is easily operated with one hand.

(B) Equip the cleaning device with an internal rack or equipment for draining cleaned parts so that parts are enclosed under the cover while draining. Such drainage rack or equipment may be external for applications where an internal type cannot fit into the cleaning system.

(C) Collect and store waste solvent in closed containers. Closed containers used for storing waste solvent may contain a device that allows pressure relief but does not allow liquid solvent to drain from the container.

(D) Close the cover if parts are not being handled in the cleaner for two (2) minutes or more, or if the device is not in use.

(E) Drain the cleaned parts for at least 15 seconds or until dripping ceases, whichever is longer.

(F) If a degreasing solvent spray is used:

(i) Supply a degreasing solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray),

(ii) maintain a solvent spray pressure that does not exceed ten (10) pounds per square inch as measured at the pump outlet, and

(iii) perform spraying within the confines of the cold cleaning unit.

(G) Minimize the drafts across the top of each cold cleaning unit such that whenever the cover is open the unit is not exposed to drafts greater than 40 meters per minute, as measured between one and two meters upwind, at the same elevation as the tank lip.

(H) Do not operate the unit upon the occurrence of any visible solvent leak until such leak is repaired. Any leaked solvent or solvent spilled during transfer shall be cleaned immediately, and the wipe rags or other sorbent material used to clean the spilled or leaked solvent shall be immediately stored in covered containers for disposal or recycling.

(I) Provide a permanent, conspicuous label on or posted near each unit summarizing the applicable operating requirements.

(J) Maintain records of the information identified in this subparagraph for a minimum of five (5) years after such record is made:

(i) The type of solvent used, including a description of the solvent and the solvent name,

(ii) The vapor pressure of the solvent in mmHg measured at 20 degrees Celsius (68 degrees Fahrenheit),

(iii) The percent VOC content by weight, and

(iv) The amount of solvent added to each unit on a monthly basis.

(K) On or after May 1, 2008, use only solvent that has a vapor pressure less than or equal to 1.0 mmHg at 20 degrees Celsius.

(L) Shall not clean sponges, fabric, wood, leather, paper and other absorbent material in a cold cleaning machine.

(4) The owner or operator of any open top vapor degreaser shall meet the requirements of this subdivision.

(A) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.

(B) Provide the following safety switches:

(i) A condenser flow switch and device which shuts off the sump heat if the condenser coolant is not circulating or if the vapor level rises above the height of the primary condenser; and

(ii) A spray safety switch which shuts off the spray pump if the vapor level drops more than 10 centimeters (4 inches) below the lowest condensing coil.

(C) Install one of the following control devices:

(i) Powered cover, if the freeboard ratio is greater than or equal to 0.75, and if the degreaser opening is greater than 1 square meter (10 square feet);

(ii) Refrigerated chiller;

(iii) Enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser);

(iv) Carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of solvent/vapor area (when cover is open), and exhausting less than 25 parts per million of degreasing solvent averaged each complete adsorption cycle; or

(v) A control system, demonstrated to have control efficiency equivalent to or greater than that required of the carbon adsorption system required in this subparagraph which is approved by the commissioner by permit or order.

(D) Keep the cover closed at all times except when processing work loads through the degreaser.

(E) Store waste degreasing solvent only in covered containers and not dispose of waste degreasing solvent or transfer it to another party, such that greater than 20 percent of the waste degreasing solvent (by weight) can evaporate into the atmosphere.

(F) Minimize solvent carryout by:

(i) Racking parts to allow complete drainage;

(ii) moving parts in and out of the degreasing unit at less than 3.3 meters per minute (11 feet per minute);

(iii) holding the parts in the vapor zone at least thirty (30) seconds or until condensation ceases, whichever is longer;

(iv) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and

(v) allowing parts to dry within the degreasing unit for at least fifteen seconds or until visually dry, whichever is longer.

(G) Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope.

(H) Do not occupy more than half of the degreaser unit's open top area with a workload.

(I) Do not load the degreasing unit to the point where the vapor level would drop more than ten (10) centimeters (4 inches) when the workload is removed from the vapor zone.

(J) Always spray within the vapor level.

(K) Operate the degreasing unit so as to prevent water from being visually detectible in solvent exiting the water separator.

(L) Do not expose the degreasing unit to drafts greater than forty (40) meters per minute (131 feet per minute) as measured between 1 and 2 meters upwind and at the same elevation as the tank lip, nor provide exhaust ventilation exceeding twenty (20) cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreasing unit open area, unless necessary to meet OSHA requirements;

(M) Do not operate the unit upon the occurrence of any visible solvent leak until such leak is repaired;

(N) Provide a permanent, conspicuous label on or posted near each unit summarizing the applicable operating requirements;

(O) Maintain a monthly record of the amount of solvent added to each unit and keep such record for a minimum of two (2) years after such record is made; and

(P) If the open top vapor degreaser is equipped with a lip exhaust, the cover required in subparagraph (A) of this subdivision shall be located below the lip exhaust.

(5) The owner or operator of any conveyorized degreaser shall meet the requirements of this subdivision.

(A) Install one of the following control devices:

(i) Refrigerated chiller;

(ii) Carbon adsorption system, with ventilation greater than or equal to fifteen (15) cubic meters per minute per square meter (50 cubic feet per minute per square foot) of solvent/air area (when downtime covers are open), and exhausting less than twenty five (25) parts per million of degreasing solvent by volume averaged over each complete adsorption cycle; or

(iii) A system, demonstrated to have a control efficiency equivalent to or greater than that required of the carbon adsorption system required in this subparagraph, which is approved by the commissioner by permit or order.

(B) Provide the following safety switches:

(i) A condenser flow switch and device that shuts off the sump heat if the condenser

coolant is not circulating or if the vapor level rises above the height of the primary coil; and

(ii) A spray safety switch that shuts off the spray pump or the conveyor if the vapor level drops more than ten (10) centimeters (4 inches) below the lowest condensing coil.

(C) Store waste degreasing solvent only in covered containers and not dispose of waste degreasing solvent or transfer it to another party, such that greater than twenty (20) percent of the waste degreasing solvent (by weight) can evaporate into the atmosphere.

(D) Rack parts to allow complete drainage.

(E) Maintain conveyor speed at less than eleven (11) feet per minute, except that the owner or operator of any continuous web cleaning machine equipped with a squeegee system, air knife system or similar system to remove solvent film from the surfaces of a continuous web part, operated and maintained such that no visible solvent film remains on the continuous web part immediately after it exits the cleaning machine, shall be exempt from the conveyor speed requirement of this sub-paragraph.

(F) Use either a drying tunnel, rotating basket, or other equivalent method to prevent cleaned parts from carrying out solvent liquid.

(G) Place covers over entrances and exits immediately after conveyors and exhausts are shutdown, leaving them in place until just prior to start-up.

(H) Minimize openings during operation so that entrances and exits will silhouette workloads with an average clearance between the parts and the edge of the degreasing unit opening of less than ten (10) centimeters (4 inches) or less than ten (10) percent of the width of the opening.

(I) Prevent water from being visually detectible in solvent exiting the water separator.

(J) Do not provide exhaust ventilation exceeding twenty (20) cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreasing unit open area, unless necessary to meet OSHA requirements.

(K) Do not operate the unit upon the occurrence of any visible solvent leak until such leak is repaired.

(L) Provide a permanent, conspicuous label on or posted near each unit summarizing the applicable operating requirements.

(M) Maintain a monthly record of the amount of solvent added to each unit and keep such record for five (5) years after such record is made.

(6) The commissioner may deem a cold cleaning unit in compliance with the requirements of subparagraphs (A), (B), and (D) of subsection (*l*)(3) of this section, notwithstanding that such unit is uncovered, if the owner or operator submits written documentation to the commissioner's satisfaction demonstrating such unit provides equal or better control of volatile organic compound emissions than a similar cold cleaning unit meeting such requirements. The written documentation shall include information demonstrating compliance with the following criteria:

(A) The cold cleaner shall have a remote solvent reservoir;

(B) On or prior to April 30, 2008, the solvent used in the cold cleaner must not have a

vapor pressure that exceeds 4.3kPa (33mm Hg or 0.6 PSI) measured at 38°C (100°F) or be heated above 50°C (120°F);

(C) The sink-like work area shall have an open drain area less than 100 cm^2; and

(D) The waste solvent shall be stored or properly disposed of with minimal loss due to evaporation.

(7) Subsections (*l*)(3)(F) and (*l*)(3)(G) of this section shall not apply to the owner or operator of any cold cleaning unit used for special and extreme solvent metal cleaning if the owner or operator complies with the following requirements:

(A) Limits the amount of solvent consumed in special and extreme solvent metal cleaning spray operations at the premises, excluding solvent capture and recycled, to less than 3,000 gallons in any 12-month period;

(B) Uses a solvent with a VOC content less than 7.7 pounds per gallon; and

(C) In addition to the records required pursuant to subsection (*l*)(3)(J) of this section, makes and maintains records sufficient to demonstrate compliance with subparagraphs (A) and (B) of this subdivision.

(8) Subsection (*l*)(3)(K) of this section shall not apply to the owner or operator of any of the following cold cleaning units:

(A) Used for special and extreme solvent metal cleaning;

(B) For which the owner or operator has submitted a demonstration that compliance with subsection (*l*)(3)(K) of this section will result in unsafe operating conditions and received approval from the commissioner; or

(C) Located in a permanent total enclosure equipped with control equipment that is designed and operated with an overall VOC removal efficiency of 90 percent or greater.

(9) On and after May 1, 2008, any person who sells or offers for sale any solvent containing VOCs for use in a cold cleaning machine shall provide to the purchaser the following information:

(A) The type of solvent including a description of the solvent and the solvent name,

(B) The vapor pressure of the solvent measured in mmHg at 20 degrees Celsius (68 degrees Fahrenheit); and

(C) The percent VOC content by weight.

(m) **Can coating.**

(1) For the purpose of this subsection:

"End sealing compound" means a synthetic rubber compound that is applied on to can ends and that functions as a gasket when the end is assembled on the can.

"Exterior base coating" means a coating applied to the exterior of a can to provide exterior protection to the metal and to provide background for the lithographic or printing operation.

"Interior base coating" means a coating applied by roller coater or spray to the metal sheets for three-piece cans to provide a protective lining between the can metal and product.

"Interior body spray" means a coating sprayed on the interior of the can body to provide a protective film between the product and the can.

"Overvarnish" means a coating applied directly over ink to reduce the coefficient of

friction, to provide gloss or to protect the finish against abrasion and corrosion.

"Three-piece can side-seam spray" means a coating sprayed on the exterior and interior of a welded, cemented or soldered seam to protect the exposed metal.

"Two-piece can exterior end coating" means a coating applied by roller coating or spraying to the exterior end of a can to provide protection to the metal.

(2) The owner or operator of a can coating facility shall not cause or permit the discharge into the atmosphere of any volatile organic compounds from any coating in excess of;

(A) 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from sheet basecoat (exterior and interior) and overvarnish or two-piece can exterior (basecoat and overvarnish) operations.

(B) 0.51 kilograms per liter of coating (4.2 pounds per gallon), excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from two- and three-piece can interior body spray and two-piece can exterior end (spray or roll coat) operations.

(C) 0.66 kilograms per liter of coating (5.5 pounds per gallon), excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from three-piece can side-seam spray operations.

(D) 0.44 kilograms per liter of coating (3.7 pounds per gallon), excluding water and exempt organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from end sealing compound operations.

(3) The provisions of this subsection apply to any premises that has actual emissions of fifteen (15) pounds per day or more in any one day from can coating operations. After October 1, 1989 any premises that is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection regardless of the daily actual emissions. Notwithstanding the above, the owner or operator of any piece of equipment that was not required to meet control requirements by this subsection prior to October 1, 1989, shall have until October 1, 1990, to comply with the control requirements of this subsection for that piece of equipment.

(n) **Coil coating.**

(1) For the purpose of this subsection:

"Coil coating" means the coating of any flat metal sheet or strip that comes in rolls or coils.

(2) The owner or operator of a coil coating facility shall not cause or permit the discharge into the atmosphere of any volatile organic compounds from any coating in excess of 0.31 kilograms per liter of coating (2.6 pounds per gallon), excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from prime and topcoat or single coat operations.

(3) The provisions of this subsection apply to any premises that has actual emissions of fifteen (15) pounds per day or more in any one day from coil coating operations. After October 1, 1989 any premises that is or becomes subject to the provisions of this subsection

shall remain subject to the provisions of this subsection regardless of the daily actual emissions, notwithstanding the above, the owner or operator of any piece of equipment that was not required to meet control requirements by this subsection prior to October 1, 1989, shall have until October 1, 1990, to comply with the control requirements of this subsection for that piece of equipment.

(o) **Fabric and vinyl coating.**

(1) For the purpose of this section:

"Fabric coating" means the coating of a textile substrate with a knife, roll or rotogravure coater to impart properties that are not initially present, such as strength, stability, water or acid repellency, or appearance.

"Knife coating" means the application of a coating material to a substrate by means of drawing the substrate beneath a knife that spreads the coating evenly over the full width of the substrate.

"Roll coating" means the application of a coating material to a substrate by means of hard rubber or steel rolls.

"Rotogravure coating" means the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.

"Vinyl coating" means applying a decorative, functional or protective coating or printing on vinyl coated fabric or vinyl sheets.

(2) The owner or operator of a fabric coating line or a vinyl coating line shall not cause or permit the discharge into the atmosphere of any volatile organic compounds from any coating in excess of:

(A) 0.35 kilograms per liter of coating (2.9 pounds per gallon), excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from a fabric coating line; and

(B) 0.45 kilograms per liter of coating (3.8 pounds per gallon), excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from a vinyl coating line.

(3) The provisions of this subsection apply to any premises that has actual emissions of fifteen (15) pounds per day or more in any one day from fabric or vinyl coating operations. After October 1, 1989 any premises that is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection regardless of the daily actual emissions. Notwithstanding the above, the owner or operator of any piece of equipment that was not required to meet control requirements by this subsection prior to October 1, 1989, shall have until October 1, 1990, to comply with the control requirements of this subsection for that piece of equipment.

(p) **Metal furniture coating.**

(1) Definitions. For the purpose of this subsection:

(A) "Air-dried" means cured at a temperature below 90°C (194°F);

(B) "As-applied" means the composition of coating at the time it is applied to a substrate,

including any solvent, catalyst or other substance added to the coating as supplied by the manufacturer;

(C) "Baked" means cured at a temperature at or above 90°C (194°F);

(D) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from metal furniture coating and related cleaning, expressed as a percentage;

(E) "Control device efficiency" means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(F) "Coating" means a material that is applied to a surface and that forms a continuous film in order to beautify or protect such surface;

(G) "Coating unit" means a series of one or more coating applicators and any associated drying area or oven wherein a coating is applied, dried or cured, including any drying area or oven where a coating is applied, dried or cured prior to any subsequent application of a different coating. A "coating unit" does not include any point other than the point where the coating is dried or cured;

(H) "Dip coating" means a method of applying a coating to a surface by submersion into and removal from a coating bath;

(I) "Electric-insulating and thermal-conducting coating" means a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-degree-Fahrenheit;

(J) "Electrostatic application" means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;

(K) "Extreme high gloss coating" means a coating that, when tested by the most recent active version of the American Society for Testing Material Test Method D523, shows a reflectance of 75 or more on a 60 degree meter;

(L) "Extreme performance coating" means a coating used on a metal surface where the coated surface is, in its intended use, subject to one of the following conditions:

(i) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution,

(ii) Repeated exposure to temperatures in excess of 121.1°C (250°F), or

(iii) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleaners or scouring agents;

(M) "Flow coating" means a non-atomized technique of applying coating to a substrate using a fluid nozzle in a fan pattern with no air supplied to the nozzle;

(N) "Heat-resistant coating" means a coating that is required to withstand a temperature of at least 204.5dg C (400°F) during normal use;

(O) "HVLP spray application" means to apply a coating using a high-volume, low-pressure spray application system that is designed to operate at air pressures between 0.1 and 10 pounds per square inch gauge, measured dynamically at the center of the air cap and the air horns;

(P) "Metal furniture coating" means the application of a surface coating to any furniture made of metal or any metal part that will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece;

(Q) "Metallic coating" means a coating that contains more than five grams of metal particle per liter of coating, as-applied;

(R) "Multi-component coating" means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film;

(S) "One-component coating" means a coating that is ready for application as packaged for sale, except for the addition of a thinner to reduce the viscosity;

(T) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(U) "Pretreatment coating" means a coating, containing no more than 12% solids by weight and at least one-half percent acid by weight, applied directly to metal surfaces to provide surface etching, adhesion and ease when stripping;

(V) "Repair coating" means a coating used to recoat portions of a product that has sustained mechanical damage to the coating following normal painting operations;

(W) "Roll coating" means a coating method using a machine that applies coating to a substrate by continuously transferring coating through a set of oppositely rotating rollers;

(X) "Safety-indicating coating" means a coating that changes in a physical characteristic, such as color, to indicate unsafe conditions;

(Y) "Solar-absorbent coating" means a coating that has as its prime purpose the absorption of solar radiation;

(Z) "Solid-film lubricant" means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene or other solids that act as a dry lubricant between faying surfaces; and

(AA) "Stencil coating" means an ink or a coating that is rolled or brushed onto a template or stamp to add identifying letters or numbers to metal parts or products.

(2) Applicability.

(A) The provisions of this subsection apply to:

(i) An owner or operator of any premises that has actual emissions of VOC of at least 15 pounds per day from metal furniture coating and related cleaning, prior to the use of controls, or

(ii) An owner or operator that became subject to this subsection on and after October 1, 1989.

(B) Any owner or operator conducting metal furniture coating shall:

(i) Comply with the requirements of this subsection no later than January 1, 2011, and

(ii) Remain subject to this subsection regardless of actual daily VOC emissions.

(3) Exemptions and exceptions.

(A) The requirements of this subsection shall not apply to the following coatings or

lubricant:

(i) Stencil coating,

(ii) Safety-indicating coating,

(iii) Solid-film lubricant,

(iv) Electric-insulating and thermal-conducting coating,

(v) Repair coating, or

(vi) Coating applied with a hand-held aerosol can.

(B) An owner or operator of a metal furniture coating unit operating in accordance with subdivision (5) of this subsection is exempt from any obligation to comply with subsection (bb) of this section.

(C) The requirements of subdivision (4) of this subsection shall not apply to a person using air pollution control equipment to comply with subdivision (5) of this subsection.

(D) An owner or operator of a metal furniture coating unit operating under a valid order issued pursuant to subsection (cc)(2) of this section or a valid permit issued pursuant to subsection (cc)(3) of this section shall operate as required in such order or permit, regardless of the requirements of this subsection.

(4) Application methods. A person shall not apply a VOC-containing coating to any metal furniture or metal furniture part unless the coating is applied by one of the following methods using equipment operated in accordance with the specifications of the equipment manufacturer:

(A) Electrostatic application;

(B) Flow coating;

(C) Dip coating;

(D) Roll coating;

(E) HVLP spray application;

(F) Hand application; or

(G) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application.

(5) Compliance options. Except as provided in subdivision (3) of this subsection, no owner or operator of a metal furniture coating unit shall apply any coating, inclusive of any VOC-containing materials added to the original coating supplied by the manufacturer, unless the owner or operator uses one of the following methods to limit emissions of VOCs:

(A) Use only coatings with an as-applied VOC content no greater than the level specified in Table 20(p)-1, according to coating category and drying method. The VOC content limits of Table 20(p)-1 apply to the volume of coating as-applied, less water and less exempt VOC;

(B) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment that reduces uncontrolled VOC emissions to the atmosphere from a coating unit by an overall control efficiency of at least 90%; or

(C) An alternative emission reduction plan that achieves a level of control equivalent to the levels described in subparagraph (A) or (B) of this subdivision and that is requested from and approved by the commissioner in accordance with subsection (cc) of this section.

(6) Work practices. Each owner or operator shall use the following work practices:

(A) New and used VOC-containing coating or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of VOC-containing coating or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with VOC-containing coatings or cleaning solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) VOC-containing coating or cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

Table 20(p)-1. As-Applied VOC Content Limits Per Volume of Coating (Excluding Water and Exempt VOC) per Coating Category, Specific to the Drying Process

Coating Category	Baked		Air Dried	
	g/L	lb/gal	g/L	lb/gal
General, one component	275	2.3	275	2.3
General, multi-component	275	2.3	340	2.8
Extreme high gloss	360	3.0	340	2.8
Extreme performance	360	3.0	420	3.5
Heat-resistant	360	3.0	420	3.5
Metallic	420	3.5	420	3.5
Pretreatment	420	3.5	420	3.5
Solar-absorbent	360	3.0	420	3.5

(7) Records. An owner or operator shall maintain records of the information necessary for the commissioner to determine compliance with the applicable requirements of this subsection. All records shall be:

(A) Made available to the commissioner to inspect and copy upon request;

(B) Maintained for five years from the date such record is created; and

(C) Maintained in compliance with subsection (aa)(1) through (9) of this section.

(q) **Paper, film and foil coating.**

(1) Definitions. For the purpose of this subsection:

(A) "As-applied" means the composition of coating at the time it is applied to a substrate, including any solvent, catalyst or other substance added to the coating as supplied by the manufacturer;

(B) "Capture efficiency" means the ratio of VOC emissions delivered to the control

device to the total VOC emissions resulting from paper, film and foil coating and related cleaning, expressed as a percentage;

(C) "Coating" means a material applied onto or impregnated into a substrate for decorative, protective, or functional purposes. "Coating" does not include any material used to form an unsupported substrate, such as vinyl sheeting, blown film, cast film or extruded film.

(D) "Coating line" means a series of coating applicators, flash-off areas, and any associated curing or drying equipment between one or more unwind or feed stations and one or more rewind or cutting stations;

(E) "Control device efficiency" means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(F) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(G) "Paper, film and foil coating" means the application of a continuous layer of coating across the width or any portion of the width of a paper, film or foil substrate to: (i) Create a functional or protective layer; (ii) saturate a substrate for lamination; or (iii) provide adhesion between two substrates for lamination;

(H) "Pressure sensitive adhesive" means adhesive that forms a bond when pressure is applied, without activation via solvent, water or heat; and

(I) "Pressure sensitive tape and label coating" means the application of a pressure sensitive adhesive to a paper, film or foil substrate.

(2) Applicability.

(A) The provisions of this subsection apply to:

(i) An owner or operator of any premises that has actual emissions of VOC of at least 15 pounds (6.8 kilograms) per day from paper, film and foil coating and related cleaning, prior to the use of controls, or

(ii) An owner or operator conducting paper, film and foil coating that became subject to this subsection on and after October 1, 1989.

(B) Any owner or operator conducting paper, film and foil coating shall:

(i) Comply with the requirements of this subsection no later than January 1, 2011, and

(ii) Remain subject to this subsection regardless of actual daily VOC emissions.

(3) Exemptions and exceptions.

(A) The provisions of this subsection shall not apply to the following activities:

(i) Coating performed on any coating line that has both paper coating and printing stations and that is conducted pursuant to subsection (v) of this section,

(ii) The application of sizing or water-based clays in association with the use of a papermaking machine, or

(iii) The application of inks, coatings or adhesives in association with flexible package printing conducted pursuant to subsection (ff) of this section or offset lithographic or letterpress printing conducted pursuant to subsection (gg) of this section.

(B) An owner or operator of any paper, film and foil coating line operating in compliance with subdivisions (4) and (5) of this subsection is exempt from any obligation to comply with subsection (bb) of this section.

(C) An owner or operator of a paper, film and foil coating line operating under a valid order issued pursuant to subsection (cc)(2) of this section or a valid permit issued pursuant to subsection (cc)(3) of this section shall operate as required in such order or permit, regardless of the requirements of this subsection.

(4) Except as provided in subdivision (3) or (5) of this subsection, only coatings with an as-applied VOC content less than or equal to 350 grams per liter of coating, excluding the volume of any water and exempt compounds, shall be used for paper, film and foil coating.

(5) Additional requirements. The owner and operator of any paper, film and foil coating line with a potential to emit greater than 25 tons of VOCs per year, prior to the use of controls, shall use one of the following methods to control emissions of VOCs:

(A) Use only coatings that individually meet the applicable VOC emission limit of clauses (i) or (ii) of this subparagraph, as applicable, or use only coatings so that the daily weighted average of the VOC content of all coatings used on a single coating line meets the VOC emission limit of clause (i) of this subparagraph:

(i) For all coatings except pressure sensitive tape and label coatings, use only coatings that result in VOC emissions no greater than 0.35 kilograms of VOC per kilogram of coating solids applied, or

(ii) For pressure sensitive tape and label coatings, use only coatings that result in VOC emissions no greater than 0.20 kilograms of VOC per kilogram of coating solids applied;

(B) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment that reduces uncontrolled VOC emissions to the atmosphere from a coating line by an overall control efficiency of at least 90%; or

(C) An alternative emission reduction plan that achieves a level of control equivalent to the level described in subparagraph (A) of this subdivision and that is requested from and approved by the commissioner in accordance with subsection (cc) of this section.

(6) Work practices. Each owner or operator shall use the following work practices:

(A) New and used VOC-containing coating or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of VOC-containing coating or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with VOC-containing coating or cleaning solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) VOC-containing coating or cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

(7) Records. An owner or operator shall maintain records of the information necessary for the commissioner to determine compliance with the applicable requirements of this subsection. All records shall be:

(A) Made available to the commissioner to inspect and copy upon request;

(B) Maintained for five years from the date such record is created; and

(C) Maintained in compliance with subsection (aa)(1) through (9) of this section.

(r) **Wire coating.**

(1) For the purpose of this section:

"Wire coating" means the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

(2) The owner or operator of a wire coating oven shall not cause or permit the discharge into the atmosphere of any volatile organic compounds from any coating in excess of 0.20 kilograms per liter of coating (1.7 pounds per gallon), excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to the coating applicator from wire coating operations.

(3) The provisions of this subsection apply to any premises that has actual emissions of fifteen (15) pounds per day or more in any one day from wire coating operations. After October 1, 1989 any premises that is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection regardless of the daily actual emissions. Notwithstanding the above, the owner or operator of any piece of equipment that was not required to meet control requirements by this subsection prior to October 1, 1989, shall have until October 1, 1990, to comply with the control requirements of this subsection for that piece of equipment.

(s) **Miscellaneous metal and plastic parts coatings.**

(1) Definitions. For the purpose of this subsection, the following definitions apply:

"Ablative coating" means a coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating, to protect adjacent components from the heat or open flame;

"Adhesion promoter" means a very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material;

"Adhesive bonding primer" means a primer applied in a thin film to aerospace components to inhibit corrosion and increase adhesive bond strength;

"Aerospace high temperature coating" means a coating designed to withstand temperatures of more than 350°F;

"Aerospace vehicle or component" means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets and space vehicles;

"Air dried" means cured at a temperature below 90°C (194 °F);

"Airless spray application" means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;

"Air-assisted airless spray application" means a coating spray application system using

fluid pressure to atomize the coating and lower pressure air to adjust the shape of the spray pattern;

''Antichafe coating'' means a coating applied to areas of moving aerospace components that may rub during normal operations or installation;

''Antique aerospace vehicle'' means an aircraft or component thereof that was built at least 30 years ago and that is not routinely in commercial or military service in the capacity for which it was designed;

''Appurtenance'' means any accessory to a stationary structure, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways; fixed ladders; catwalks; fire escapes and window screens;

''As applied'' means the composition of coating at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating but excluding water and exempt compounds;

''Automotive-transportation part'' means an interior or exterior component of a motor vehicle or mobile source;

''Baked'' means cured at a temperature at or above 90°C (194°F);

''Base coat'' means the initial coating applied to a substrate in a process of applying two or more coatings;

''Bearing coating'' means a coating applied to an antifriction bearing, a bearing housing or the area adjacent to such a bearing to facilitate bearing function or to protect base material from excessive wear. ''Bearing coating'' does not include a material that can also be classified as a dry lubricative material or a solid film lubricant;

''Bonding maskant'' means a temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding;

''Business machine'' means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information or convert sound into electrical impulses for transmission, such as, typewriters, electronic computing devices, calculating and accounting machines, telephone and telegraph equipment and photocopy machines;

''Camouflage coating'' means a coating used, principally by the military, to conceal equipment from detection;

''Capture efficiency'' means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from the miscellaneous metal and plastic parts coating operation, expressed as a percentage;

''Caulking and smoothing compound'' means a semi-solid material that is applied by hand and used to smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. ''Caulking and smoothing compound'' does not include a material that can also be classified as a sealant;

''Chemical agent-resistant coating'' means an exterior topcoat designed to with- stand

exposure to chemical warfare agents or the decontaminants used on these agents;

''Chemical milling maskant'' means a coating that is applied directly to aluminum components to protect surface areas when chemically milling the component with a Type I or II etchant. ''Chemical milling maskants'' do not include bonding maskants, critical use and line sealer maskants, seal coat maskants, maskants that are defined as specialty coatings or maskants used with either a Type I or II etchant plus a bonding maskant, critical use and line sealer maskant or seal coat maskant;

''Cleaning solvent'' means any VOC-containing liquid, including a liquid impregnated wipe or towelette, used in cleaning;

''Clear coating'' means a colorless coating that contains binders but no pigment and that is formulated to form a transparent film;

''Coating'' means a material that is deposited in a thin, persistent, uniform layer across the surface of a substrate for aesthetic, protective or functional purposes, including but not limited to, paints, primers, inks and maskants. ''Coating'' does not include protective oils, acids and bases;

''Coating unit'' means a series of one or more coating applicators and any associated drying area or oven wherein a coating is applied, dried or cured. A ''coating unit'' ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating;

''Commercial exterior aerodynamic structure primer'' means a primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae and landing gear and doors for the purpose of extended corrosion protection and enhanced adhesion;

''Commercial interior adhesive'' means a material used in the bonding of passenger cabin interior components;

''Compatible substrate primer'' means one of the following coatings:

(A) A primer that is compatible with the filled elastomeric coating and is epoxy based,

(B) A primer that inhibits corrosion and is applied to bare metal surfaces or is applied prior to adhesive application, or

(C) A primer that is applied to surfaces, excluding fuel tanks, that can be expected to come into contact with fuel;

''Control device efficiency'' means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

''Corrosion prevention compound'' means a coating system that provides corrosion protection by displacing water and penetrating substrates, forming a protective barrier between the metal surface and moisture. ''Corrosion prevention compound'' does not include a coating containing oils or waxes;

''Critical use and line sealer maskant'' means a temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid

or alkaline solutions such as those used in anodizing, plating, chemical milling and processing of magnesium, titanium or high A8 strength steel, high-precision aluminum chemical milling of deep cuts and aluminum chemical milling of complex shapes, and includes materials used for repairs or to bridge gaps left by scribing operations;

''Cryogenic flexible primer'' means a primer designed to provide corrosion resistance, flexibility and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (- 275°F and below);

''Cryoprotective coating'' means a coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry and prevent ice formation;

''Cyanoacrylate adhesive'' means a fast-setting, single component adhesive that cures at room temperature and contains methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate;

''Dip coating'' means a method of applying a coating to a surface by submersion into and removal from a coating bath;

''Drum'' means any cylindrical metal container larger than 12 gallons capacity and less than or equal to 110 gallons capacity;

''Dry lubricative material'' means a coating consisting of lauric acid, cetyl alcohol, waxes or other non-cross linked or resin-bound materials that act as a dry lubricant;

''Electric dissipating coating'' means a coating that rapidly dissipates a high-voltage electric charge;

''Electric-insulating and thermal-conducting coating'' means a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot- degree-Fahrenheit;

''Electric-insulating varnish'' means a coating applied to electric motors, components of electric motors or power transformers to provide electrical, mechanical and environmental protection or resistance;

''Electric or radiation-effect coating'' means a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared or microwave regions and which may be used for lightning strike protection, electromagnetic pulse (EMP) protection and radar avoidance.

''Electrostatic application'' means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;

''Electrostatic discharge and electromagnetic interference coating'' or ''EMI coating'' means a coating applied to space vehicles, missiles, aircraft radomes and helicopter blades to disperse static energy or reduce electromagnetic interference;

''Electrostatic preparation coating'' means a coating applied to a plastic part solely to provide conductivity for the subsequent application of a primer, a topcoat or other coating through the use of electrostatic application methods;

''Elevated-temperature Skydrol-resistant commercial primer'' means a primer applied

primarily to commercial aircraft or commercial aircraft adapted for military use that withstands immersion in phosphate-ester hydraulic fluid (Skydrol 500b or equivalent) at the elevated temperature of 150˚F for 1,000 hours;

''EMI/RFI shield coating'' means a coating that functions to attenuate electromagnetic interference, radio frequency interference signals or static discharge;

''Epoxy polyamide topcoat'' means a coating containing epoxy and a polyamide component used to provide a hard, durable, chemical-resistant finish;

''Etching filler'' means a coating that contains less than 23% solids by weight and at least 0.5% acid by weight and is used as a substitute for the application of a pretreatment coating followed by a primer;

''Exempt compound'' means a carbon compound excluded from the definition of ''volatile organic compound,'' as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;

''Extreme high-gloss coating'' means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 75 or more on a 60 degree meter;

''Extreme performance coating'' means a coating used on a metal surface where the coated surface is, in its intended use, subject to one of the following conditions:

(D) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution,

(E) Repeated exposure to temperatures in excess of 250°F, or

(F) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleaners or scouring agents;

''Fire-resistant interior coating'' means, for civilian aircraft, fire-resistant interior coatings used on passenger cabin interior parts that are subject to Federal Aviation Administration fireworthiness requirements. For military aircraft, fire-resistant interior coatings are used on parts that are subject to the flammability requirements of MIL-STD-1630A and MIL-A-87721. For space applications, ''fire-resistant interior coating'' means a coating subject to the flammability requirements of SE-R-0006 and SSP 30233;

''Flexible primer'' means a primer with elastomeric qualities that provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings;

''Flight test coating'' means a coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation;

''Flow coating'' means a non-atomized technique of applying coating to a substrate using a fluid nozzle in a fan pattern with no air supplied to the nozzle;

''Fog coat'' means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids for the purpose of color matching without masking a molded-in texture;

''Fuel tank adhesive'' means an adhesive that must be compatible with fuel tank coatings and is used to bond components exposed to fuel;

''Fuel tank coating'' means a coating applied to fuel tank components for the purpose of corrosion or bacterial growth inhibition and to assure sealant adhesion in extreme environmental conditions;

''General'' means a coating category for a coating that does not meet any other category definition provided in this subsection for the specified substrate (i.e., metal part or plastic part);

''General aviation rework facility'' means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion or alteration of general aviation aerospace vehicles or components;

''Gloss reducer'' means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids solely to reduce the shine of the part;

''Heat-resistant coating'' means a coating able to withstand a temperature of at least 400° F during normal use;

''High-performance architectural coating'' means a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association's publication number AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Per- forming Organic Coatings on Aluminum Extrusions and Panels);

''High temperature coating'' means a coating certified to withstand a temperature of 1000°F for 24 hours;

''HVLP spray application'' means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;

''Insulation covering'' means material that is applied to foam insulation to protect the insulation from mechanical or environmental damage;

''Intermediate release coating'' means a thin coating applied beneath topcoats to assist in removing the topcoat in depainting operations and to allow the use of less hazardous depainting methods;

''Lacquer'' means a clear or pigmented coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction and that is resoluble in its original solvent;

''Large commercial aircraft'' means an aircraft of more than 110,000 pounds, maximum certified take-off weight, manufactured for non-military use;

''Mask coating'' means thin film coating applied through a template to coat a small portion of a substrate;

''Medical device'' means an instrument, apparatus, implement, machine, gadget, appliance, implant, *in vitro* reagent or other similar or related article, including any component, part or accessory, which meets one of the following conditions:

(G) Recognized in the official National Formulary or the United States Pharmacopeia or any supplement thereto,

(H) Intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment or prevention of disease in persons or animals, or

(I) Intended to affect the structure or function of the body of a person or animal and which does not achieve its primary intended purposes through chemical action within or on such body and which is not dependent upon being metabolized for the achievement of its primary intended purposes;

''Metalized epoxy coating'' means a coating that contains metallic pigmentation for appearance or added protection;

''Metallic coating'' means a coating that contains more than five grams of metal particles per liter of coating, as applied;

''Miscellaneous metal and plastic parts'' means metal and plastic components of products as well as the products themselves constructed either entirely or partially from metal or plastic including, but not limited to: aerospace vehicles and components, fabricated metal products, molded plastic parts, small and large farm machinery, commercial and industrial machinery and equipment, automotive or transportation equipment, interior or exterior automotive parts, construction equipment, motor vehicle accessories, bicycles and sporting goods, toys, recreational vehicles, extruded aluminum structural components, railroad cars, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, steel drums, metal pipes and small appliances;

''Mold-seal coating'' means the initial coating applied to a new mold or a repaired mold to provide a smooth surface that, when coated with a mold release coating, prevents products from sticking to the mold;

''Mold release'' means a coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed;

''Motor vehicle'' means any self-propelled vehicle, including, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks and armored personnel carriers;

''Motor vehicle bedliner coating'' means a multi-component coating applied to a cargo bed after the application of a topcoat to provide additional durability and chip resistance;

''Motor vehicle cavity wax'' means a coating applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection;

''Motor vehicle deadener'' means a coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment;

''Motor vehicle gasket/sealing material'' means a fluid applied to coat a gasket or replace and perform the same function as a gasket. Automobile and light-duty truck gasket/gasket sealing material includes room temperature vulcanization (RTV) seal material;

''Motor vehicle lubricating wax/compound'' means a protective lubricating material applied to vehicle hubs and hinges;

''Motor vehicle sealer'' means a high viscosity material generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before

the application of subsequent coatings (e.g., primer-surfacer). The primary purpose of automobile and light-duty truck sealer is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Such materials are also referred to as sealant, sealant primer, or caulk;

''Motor vehicle trunk interior coating'' means a coating applied to the trunk interior to provide chip protection;

''Motor vehicle underbody coating'' means a coating applied to the undercarriage or firewall to prevent corrosion or provide chip protection;

''Multi-colored coating'' means a coating packaged in a single container and applied in a single coat which exhibits more than one color when applied;

''Multi-component coating'' means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film;

''Nonstructural adhesive'' means an adhesive that bonds non-load bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories;

''One-component coating'' means a coating that is ready for application as packaged for sale, except for the addition of a thinner to reduce the viscosity;

''Optical antireflection coating'' means a coating with a low reflectance in the infrared and visible wavelength ranges that is used for antireflection on or near optical and laser hardware;

''Optical coating'' means a coating with a low reflectance in the infrared and visible wavelength range that is used on or near optical or laser lenses or hardware; ''Overall control efficiency'' means the product of the capture efficiency and the control device efficiency;

''Pan-backing coating'' means a coating applied to the surface of pots, pans or other cooking implements that are exposed directly to a flame or other heating element;

''Part marking coating'' means coatings or inks used to make permanent or temporary identifying markings on materials, components or assemblies;

''Plastic part'' means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid. ''Plastic part'' does not include a part made of fiberglass or composite material;

''Powder coating'' means any coating applied as a dry, finely divided solid that, when melted and fused, adheres to the substrate as a paint film;

''Prefabricated architectural component coating'' means a coating applied to prefabricated metal parts and products that are to be used as architectural appurtenances or structures and that are detached from the structure when coated in a shop environment;

''Pretreatment coating'' means a coating, containing at least 0.5 percent acid by weight, applied directly to a metal or composite surface to provide surface etching, corrosion resistance, adhesion and ease of stripping;

''Primer'' means a coating applied to prevent corrosion, provide protection or provide a surface for adhesion of subsequent coatings;

''Radome'' means the nonmetallic protective housing for electromagnetic transmitters

and receivers such as radar or electronic countermeasures;

''Rain erosion-resistant coating'' means a coating or coating system used to protect the leading edges of parts, such as flaps, stabilizers, radomes or engine inlet nacelles against erosion caused by rain impact during flight;

''Related cleaning'' means the removal of uncured coatings, coating residue and contaminants from:

(J) Miscellaneous metal and plastic parts prior to the application of coatings,

(K) Miscellaneous metal and plastic parts between coating applications, or

(L) Transfer lines, storage tanks, spray booths and coating application equipment;

''Repair coating'' means a coating used to recoat portions of a product that has sustained mechanical damage to the coating following normal painting operations;

''Resin'' means any of numerous physically similar polymerized synthetics or chemically modified natural materials including thermoplastic materials such as polyvinyl, polystyrene and polyethylene and thermosetting materials such as polyesters, epoxies and silicones;

''Resist coating'' means a coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part;

''Rocket motor bonding adhesive'' means an adhesive used in rocket motor bonding applications;

''Rocket motor nozzle coating'' means a catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles;

''Roll coating'' means a coating method using a machine that applies coating to a substrate by continuously transferring coating through a set of oppositely rotating rollers;

''Rubber-based adhesive'' means a quick-setting contact cement that provides a strong, yet flexible bond between two substrates that may be of dissimilar materials;

''Safety-indicating coating'' means a coating that changes in a physical characteristic, such as color, to indicate unsafe conditions;

''Scale inhibitor'' means a coating that is applied to the surface of a part prior to thermal processing to inhibit scale formation;

''Screen print ink'' means an ink used in screen printing processes during fabrication of decorative laminates and decals;

''Sealant'' means a material used to prevent the intrusion of water, fuel, air or other liquids or solids from certain areas of aerospace vehicles or components;

''Seal coat maskant'' means an overcoat applied over a maskant to improve abrasion and chemical resistance during production operations;

''Self-priming topcoat'' means one or more layers of identical coating formulation of a topcoat that is applied directly to an uncoated aerospace vehicle or component for corrosion prevention, environmental protection or functional fluid resistance;

''Shock-free coating'' means a coating applied to electrical components to protect the user from electric shock and that provides for low capacitance and high resistance and resists breaking down under high voltage;

''Silicone insulation material'' means an insulating material that is not sacrificial and that

is applied to exterior metal surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust;

''Silicone-release coating'' means any coating that contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans;

''Solar-absorbent coating'' means a coating that has as its primary purpose the absorption of solar radiation;

''Solid-film lubricant'' means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene or other solids that act as a dry lubricant between faying surfaces;

''Space vehicle'' means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere, including, but not limited to, integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets and test coupons, including auxiliary equipment associated with test, transport and storage, which through contamination can compromise the space vehicle performance;

''Specialty coating'' means a coating that, even though it meets the definition of a primer, topcoat or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats and self-priming topcoats for specific applications. Such performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesion or enhanced corrosion protection;

''Specialized function coating'' means a coating that is limited in application, characterized by low volume usage and is not able to be categorized as any other coating in Table 20(s)-6a;

''Stencil coating'' means an ink or a coating that is rolled or brushed onto a template or stamp to add identifying letters or numbers to metal parts or products;

''Structural autoclavable adhesive'' means an adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave;

''Structural nonautoclavable adhesive'' means an adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or other critical functions, such as nonstructural bonding in the proximity of engines;

''Temporary protective coating'' means a coating applied to provide scratch or corrosion protection during manufacturing, storage or transportation. ''Temporary protective coating'' does not include any coating that protects against strong acid or alkaline solutions;

''Texture coat'' means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating;

''Textured finish'' means a rough surface produced by spraying and splattering large drops of coating onto a previously applied coating;

''Thermal control coating'' means a coating formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate;

''Topcoat'' means the final coating applied in a process of applying two or more coatings;

''Touch-up coating'' means a coating used to cover minor coating imperfections appearing

after the main coating operation;

''Transfer efficiency'' means the portion of coating solids that adheres to the metal or plastic surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator;

''Translucent coating'' means a coating which contains binders and pigment and is formulated to form a colored, but not opaque, film;

''Vacuum-metalizing coating'' means the undercoat applied to a substrate on which the metal is deposited prior to a vacuum-metalizing process or the overcoat applied directly to the metal film after a vacuum-metalizing process;

''Vacuum metalizing process'' means the process of evaporating metals inside a vacuum chamber and depositing them on a substrate to achieve a uniform metalized layer;

''Wet fastener installation coating'' means a primer or sealant applied by dipping, brushing or daubing to fasteners that are installed before the coating is cured; and

''Wing coating'' means a corrosion-resistant topcoat that withstands the flexing of aircraft wings and rotary wings.

(2) Applicability.

(A) Except as provided in subdivision (7) of this subsection, the provisions of this subsection apply to the owner or operator of any:

(i) Coating unit subject at any time to the provisions of subsection (s) of this section that was in effect prior to the effective date of this regulation, or

(ii) Miscellaneous metal and plastic parts coating unit for which the owner or operator purchases for use at the premises 855 gallons or more of coatings and cleaning solvents in the aggregate per rolling 12-month period.

(B) Any owner or operator of a miscellaneous metal or plastic parts coating unit who does not meet the applicability requirements provided in subparagraph (A) of this subdivision shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.

(C) An owner or operator subject to this subsection shall:

(i) For a miscellaneous metal and plastic parts coating unit that is in operation prior to or on the effective date of this regulation, comply with the requirements of this subsection no later than January 1, 2013, or

(ii) For a miscellaneous metal and plastic parts coating unit that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation.

(D) Any owner or operator subject to this subsection shall remain subject to this subsection.

(3) Except as provided in subdivision (7) of this subsection, on and after January 1, 2013, no owner or operator shall apply any coating, inclusive of any VOC- containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C) or (D) of this subdivision. If more than one emission limit or emission rate applies in a particular situation,

then the least restrictive limit or emission rate shall apply. An owner or operator shall control the emission of VOCs as follows:

(A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b;

(B) For a coating unit, use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10;

(C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%; or

(D) Achieve a level of control that is equivalent to subparagraph (A), (B) or (C) of this subdivision, as requested from and approved by the commissioner, in accordance with subsection (cc) of this section.

(E) An owner or operator controlling emissions as provided in subparagraph (A), (B), (C) or (D) of this subdivision is exempt from any obligation to comply with subsection (bb) of this section.

(F) The requirements of subparagraphs (A), (B), (C) or (D) of this subdivision shall not apply to a coating upon request to and approval by the commissioner and the Administrator. Any request for approval shall be made in writing and shall include a description of the noncompliant coating and its VOC content, an explanation of why the noncompliant coating is necessary, the aggregate amount in gallons or pounds of noncompliant coating use anticipated in a 12-month period and the frequency of use of the noncompliant coating.

(4) Application methods. Except as provided in subdivision (7) of this subsection, an owner or operator shall not apply a VOC-containing coating to a miscellaneous metal and plastic part unless the coating is applied by one of the methods identified in subparagraphs (A) through (I) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:

(A) Electrostatic application;

(B) Flow coating;

(C) Dip coating;

(D) Roll coating;

(E) HVLP spray application;

(F) Airless spray application;

(G) Air-assisted airless spray application;

(H) Hand application; or

(I) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any owner or operator using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.

(5) Work practices. Each owner or operator shall use the following work practices:

(A) New and used VOC-containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container.

Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non- leaking container for disposal or recycling; and

(D) VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

(6) Notwithstanding the requirements of this subsection, an owner or operator complying with this subsection by operating under a valid permit or order issued pursuant to subsection (cc)(2) or (cc)(3) of this section shall continue to operate according to the terms of such permit or order.

(7) Exemptions and exceptions.

(A) The requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivisions (2) and (7)(G) of this subsection:

(i) Coating and cleaning subject to one of the following subsections of this section: (*l*) through (r) and (hh) through (kk),

(ii) Coating applied in an automotive refinishing operation and related cleaning,

(iii) Coating and associated surface preparation and cleanup subject to sections 22a-174-41 and 22a-174-41a of the Regulations of Connecticut State Agencies,

(iv) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing,

(v) Coating applied in a shipbuilding and repair operation, provided that the operation is subject to 40 CFR 63 Subpart II,

(vi) Coating applied to space vehicles and related cleaning,

(vii) Coating applied to antique aerospace vehicles and related cleaning,

(viii) Coating applied with a hand-held aerosol can,

(ix) Adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies,

(x) Quality control or inspection dyes applied to metal parts,

(xi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight,

(xii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight, or

(xiii) Maintenance coating and related cleaning of fixtures, equipment and components that are not products manufactured by the facility or products coated on a contract basis.

(B) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following coatings to metal parts:

(i) Stencil coating,

(ii) Safety-indicating coating,
(iii) Solid-film lubricant,
(iv) Electric-insulating and thermal-conducting coating,
(v) Magnetic data storage disk coating,
(vi) Plastic extruded onto metal parts to form a coating, or
(vii) Powder coating.

(C) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to plastic parts:
(i) Touch-up and repair coating,
(ii) Stencil coating applied on a clear or transparent substrate,
(iii) Clear or translucent coating,
(iv) Reflective coating applied to a highway cone,
(v) Mask coating less than 0.5 millimeters thick applied to an area less than 25 square inches,
(vi) EMI/RFI shield coating,
(vii) Any heparin-benzalkonium chloride (HBAC)-containing coating applied to a medical device, provided that the total of all HBAC-containing coatings used at a facility does not exceed 100 gallons per year, or
(viii) Powder coating.

(D) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to automotive-transportation and business machine parts:
(i) Vacuum metalizing coating,
(ii) Gloss reducer,
(iii) Texture coat,
(iv) Adhesion bonding primer,
(v) Electrostatic preparation coating,
(vi) Resist coating,
(vii) Stencil coating, or
(viii) Powder coating.

(E) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following specialty coatings to an aerospace vehicle or component:
(i) Touch-up coating, or
(ii) Aerospace coating that the United States Department of Defense has designated as classified information in accordance with 32 CFR 2001.

(F) The requirements of subdivision (4) of this subsection shall not apply to the following activities:
(i) Application of touch-up and repair coating to metal parts,
(ii) Application of textured finish to metal parts,
(iii) Application of powder coating to:
(I) Plastic parts,

(II) Automotive-transportation plastic parts, or

(III) Business machine plastic parts,

(iv) Airbrush application of coating to metal or plastic parts using no more than five gallons of coating per year,

(v) Use of air pollution control equipment to comply with subdivision (3) of this subsection, or

(vi) Application of specialty coatings listed in Table 20(s)-6a of this subsection.

(G) An owner or operator with total potential VOC emissions from all miscellaneous metal and plastic parts coating, including emissions from related cleaning, limited by permit or order of the commissioner to 1,666 pounds or less in any calendar month, shall not be subject to the requirements of subdivision (3) of this subsection, provided that the owner or operator operates in compliance with such permit or order.

(H) An owner or operator may use, in the aggregate, in any 12 consecutive months no more than 55 gallons of miscellaneous metal or plastic parts coating or coatings that exceed the VOC content limits or emission limits of subdivision (3) of this subsection provided the owner or operator maintains records of non-compliant coating use.

(I) An owner or operator operating pursuant to an exemption or exception set out in this subdivision shall maintain records sufficient to verify the applicability of the exemption or exception.

(8) Records.

(A) An owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the following information for each calendar month:

(i) Name and description of each coating and cleaning solvent,

(ii) VOC content of each coating and diluent, as applied, and the associated calculations,

(iii) VOC content of each coating or cleaning solvent, as supplied,

(iv) The amount of each coating and cleaning solvent:

(I) Purchased, or

(II) Used,

(v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,

(vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator, and

(vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(B) All records made pursuant to this subdivision shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(9) Compliance procedures.

(A) The VOC content limits of Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-

6a or 20(s)-6b apply to the volume of coating as applied, determined using the following equation:

VOC Content = (Ws - Ww-Wes)/(Vm - Vw – Ves)

Where:

Ws = weight of volatile compounds in grams

Ww = weight of water in grams

Wes = weight of exempt compounds in grams

Vm = volume of coating in liters

Vw = volume of water in liters

Ves = volume of exempt compounds in liters

(B) The VOC emission rate limits of Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10 apply to the mass of VOC emitted per volume of coating solids, as applied.

(C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the satisfaction of the commissioner and the Administrator that the manufacturer's formulation data are correct.

(D) For red, yellow or black automotive coatings, except touch-up and repair coatings, the applicable VOC content limit or emission rate shall be the limit of Table 20(s)-3 or 20(s)-9, as applicable, multiplied by 1.15.

(E) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.

(F) A miscellaneous metal or plastic parts coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a miscellaneous metal or plastic parts coating.

(10) Limitations on potential to emit.

(A) An owner or operator may submit a request to the commissioner for an order or permit to limit potential emissions from all miscellaneous metal and plastic parts coating at the premises to a monthly limit of 1,666 pounds of VOC; or

(B) An owner or operator issued a permit or order prior to January 1, 2013 pursuant to former section 22a-174-20(s)(7) of the Regulations of Connecticut State Agencies may:

(i) Continue after January 1, 2013 to conduct miscellaneous metal parts coating in compliance with such a permit or order,

(ii) Submit a request to the commissioner to modify the order or permit to include all miscellaneous metal and plastic parts coating at the premises in the monthly limit of 1,666 pounds of VOC, or

(iii) Submit a request to the commissioner to revoke the order or permit.

Table 20(s)-1
Metal Parts Coating VOC Content Limits

Coating Category	Air Dried		Baked	
	g VOC/ liter coating	lbs VOC/ gal coating	g VOC/ liter coating	lbs VOC/ gal coating
General one-component	340	2.8	280	2.3
General multi-component	340	2.8	280	2.3
Camouflage	420	3.5	420	3.5
Electric-insulating varnish	420	3.5	420	3.5
Etching filler	420	3.5	420	3.5
Extreme high-gloss	420	3.5	360	3.0
Extreme performance	420	3.5	360	3.0
Heat-resistant	420	3.5	360	3.0
High performance architectural	740	6.2	740	6.2
High temperature	420	3.5	420	3.5
Metallic	420	3.5	420	3.5
Mold-seal	420	3.5	420	3.5
Pan backing	420	3.5	420	3.5
Prefabricated architectural multi-component	420	3.5	280	2.3
Prefabricated architectural one-component	420	3.5	280	2.3
Pretreatment coating	420	3.5	420	3.5
Repair and touch-up	420	3.5	360	3.0
Silicone release	420	3.5	420	3.5
Solar-absorbent	420	3.5	360	3.0
Vacuum-metalizing	420	3.5	420	3.5
Drum coating, new,	340	2.8	340	2.8

exterior				
Drum coating, new, interior	420	3.5	420	3.5
Drum coating, reconditioned, exterior	420	3.5	420	3.5
Drum coating, reconditioned, interior	500	4.2	500	4.2

Table 20(s)-2
Plastic Parts Coating VOC Content Limits

Coating Category	g VOC/liter coating	lbs VOC/gal coating
General one-component	280	2.3
General multi-component	420	3.5
Electric dissipating coatings and shock-free coating	800	6.7
Extreme performance multi-component	420	3.5
Metallic	420	3.5
Mold-seal	760	6.3
Multi-colored coating	680	5.7
Optical coating	800	6.7
Vacuum-metalizing	800	6.7

Table 20(s)-3
Automotive-Transportation Plastic Parts Coating VOC Content Limits

Coating Category	g VOC/liter coating	lbs VOC/gal coating
I. High bake coatings – interior and exterior parts		
Flexible primer	540	4.5
Non-flexible primer	420	3.5
Base coat	520	4.3
Clear coat	480	4.0
Non-basecoat/clear coat	520	4.3
II. Low bake/air dried coatings – exterior parts		
Primer	580	4.8
Base coat	600	5.0

Clearcoat	540	4.5
Non-basecoat/clearcoat	600	5.0
III. Low bake/air dried coatings – interior parts	600	5.0
IV. Touchup and repair coating	620	5.2

Table 20(s)-4
Business Machine Plastic Parts Coating VOC Content Limits

Coating Category	**g VOC/liter coating**	**lbs VOC/gal coating**
I. Primers	350	2.9
II. Topcoat	350	2.9
III. Texture coat	350	2.9
IV. Fog coat	260	2.2
V. Touch up and repair	350	2.9

Table 20(s)-5
Motor Vehicle Materials VOC Content Limits

Coating Category	**g VOC/liter coating**	**lbs VOC/gal coating**
Motor vehicle cavity wax	650	5.4
Motor vehicle sealer	650	5.4
Motor vehicle deadener	650	5.4
Motor vehicle gasket/gasket sealing material	200	1.7
Motor vehicle underbody coating	650	5.4
Motor vehicle trunk interior coating	650	5.4
Motor vehicle bedliner coating	200	1.7
Motor vehicle lubricating wax/compound	700	5.8

Table 20(s)-6a
Aerospace Specialty Coating VOC Content Limits

Coating type	**g VOC/liter coating**
Ablative coating	600
Adhesion promoter	890

Adhesive bonding primers:	
Curedat250°Forbelow	850
Curedabove250°F	1030
Adhesives:	
Commercial interior adhesive	760
Cyanoacrylate adhesive	1,020
Fuel tank adhesive	620
Nonstructural adhesive	360
Rocket motor bonding adhesive	890
Rubber-based adhesive	850
Structural autoclavable adhesive	60
Structural nonautoclavable adhesive	850
Aerospace high-temperature coating	850
Antichafe coating	660
Bearing coating	620
Caulking and smoothing compounds	850
Chemical agent-resistant coating	550
Clear coating	720
Commercial exterior aerodynamic structure primer	650
Compatible substrate primer	780
Corrosion prevention compound	710
Cryogenic flexible primer	645
Cryoprotective coating	600
Dry lubricative material	880
Electric or radiation-effect coating	800
Electrostatic discharge and electromagnetic interference (EMI) coating	800
Elevated-temperature Skydrol-resistant commercial primer	740
Epoxy polyamide topcoat	660
Fire-resistant interior coating	800

Flexible primer	640
Flight-test coatings:	
Missile or single use aircraft	420
All other	840
Fuel-tank coating	720
Insulation covering	740
Intermediate release coating	750
Lacquer	830
Maskants:	
Bonding maskant	1,230
Critical use and line sealer maskant	1,020
Seal coat maskant	1,230
Metallized epoxy coating	740
Mold release	780
Optical anti-reflective coating	750
Part marking coating	850
Pretreatment coating	780
Rain erosion-resistant coating	850
Rocket motor nozzle coating	660
Scale inhibitor	880
Screen print ink	840
Sealants:	
Extrudable/rollable/brushable sealant	280
Sprayable sealant	600
Silicone insulation material	850
Solid film lubricant	880
Specialized function coating	890
Temporary protective coating	320
Thermal control coating	800
Wet fastener installation coating	675
Wing coating	850

Table 20(s)-6b
Aerospace Coating VOC Content Limits

Coating type	g VOC/liter coating
Primer – general aviation rework facilities	540
Exterior primer – large commercial aircraft components	650
Exterior primer – fully assembled, large commercial aircraft	650
Primer	350
Topcoat	420
Topcoat – general aviation rework facilities	540
Self-priming topcoat	420
Self-priming topcoat – general aviation rework facilities	540
Type I chemical milling maskant	622
Type II chemical milling maskant	160

Table 20(s)-7
Metal Parts Coating VOC Emission Rate Limits

	Air Dried		Baked	
Coating Category	**g VOC/ liter solids**	**lb VOC/ gal/ solids**	**g VOC/ liter solids**	**lb VOC/ solids**
General one-component	540	4.52	400	3.35
General multi-component	540	4.52	400	3.35
Camouflage	800	6.67	800	6.67
Electric-insulating varnish	800	6.67	800	6.67
Etching filler	800	6.67	800	6.67
Extreme high-gloss	800	6.67	610	5.06
Extreme performance	800	6.67	610	5.06
Heat-resistant	800	6.67	610	5.06

High performance architectural	4560	38	4560	38
High temperature	800	6.67	800	6.67
Metallic	800	6.67	800	6.67
Mold-seal	800	6.67	800	6.67
Pan backing	800	6.67	800	6.67
Prefabricated architectural multi-component	800	6.67	400	3.35
Prefabricated architectural one-component	800	6.67	400	3.35
Pretreatment coating	800	6.67	800	6.67
Silicone release	800	6.67	800	6.67
Solar-absorbent	800	6.67	610	5.06
Vacuum-metalizing	800	6.67	800	6.67
Drum coating, new, exterior	540	4.52	540	4.52
Drum coating, new, interior	800	6.67	800	6.67
Drum coating, reconditioned, exterior	800	6.67	800	6.67
Drum coating reconditioned, interior	1170	9.78	1170	9.78

Table 20(s)-8
Plastic Parts Coating VOC Emission Rate Limits

Coating Category	**g VOC/liter solids**	**lbs VOC/gal solids**
General one-component	400	3.35
General multi-component	800	6.67
Electric dissipating coatings and shock-free coatings	8960	74.7
Extreme performance multi-component	800	6.67
Metallic	800	6.67

Mold-seal	5240	43.7
Multi-colored coatings	3040	25.3
Optical coatings	8960	74.7
Vacuum-metalizing	8960	74.7

Table 20(s)-9
Automotive-Transportation Plastic Parts Coating VOC Emission Rate Limits

Coating Category	g VOC/liter solids	lbs VOC/gal solids
I. High bake coatings – interior and exterior parts		
Flexible primer	1390	11.58
Non-flexible primer	800	6.67
Basecoat	1240	10.34
Clearcoat	1050	8.76
Non-basecoat/clearcoat	1240	10.34
II. Low bake/air dried coatings – exterior parts		
Primer	1660	13.8
Basecoat	1870	15.59
Clearcoat	1390	11.58
Non-basecoat/clearcoat	1870	15.59
III. Low bake/air dried coatings – interior parts	1870	15.59
IV. Touch-up and repair coating	2130	17.72

Table 20(s)-10
Business Machine Plastic Parts Coating VOC Emission Rate Limits

Coating Category	g VOC/liter solids	lbs VOC/gal solids
I. Primers	570	4.80
II. Topcoat	570	4.80
III. Texture coat	570	4.80
IV. Fog coat	380	3.14
V. Touchup and repair	570	4.80

(t) **Manufacture of synthesized pharmaceutical products.**

(1) Definitions for the purpose of this subsection:

"Condenser" means a device which cools a gas stream to a temperature which removes

specific "volatile organic compounds" by condensation;

"Control system" means any number of control devices, including condensers, which are designed and operated to reduce the quantity of "volatile organic compounds" emitted to the atmosphere;

"Pharmaceutical product and intermediate" means any drug or chemical substance or any intermediate used to make a drug or chemical substance which is intended to be administered to a person or animal to prevent or cure disease or otherwise enhance physical or mental welfare;

"Process equipment exhaust system" means a device for collecting or directing out of the work area, air laden with fugitive "emissions" of "volatile organic compounds" from reactor openings, centrifuge openings, and other vessel openings for the purpose of protecting workers from excessive "volatile organic compounds" exposure.

"Reactor" means a vat or vessel, which may be jacketed to permit temperature control, designed to contain chemical reactions;

"Separation operation" means a process that separates a mixture of compounds and solvents into two or more components. Specific mechanisms include extraction, centrifugation, filtration, decantion, and crystallization;

"Synthesized pharmaceutical manufacturing" means manufacture of "pharmaceutical products and intermediates" by chemical syntheses. The production and recovery of materials produced via fermentation, extraction of organic chemicals from vegetative materials or animal tissues, and formulation and packaging of the product are not covered by this regulation.

(2) The owner or "operator" of a synthesized pharmaceutical manufacturing facility shall control the "volatile organic compound" "emissions" from all operations including but not limited to all reactors, distillation operations, crystallizers, extraction equipment, centrifuges, decanters, and vacuum dryers. Surface condensers or equivalent controls shall be used, provided that:

(A) If surface condensers are used, the outlet gas temperature the condenser must not exceed:

(i) -25°C when condensing "volatile organic compounds" having a vapor pressure of 40.0 kPa (5.8 psi) or greater at 20°C,

(ii) -15°C when condensing "volatile organic compounds" having a vapor pressure of 20.0 kPa (2.9 psi) or greater at 20°C,

(iii) 0°C when condensing "volatile organic compounds" having a vapor pressure of 10.0 kPa (1.5 psi) or greater at 20°C,

(iv) 10°C when condensing "volatile organic compounds" having a vapor pressure of 7.0 kPa (1.0 psi) or greater at 20°C, or

(v) 25°C when condensing "volatile organic compounds" having a vapor pressure of 3.50 kPa (0.5 psi) or greater at 20°C, or

(B) If equivalent controls are used, the "volatile organic compound" "emissions" must be reduced over each hour by at least as much as they would be by using a surface condenser

which meets the requirements of subparagraph (A) of this subdivision.

(3) The owner or "operator" of a synthesized pharmaceutical manufacturing facility subject to this regulation shall reduce the actual "volatile organic compound" "emissions" from each air dryer and each process equipment exhaust system:

(A) by at least 90 percent over each hour if actual "emissions" are 150 kg/day, (330 lb/day) or more of "volatile organic compounds"; or,

(B) to 15.0 kg/day (33.3 lb/day) or less if actual "emissions" are less than 150 kg/day (330 lb/day) of "volatile organic compounds."

(4) The owner or "operator" of a synthesized pharmaceutical manufacturing facility subject to this regulation shall:

(A) Provide a vapor balance system or equivalent control so that the amount of "volatile organic compounds" released to the "ambient air" is less than 80 milligrams per liter of liquid loaded per delivery from truck or railcar deliveries to storage "tanks" with capacities greater than 7,500 liters (2,000 gallons) that store "volatile organic compounds" with vapor pressures of 28.0 kPa (4.1 psi) or greater at 20°C; and,

(B) Install pressure/vacuum conservation vents on all storage "tanks" that store "volatile organic compounds" with vapor pressures of 10.0 kPa (1.5 psi) or greater at 20°C, unless a more effective control system is used which meets state fire marshal standards.

(5) The owner or "operator" of a synthesized pharmaceutical manufacturing facility subject to this regulation shall enclose all centrifuges, rotary vacuum filters, and other filters having an exposed liquid surface, where liquid contains "volatile organic compounds" and has a vapor pressure of 3.50 kPa (0.5 psi) or more at 20°C.

(6) The owner or "operator" of a synthesized pharmaceutical manufacturing facility subject to this regulation shall install covers on all in-process "tanks" containing a "volatile organic compound" at any time. These covers must remain closed, except when production, sampling, maintenance, or inspection procedures require "operator" access.

(7) The owner or "operator" of a synthesized pharmaceutical manufacturing facility subject to this regulation shall repair all leaks from which a liquid, containing "volatile organic compounds" can be observed running or dripping immediately or as subject to the conditions of Sec. 22a-174-7.

(8) The provisions of this subsection apply to all "synthesized pharmaceutical manufacturing" equipment which has potential emissions of fifteen (15) pounds per day or more in any one day. After October 1, 1989 any "synthesized pharmaceutical manufacturing" equipment which is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection regardless of the daily actual emissions. Notwithstanding the above, the owner or "operator" of any piece of equipment that was not required to meet control requirements by this subsection prior to October 1, 1989, shall have until October 1, 1990, to achieve final compliance with the control requirements of this subsection for that piece of equipment.

(u) **Manufacture of pneumatic rubber tires.**

(1) For the purpose of this subsection;

"Bead dipping" means the dipping of an assembled tire bead into a solvent based cement;

"Green tires" means assembled tires before molding and curing have occurred.

"Green tire spraying" means the spraying of green tires, both inside and outside, with release compounds which help remove air from the tire during molding and prevent the tire from sticking to the mold after curing.

"Passenger type tire" means agricultural, airplane, industrial, mobile home, light and medium duty truck, and passenger vehicle tires with a bead diameter up to 20.0 inches and cross section dimension up to 12.8 inches.

"Pneumatic rubber tire manufacture" means the production of pneumatic rubber, passenger type tire on a mass production basis;

"Tread end cementing" means the application of a solvent based cement to the tire tread ends.

"Undertread cementing" means the application of a solvent based cement to the underside of a tire tread;

"Water based sprays" means release compounds, sprayed on the inside and outside of green tires, in which solids, water, and emulsifiers have been substituted for organic solvents so that the volatile organic compound content is less than four percent by weight for an inside spray and less than twelve percent by weight for an outside spray.

(2) The owner or "operator" of any undertread cementing, tread end cementing, or bead dipping operation shall:

(A) Install and operate a capture system, designed to achieve maximum reasonable capture, of at least 85 percent by weight of "volatile organic compounds" emitted, from all undertread cementing, tread end cementing and bead dipping operations. Maximum reasonable capture shall be consistent with the following documents:

(i) Industrial ventilation, a manual of recommended practices, 14th edition, American Federation of Industrial Hygienists.

(ii) Recommended industrial ventilation guidelines, U.S. Department of Health, Education and Welfare, National Institute of Occupational Safety and Health.

(B) Install and operate a control device that meets the requirements of one of the following:

(i) A carbon adsorption system designed and operated in a manner such that there is at least a 90.0 percent removal of "volatile organic compounds" by weight from the gases ducted to the control device for each adsorption cycle or 24 hours whichever is shorter; or,

(ii) An incineration system that oxidizes at least 90.0 percent per hour of the nonmethane "volatile organic compounds" (measured as total combustible carbon) which enter the "incinerator" to carbon dioxide and water.

(iii) An alternative "volatile organic compounds" "emission" reduction system certified by the owner or "operator" to have at least a 90.0 percent reduction efficiency per hour, measured across the control system, and has been approved by the "Commissioner."

(3) The owner or "operator" of any green tire spraying operation must implement one of the following means of reducing "volatile organic compound" "emissions":

(A) Substitute water-based sprays for the normal solvent-based mold release compound; or,

(B) Install a capture system designed and operated in a manner that will capture and transfer at least 90.0 percent of the "volatile organic compounds" emitted by the green tire spraying operation to a control device, and, in addition, install and operate a control device that meets the requirements of one of the following:

(i) a carbon adsorption system designed and operated in a manner such that there is at least 90.0 percent removal of "volatile organic compounds" by weight over each cycle from the gases ducted to the control device; or,

(ii) An incineration system that oxidizes at least 90.0 percent of the nonmethane "volatile organic compounds" (measured as total combustible carbon) per hour to carbon dioxide and water; or

(iii) an alternative "volatile organic compound" "emission" reduction system certified by the owner or "operator" to have at least a 90.0 percent reduction efficiency, per hour as measured across the control system, that has been approved by the "Commissioner."

(4) The provisions of this regulation do not apply to the production of specialty tires for antique or other vehicles when produced on an irregular basis or with short production runs. This exemption applies only to tires produced on equipment separate from normal production lines for passenger type tires.

(v) **Graphic arts rotogravures and flexography.**

(1) For the purpose of this subsection:

"Flexographic printing" means the application of words, designs or pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

"Packaging rotogravure printing" means rotogravure printing upon paper, paperboard, metal foil, plastic film or other substrates, which are, in subsequent operations, formed into packaging products or labels for articles to be sold.

"Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements or other types of printed materials.

"Roll printing" means the application of words, designs or pictures to a substrate usually by means of a series of hard rubber or steel rolls each with only partial coverage.

"Rotogravure printing" means the application of words, designs or pictures to a substrate by means of a roll printing technique which involves intaglio or recessed image areas in the form of cells or indentations.

(2) The owner or operator of a packaging rotogravure, publication rotogravure or flexographic printing facility subject to this regulation and employing solvent containing ink shall not cause, or permit the discharge into the atmosphere, of any volatile organic compounds unless:

(A) The volatile fraction of each ink, as it is applied to the substrate, contains 25.0 percent by volume or less of volatile organic compounds and 75.0 percent by volume or more of

water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time; or

(B) Each ink as it is applied to the substrate, less water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, contains 60.0 percent by volume or more nonvolatile material; or

(C) The owner or operator installs and operates:

(i) A carbon adsorption system that reduces the volatile organic emissions from the capture system by at least 90.0 percent by weight over the adsorption cycle or 24 hours whichever is shorter,

(ii) An incineration system provided that 90.0 percent of the nonmethane volatile organic compounds (measured as total combustible carbon) that enter the incinerator per hour are oxidized to carbon dioxide and water, or

(iii) A system demonstrated to have control efficiency equivalent to or greater than the above required 90% (ninety percent) and approved by the commissioner by permit or order.

(3) A capture system shall be used in conjunction with the emission control systems in subdivision (2)(C) of this subsection. The design and operation of a capture system shall be consistent with good engineering practice, and shall provide for an overall reduction in volatile organic compound emissions per hour from each printing press of at least:

(A) 75.0 percent where a publication rotogravure process is employed;

(B) 65.0 percent where a packaging rotogravure process is employed; or,

(C) 60.0 percent where a flexographic printing process is employed.

(4) The provisions of this subsection apply to any printing line that has actual emissions of forty (40) pounds per day or more in any one day or to a premises which has potential emissions from all printing operations of fifty (50) tons or more per calendar year in an area designated as a serious nonattainment area for ozone or twenty-five (25) tons or more per calendar year in an area designated as a severe nonattainment area for ozone. Any printing line that is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection regardless of the daily actual emissions.

Notwithstanding the foregoing provisions of this subdivision, the owner or operator of any piece of equipment that was not required to meet control requirements by this subsection prior to November 15, 1992 shall comply with the control requirements of this subsection for that piece of equipment no later than May 31, 1995.

(5) In lieu of requiring an owner or operator to implement reasonably available control technology pursuant to this subsection, the commissioner may, by permit or order, limit potential emissions of volatile organic compounds to:

(A) less than fifty (50) tons per calendar year in a serious nonattainment area for ozone; or

(B) less than twenty-five (25) tons per calendar year in a severe nonattainment area for ozone.

The Commissioner may also limit in such permit or order actual emissions of volatile organic compounds from any printing line at such premises to less than forty (40) pounds

per day.

(6) The commissioner shall not issue an order or permit limiting emissions of volatile organic compounds as provided in subdivision (5) of this subsection unless the owner or operator demonstrates, in writing, that actual emissions of volatile organic compounds, in each calendar year after December 31, 1989, did not exceed: fifty (50) tons per calendar year in a serious nonattainment area for ozone; or (b) twenty-five (25) tons per calendar year in a severe nonattainment area for ozone.

(7) To demonstrate that actual volatile organic compound emissions did not exceed the emission limitations described in subdivision (6) of this subsection, such owner or operator shall submit to the commissioner written documentation of the actual emissions of volatile organic compounds from all printing operations at such premises for every calendar year, or portion thereof, from December 31, 1989 through the calendar year in which such information is submitted. Such owner or operator shall also submit to the commissioner the information specified in subsection (aa) of this section for every calendar year, or portion thereof, from December 31, 1989 through the calendar year in which such information is submitted. The owner or operator shall also include a certification with such information prepared and signed as required by section 22a-174-2a(a)(5) of the Regulations of Connecticut State Agencies.

(w) **Dry cleaning facilities.**

(1) For the purpose of this subsection:

"Dry cleaning facility" means a facility engaged in the cleaning of fabrics in an essentially nonaqueous solvent by means of one or more washes in solvent, extraction of solvent by spinning, and drying by tumbling in an airstream. The facility includes but is not limited to any washer, dryer, filter and purification systems, waste disposal systems, holding "tanks," pumps, and attendant piping and valves. Dry cleaning facility includes those which are coin-operated and intended for general public use.

(2) The owner or "operator" of a dry cleaning facility which uses perchloroethylene shall;

(A) vent all dryer exhausts through carbon adsorption systems or equally effective control devices and maintain "emissions" of "volatile organic compounds" at all times no greater than 100 ppmv as measured before dilution.

(B) maintain all system components so as to prevent the leaking of liquid "volatile organic compounds" and where applicable, prevent perceptible vapor losses from gaskets, seals, ducts and related equipment;

(C) treat all diatomaceous earth filters so that the residue contains no greater than 25 Kg of volatile organic "emissions" per 100 Kg of wet waste material;

(D) reduce the "volatile organic compounds" from all solvent stills to no greater than 60 Kg per 100 Kg of wet waste material; and

(E) drain all filtration cartridges in the filter housing for at least 24 hours before discarding the cartridges such that volatile organic compounds are not emitted to the atmosphere.

(3) The provisions of subparagraph (2) (A) shall not apply to dry cleaning facilities which lack adequate space or sufficient steam capacity to accommodate adsorber systems, or any facility which could demonstrate economic hardship due to compliance with this subsection. An exemption pursuant to this subsection shall be approved at the discretion of the "Commissioner" and the administrator after demonstration by the owner or "operator" of applicability to the conditions of this exemption.

(4) Compliance with this section shall be determined by:

(A) a visual inspection, for subparagraphs (2) (B) and (2) (E) above; and

(B) a test consistent with EPA Guideline series document, "Measurement of Volatile Organic Compounds," EPA-450/2-78-041 or use of a system which has been demonstrated to meet the "emission" limits for subparagraph (2) (A) above; and

(C) Use of American Society for Testing and Materials (ASTM) Method D-322-67 for subparagraphs (2) (C) and (2) (D) above with the following modifications: a sample of the wet waste to be disposed of is taken from each of three different batches of waste materials; each of the three samples is analyzed using ASTM Method D322-67 modified by using a Bidwell-Sterling type distillation trap in place of a gasoline dilution trap and by adding a known sample mass to the sample flask instead of a known sample volume so as to obtain a percent by weight of perchloroethylene in the waste material.

(x) **Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical & Polymer Manufacturing Equipment.**

(1) Definitions.

For purposes of this subsection:

"Canned pumps" means those pumps not having an externally activated shaft penetrating the pump housing.

"Fugitive emission source" means each pump, valve, safety/relief valve, open-ended valve, flange or other connector, seals, compressor, or sampling system;

"Gaseous VOCs" means VOCs which are or will become entirely gaseous before reaching the ambient air;

"Hydrocarbon detector" means a portable hydrocarbon analyzer for identifying leaks of VOC and meets the criteria given in EPA Reference Method 21;

"In light liquid service" means that a component is in contact with a fluid containing 10% or greater light liquid by weight.

"In VOC service" means that a component is in contact with a fluid containing 10% or greater VOC by weight.

"Light liquids" means a fluid whose vapor pressure is greater than 0.044 psia (0.3 kilopascals) at 20° C;

"Quarter" means a consecutive three month period beginning in either January, April, July or October;

"Synthetic Organic Chemical and Polymer Manufacturing" means the industry that produces, as intermediates or final products methyl tert-butyl ether (MTBE), polyethylene, polypropylene, polystyrene, one or more of the chemicals listed in 40 CFR Part 60.489 or

such other industries as the "Commissioner" may determine to be sources of significant VOC leakage;

(2) Applicability.

Except as provided in subdivision (x) (13) of section 22a-174-20, on or after the effective date of this subsection, the provisions of subsection 22a-174-20 (x) apply to synthetic organic chemical and polymer manufacturing facilities.

(3) Leak prevention.

The owner or operator of a synthetic organic chemical or polymer manufacturing facility shall not cause, allow, or permit any evidence of leakage as determined through the use of test methods required in subdivision (x) (8) of section 22a-174-20.

(4) Pump repair.

Except as provided in subparagraph (x) (13) (F) of section 22a-174-20, the owner or operator shall visually inspect every pump in light liquid service each week. If indications of liquid leakage are found, the pump shall be repaired within fifteen (15) days after detection except as provided in subdivision (x) (12) of section 22a-174-20. Record keeping under this subsection shall be required only for those pumps found leaking.

(5) Monitoring.

(A) Except as provided in subdivisions (x) (9) and (x) (13) of section 22a-174-20, the owner or operator shall monitor each pump, valve, compressor, and safety/relief valve in gas/vapor service or in light liquid service for gaseous leaks at least once each quarter. The owner or operator shall notify the Department's Air Compliance Unit of such monitoring at least ten (10) days prior to the scheduled monitoring. If there is evidence of leakage, the owner or operator shall repair the component within fifteen (15) days of detection, except as provided in subdivision (x) (12) of section 22a-174-20. The monitoring procedure shall be in accordance with EPA Method 21.

(B) Safety/relief valves shall be monitored after each over-pressure relief to ensure the valve has been properly reseated so that a concentration of volatile organic compounds is less than 1000 ppm. The monitoring procedure shall be in accordance with EPA Method 21.

(6) Requirements for an open-ended valve.

The owner or operator shall install on each open-ended valve or line a cap, a blind flange, a plug, or a second closed valve which must remain attached to seal the open ended valve at all times except during operations requiring process fluid flow through the open line except in circumstances, as approved by the "Commissioner" by permit or order, where this may cause a safety problem.

(7) Leak detection.

The owner or operator of any fugitive emission source which appears to be leaking on the basis of sight, smell, or sound shall repair such leak within fifteen (15) days after detection except as provided in subdivision (x) (10) of section 22a-174-20.

(8) Test methods.

The owner or operator of the source shall either use:

(A) a soap solution to detect gaseous VOCs leaks at all points of potential leakage where this test method is determined to be valid by the Commissioner or his representative and where any bubble formation during a three (3) minute observation period is deemed evidence of leakage; or

(B) a hydrocarbon detector test to detect gaseous VOCs and light liquid leaks where any measured concentration in excess of ten thousand (10,000) ppm is deemed to be evidence of leakage.

(9) Exemption from Quarterly Testing.

If after four consecutive quarters of monitoring less than two percent of the valves in gas/vapor or light liquid service show evidence of leakage then the owner or operator may monitor the valves for gaseous leaks only once a year during the third or fourth quarter. If the number of valves showing evidence of leakage remains at two percent or less, then these valves need only be monitored once a year during the third or fourth quarter. However, if more than two percent of these valves show evidence of leakage, they shall be monitored every quarter until four consecutive quarters are monitored which have no more than two percent of these valves showing evidence of leakage.

(10) Delaying repairs.

A request to delay a repair of a fugitive emission source until the next turnaround if the repair is infeasible for technical or safety reasons without a complete or partial shutdown of the process unit can be made to the Commissioner.

(11) Record keeping.

The owner or operator of the facility shall maintain for two (2) years records which will be available to Department personnel on request and shall include:

(A) identification of the source being inspected or monitored;

(B) dates of inspection or monitoring;

(C) result of inspection or monitoring;

(D) what action was taken if a leak was detected;

(E) type of repair made and date of repair;

(F) if the repair was delayed, an explanation as to why; and

(G) test method.

(12) Notice and retests.

Any evidence of leakage as described in this subsection shall be treated as a malfunction of control equipment or methods as described in section 22a-174-7 of the Regulations of Connecticut State Agencies. A retest in accordance with the provisions of subdivision (8) of this subsection shall be performed not more than two business days after all required repairs are complete.

(13) Exemptions.

(A) The owner or operator of any facility exempted under 40 CFR Part 60.480 (d) shall be exempt from subsection (x) of section 22a-174-20.

(B) When a fugitive emission source is unsafe to monitor because of extreme temperatures, pressure, or because it is more than 12 feet above a permanent support surface,

or other reasons, the owner or operator may request a waiver from quarterly testing from the Commissioner who may allow monitoring less frequently than each quarter provided the source is monitored once a year.

(C) No monitoring will be required under conditions where no leakage can occur such as fugitive emission sources under vacuum. If such tests are run, leak free conditions will not be counted toward reductions in testing frequency.

(D) Safety relief valves that are isolated from the process by a frangible disc or rupture disc are exempted from the quarterly monitoring requirements of subparagraph (x) (5) (A) of section 22a-174-20 provided they are monitored on an annual basis.

(E) Canned pumps which have demonstrated compliance with 40 CFR Part 60.482-2 (e) (2) may be exempted from the requirements of subparagraph (x) (5) (A) of section 22a-174-20 provided they meet the requirements of 40 CFR Part 60.482-2 (e) (3).

(F) Canned pumps which have demonstrated compliance with 40 CFR Part 60.482-2 (e) (2) are exempted from the provisions of subdivision (x) (4) of section 22a-174-20 provided they meet the requirements of 40 CFR Part 60.482-2 (e) (3).

(y) **Manufacture of Polystyrene Resins.**

(1) Definitions.

For purposes of this subsection:

"Continuous polystyrene resin manufacturing facility" means a facility that utilizes a continuous, co-polymerization process for the manufacture of polystyrene resin from styrene and other monomers and/or polymers.

"Styrene condenser vent stream" means the exhaust stream from the vacuum system on the vacuum devolatilizer condenser.

"Styrene recovery unit condenser vent stream" means the exhaust stream from a vacuum system on a styrene recovery system.

(2) Emission Standards.

On or after the effective date of this subsection the owner or operator of a continuous polystyrene resin manufacturing facility subject to this subsection shall not cause or permit the discharge of any volatile organic compounds in excess of 0.12 kg of VOC/1000 kg of product (0.24 lbs. of VOC/2000 lbs. of product) over any one (1) hour period in total from:

(A) the styrene condenser vent stream; and

(B) the styrene recovery unit condenser vent stream.

(3) Control Methods.

The owner or operator of a continuous polystyrene resin manufacturing facility subject to this subsection shall achieve the emission limitation by the use of:

(A) surface condensers; or

(B) a system demonstrated to have a control efficiency equivalent to or greater than the above, and approved by the Commissioner.

(4) Testing.

The owner or operator of the source shall determine compliance with this subsection by means of an emissions test made in accordance with the methods in subdivision (y) (6) of

section 22a-174-20 and which has been approved by the Commissioner under the provisions of section 22a-174-5.

(5) Test Conditions.

The production rate during emission testing shall be determined from the current plant production records. If the plant production records show minor variation in the rate of polymer production, then an average or typical value may be used by the "Commissioner" when approving the test method under section 22a-174-5.

(6) Test Methods.

The emission rate for total volatile organic compounds measured as organic carbon per quantity of polystyrene produced shall be determined using either of the methods described in subparagraphs (y) (6) (A) or (y) (6) (B) of section 22a-174-20 as follows:

(A)

$$M = \frac{(C)\ (Qsd)\ (0.50 \times 10^{-3})}{S}$$

Where:

M = Emission of volatile organic compound emissions per quantity of product produced (Kg VOC/1000 Kg product).

C = Total gaseous non-methane organic concentration of the effluent (ppm carbon equivalent) as measured by method 25 as found at Appendix A of Title 40 Code of Federal Regulations Part 60.

Qsd = Dry volumetric stack gas flow rate corrected to standard conditions (dcsm/hr).

S = Production rate during the emission test (Kg/hr).

(B)

$$M = \frac{(2.494 \times 10^{-3})\ (\ \ i = E^{n}\ 1\ Ci\ Wi\ )\ (QS)}{S}$$

Where:

M = Emission of volatile organic compound emissions per quantity of product produced (Kg VOC/1000 Kg product).

Ci = Concentration of sample component i, (ppm) as measured by method 18 as found at Appendix A of Title 40 Code of Federal Regulations Part 60.

Wi = Molecular weight of sample component i, (g VOC/gmole VOC).

Qs = Volumetric stack gas flow rate corrected to standard conditions (scm/min).

S = Production rate during the emission tests (Kg/hr).

(7) Record keeping.

(A) The owner or operator of the source shall monitor the operating parameters of the air pollution control equipment on the polystyrene production operation. The parameters monitored shall include, but not be limited to, the outlet temperature of the styrene condenser vent and the styrene recovery unit condenser vent or the outlet temperature of all condensers used to control these exhaust streams. The Commissioner may allow periodic monitoring

if continuous monitoring is technologically or economically infeasible. The Commissioner may require additional monitoring as needed.

(B) The owner or operator of the source shall maintain monitoring records for a period of two years and shall make the records available to Department personnel upon request.

(z) Reserved.

(aa) **Record keeping requirements and test methods.**

(1) The owner or "operator" of any premise subject to the provisions of subsections (m) through (r) inclusive and subsection (v) of section 22a-174-20 shall maintain daily records of all coatings and diluents used. Such records shall be kept for each individual machine, operation or coating line. The records must contain the information required below.

(A) description of the coating including the coating name and the coating density in pounds per gallon;

(B) "volatile organic compound" content by weight;

(C) water and exempt volatile organic compound content by weight;

(D) non-volatile content by volume and by weight;

(E) amount of each coating used in gallons;

(F) total amount of diluent used for each coating in pounds and in gallons.

(2) Any owner or "operator" may request sample forms from the "Commissioner."

(3) The owner or "operator" of any premise subject to the provisions of subdivision 22a-174-20 (b) (1) shall maintain the following records for the premise:

(A) daily throughput of all volatile organic compounds having a vapor pressure of 1.5 pounds per square inch or greater under actual storage conditions; and

(B) records of both scheduled and unscheduled maintenance of the "vapor recovery system."

(4) The owner or "operator" of any premise subject to the provisions of subdivision 22a-174-20 (b) (4) shall maintain the following records for the premise:

(A) daily throughput of all volatile organic compounds having a vapor pressure of 1.5 pounds per square inch or greater under actual storage conditions; and

(B) records of both scheduled and unscheduled maintenance of the "vapor balance system."

(5) The owner or "operator" of any premise subject to the provisions of subdivisions 22a-174-20 (b) (5) or (b) (6) shall maintain the following records for the premise:

(A) daily throughput of gasoline; and

(B) records of both scheduled and unscheduled maintenance of the "vapor balance system" and other system components.

(6) For determining the volatile content of surface coatings, the owner or "operator" of any premise subject to this section shall use either Reference Method 24 or 24A as found at Appendix A of Title 40 Code of Federal Regulations Part 60. When determining the volatile fraction of a coating using American Society for Testing and Materials method D-2369, the bake time must be one (1) hour.

(7) For determining the "volatile organic compound" emission control efficiency, the

owner or "operator" of any premise subject to this section shall determine the removal efficiency of the control device by using reference methods 18, 25, 25A or 25B as found at Appendix A of Title 40 Code of Federal Regulations Part 60. The owner or "operator" of any premise subject to this section shall determine capture efficiency using a test method recommended or approved by the "administrator."

(8) The owner or "operator" of any "major stationary source" subject to this section shall continuously monitor and record the following:

(A) for thermal incinerators, the exhaust gas temperature.

(B) For catalytic incinerators, the exhaust gas temperature and the temperature rise across the catalyst bed.

(C) For condensers or refrigeration systems, the inlet temperature of the cooling medium and the exhaust gas temperature.

(D) For carbon absorbers, the pressure drop across the absorber and the hydrocarbon level needed to determine breakthrough.

(9) The owner or "operator" of any "stationary source" subject to this section which uses a catalytic incinerator to control the emission of "volatile organic compounds" shall record the date of the each change of the catalyst in the bed.

(10) Copies of all records and reports required by subsection 22a-174-20 (aa) must be kept at the source for a minimum of two years.

(bb) **Compliance methods.**

(1) The owner or "operator" of a "stationary source" subject to subsections (m) through (s) of Section 22a-174-20 inclusive, shall achieve the "emission" limit under the appropriate paragraph by:

(A) The application of low solvent content coating technology for each coating used; or

(B) Incineration, provided that a minimum of ninety (90) percent of the non-methane "volatile organic compounds" (measured as total combustible carbon) which enter the "incinerator" are oxidized to carbon dioxide and water per hour and where the overall required efficiency is determined pursuant to subdivision (bb) (3) or (bb) (4); or (C) A system demonstrated to have an hourly control efficiency equivalent to or greater than the above and approved by the "Commissioner" by permit or order.

(2) A capture system used in conjunction with the "emission" control systems in subparagraphs (bb) (1) (B) and (bb) (1) (C) of Section 22a-174-20 must be capable of collecting a minimum of ninety (90) percent of the "volatile organic compound" "emissions" from the "process source."

(3) In cases where control technology is the selected compliance option, the minimum overall reduction of volatile organic compounds, required to demonstrate compliance with subsections (m) through (s) of Section 22a-174-20 inclusive, shall be the least stringent of the following:

(A) at least ninety-five (95) percent; or

(B) the amount necessary to reduce the hourly actual "volatile organic compound" emissions to less than the hourly allowable "volatile organic compound" emissions as

determined in subdivision (6) of this subsection.

(4) If either the minimum capture system efficiency requirement or the minimum control efficiency requirement, specified above, cannot be reasonably demonstrated, the Commissioner may accept an averaged system efficiency provided the net emission rate is equal to or less than the emission rate which would result through compliance with the control system and capture system minimum efficiencies required by subdivisions (bb) (1) and (bb) (2) of Section 22a-174-20.

(5) Compliance proposals pursuant to subsection (cc) of Section 22a-174-20, alternative emission reduction plans, must utilize the calculation methods described by subdivision (bb) (3) of Section 22a-174-20 concerning solids-applied basis computations and the system efficiency requirements of subsections (bb) (1) (B) and (bb) (2) of Section 22a-174-20. For purposes of subsection (cc) of Section 22a-174-20, "allowable emissions" are based on the solids-applied basis emissions rather than the minimum required system efficiency. If the emissions after the application of control equipment, represent a greater net reduction of volatile organic compound emissions, the increased reduction may be used as a credit to offset excess emissions from non-conforming sources at the premise.

(6) To calculate hourly allowable "volatile organic compound" (VOC) emissions under subdivision (3) of this subsection, follow the steps in subparagraphs (A) through (D) below.

(A) Determine the discharge limit (in pounds of VOC per gallon of coating) for the surface coating operation in subsections 22a-174-20 (m) through (s).

(B) Locate the discharge limit in the left hand column of Table 20 (bb)-1 below.

(C) Locate the corresponding emission limit (in pounds of VOC per gallon of solids) from the right hand column of Table 20 (bb)-1 below.

(D) Multiply the emission limit (in pounds of VOC per gallon of solids) by the hourly volume of solids applied (in gallons per hour) during the subject surface coating operation to yield the hourly allowable VOC emissions (in pounds per hour).

Table 20 (bb)-1
Emission Factors for Volatile Organic Compounds for Solids Applied

pounds of VOC gallon of coating	pounds of VOC gallon of solids
1.7	2.21
2.6	4.02
2.8	4.52
2.9	4.79
3.0	5.07
3.5	6.68
3.7	7.44
3.8	7.85
4.2	9.79
4.3	10.34

5.5	21.74

(cc) **Alternative emission reductions.**

(1) The owner or "operator" of a "stationary source" subject to the provisions of subsections (m) through (v) inclusive and (ee) may submit for the consideration of the "Commissioner" an alternative "emission" reduction plan which would achieve the same net "emission" reduction as the owner or "operator" would achieve by having each "emission" source comply with the prescribed "emission limitations" provided in these regulations. Approval of the alternative plan is discretionary with the "Commissioner," but at a minimum, the owner or "operator" of the "stationary source" must demonstrate that:

(A) by means of an approved material balance or acceptable "emission" test, sufficient reductions in "volatile organic compound" "emissions" will be obtained by controlling other existing emission sources of similar "volatile organic compounds" within the "stationary source" to the extent necessary to compensate for all excess "emissions" which result from one or more emission sources not achieving the prescribed "emission limitation." This demonstration must be submitted in writing and must include:

(i) A description of the emission source or "sources" which will not comply with the prescribed "emission limitations";

(ii) Pounds per hour of "volatile organic compounds" emitted which are in excess of permissible "emissions" for each emission source;

(iii) A description of each emission source and the related control systems if any, for those emission sources within the "stationary source" where "emissions" will be decreased to compensate for excess "emissions" from each emission source;

(iv) Pounds per hour of "volatile organic compounds", for each emission source both before and after the improvement or installation of any applicable control system, or any physical or operational changes at the facility to reduce "emissions" and the date on which these reductions will be achieved; and

(v) A description of the procedures and methods used to determine the "emissions" of "volatile organic compounds"; and

(B) The alternative emission reduction plan does not include decreases in "emissions" resulting from requirements of other applicable "air pollution" regulations. The alternative emission reduction plan may include decreases in "emissions" accomplished through installation or improvement of a control system or through physical or operational changes at the "stationary source" such as increased transfer efficiencies;

(C) The alternative emission reduction plan does not include provisions for the trade off of any "volatile organic compound" such as benzene which the "Administrator" or "Commissioner" has determined to be a hazardous material;

(D) The alternative emission plan does not delay or defer the compliance deadlines for any emission source or "sources"; and

(E) The alternative emission plan meets all the requirements of the "Emissions Trading Policy Statement" of the U.S. Environmental Protection Agency as specified in the December 4, 1986 Federal Register (51FR 43814).

(2) The implementation of an alternative emission reduction plan instead of compliance with the emissions limitation prescribed in any one of subsections (m) through (v), inclusive, (ee) or (ff) to (kk), inclusive, of this section shall be expressly approved by the commissioner through the issuance of a permit or an order in accordance with the provisions of section 22a-174-12 of the Regulations of Connecticut State Agencies and approved by the Administrator in accordance with the provisions of 42 USC 7401-7642. After approval, any emissions in excess of those established for each emission source under the plan will be a violation of these regulations.

(3) Where it can be shown to the satisfaction of the commissioner that an emission source cannot be controlled to comply with any one of subsections (m) through (v), inclusive, (ee) or (ff) to (kk), inclusive, of this section for reasons of technological and economic feasibility, the commissioner may by permit or order accept a lesser degree of control upon the submission of satisfactory evidence that the stationary source owner has applied Reasonably Available Control Technology and has a plan to develop the technologies necessary to comply with the applicable subsection of subsections (m) to (v), inclusive, (ee) or (ff) to (kk), inclusive, of this section and such action is approved by the Administrator in accordance with the provisions of 42 USC 7401-7642.

(dd) **Seasonal operation of afterburners.**

(1) The owner or "operator" of any "stationary source" which uses a natural gas-fired afterburner to meet the requirements of subdivisions (f) (1), (f) (2), (f) (4) or subsections (m) through (v) inclusive and (ee) may petition the "Commissioner" for permission to discontinue the operation of the afterburner during the months of November, December, January, February and March. The owner or "operator" shall submit the petition in writing and shall include the following information:

(A) Information on the nature and location of the facility of process for which the application is made;

(B) The type and quantity of "emissions" that will occur during the period of shutdown;

(C) The quantity of natural gas saved as a result of the shutdown;

(D) Any other relevant information the "Commissioner" may request in order to make a determination regarding the petition.

(2) The owner or "operator" of any "stationary source" for which a petition has been submitted in accordance with subdivision (dd) (1) shall:

(A) Publish by prominent advertisement in the "region" affected a notice that the petition has been submitted;

(B) Have made available for public inspection for thirty (30) days a copy of the petition.

(3) The "Commissioner" shall not grant a petition to discontinue the operation of a gas-fired afterburner which:

(A) Is required to meet the requirements of any other section of these regulations; or

(B) Will prevent or interfere with the "attainment" or maintenance of any federal or state "ambient air quality standard";

(i) Has not met the requirements of subdivision (dd) (2).

(4) The "Commissioner" may attach any reasonable conditions he deems necessary or desirable to any approval of a petition under this subsection including but not limited to:

(A) Requirements for special control measures to be taken by the owner or "operator" to minimize "emissions" during the period of the petition;

(B) Requirements for periodic reports submitted by the owner or "operator" relating to "emissions," to compliance with any other conditions under which the petition is granted, or to any other relevant information the "Commissioner" deems necessary.

(5) Following the decision to approve or deny the petition the "Commissioner" shall cause an order to be issued in accordance with the provisions of section 22a-174-12.

(ee) **Reasonably Available Control Technology for large sources.** The owner or operator of any premises with potential emissions of volatile organic compounds shall use Reasonably Available Control Technology in accordance with the provisions of section 22a-174-32 of the Regulations of Connecticut State Agencies on each source to limit the discharge of volatile organic compounds unless all the sources emitting volatile organic compounds at such premises are regulated by:

(1) any one of the following subsections of section 22a-174-20 of the Regulations of Connecticut State Agencies: (a), (b), (*l*) through (y) or (ff) through (jj);

(2) section 22a-174-30a of the Regulations of Connecticut State Agencies; or

(3) an order to implement reasonably available control technology issued by the Commissioner pursuant to this subsection prior to November 15, 1992 and approved by the Administrator prior to May 31, 1995. An order or permit to limit potential emissions of volatile organic compounds to less than 100 tons per year for any twelve (12) consecutive months shall not be considered an order to implement Reasonably Available Control Technology.

(ff) **Flexible package printing.**

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from operation of a flexible package printing press and related cleaning, expressed as a percentage;

(B) "Cleaning" means, with respect to a flexible package printing press or presses, cleaning of a press or press parts or the removal of dried ink from areas around the press. "Cleaning" does not include cleaning of electronic components, cleaning in platemaking or binding operations, housekeeping activity near a press or the use of a parts washer or cold cleaner;

(C) "Control device efficiency" means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(D) "Flexible package" means any package or part of a package the shape of which may be readily changed. A "flexible package" includes any bag, pouch, liner or wrap made of paper, plastic, film, aluminum foil, or metalized or coated film or paper, alone or in combination. "Flexible package" does not include any folding carton, self-adhesive labels,

gift wrap, wall covering, vinyl products, decorative laminates, floor coverings or tissue products;

(E) "Flexographic print station" means a work station on which a flexographic printing operation is conducted, which includes a flexographic printing plate and an image carrier made of rubber or other elastomeric material and where the image to be printed is raised above the printing plate;

(F) "Installation date" means an unchanging date that is the first date on which a piece of equipment is in place and prepared to operate;

(G) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(H) "Press" means a printing production assembly that is composed of one or more work stations, one or more of which is a flexographic or rotogravure print station, and that produces a printed product;

(I) "Rotogravure print station" means a work station on which a rotogravure printing operation is conducted. A rotogravure print station includes a cylinder and ink supply, and the image to be printed is etched or engraved below the surface of the cylinder;

(J) "Work station" means a unit on a press where material is deposited onto a substrate; and

(K) "As-applied VOC content" means the VOC content of an ink, coating, adhesive or cleaning solvent at the time of application to a substrate, including any solvent, catalyst or other substance added to the as-supplied ink, coating, adhesive or cleaning solvent. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method or other method approved by the commissioner.

(2) Applicability.

(A) The provisions of this subsection apply to the owner or operator of any flexible package printing press who purchases for the printing operation at least 855 gallons of coatings, adhesives, cleaning solvents and solvent-based inks in aggregate per any rolling 12-month period. Any owner or operator of a flexible package printing press shall:

(i) Comply with the requirements of this subsection no later than January 1, 2011, and

(ii) Remain subject to this subsection; and

(B) Any flexible package printing press operated pursuant to this subsection shall not be subject to subsection (v) of this section.

(3) Work practices. Each owner or operator shall use the following work practices:

(A) New and used VOC-containing ink, coating, adhesive or cleaning solvent, including ink or coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of VOC-containing ink, coating, adhesive or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing ink, coating or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with VOC-

containing ink, coating, adhesive or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) VOC-containing ink, coating, adhesive and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

(4) Additional requirements. The owner or operator of a flexible package printing press that has the potential to emit from the dryer, prior to controls, of at least 25 tons per year of VOC from the use of inks, coatings and adhesives combined shall, in addition to complying with the requirements of subdivision (3) of this subsection, use one of the following methods to control VOC emissions from such a press:

(A) Use only individual inks, coatings and adhesives with an as-applied VOC content that does not exceed 0.8 kg VOC/kg of solids (0.8 lb VOC/lb of solids) or 0.16 kg VOC/kg of materials (0.16 lb VOC/lb of materials);

(B) Use only inks, coatings and adhesives so that the daily weighted average of the VOC content of the inks, coatings and adhesives used in a single printing line does not exceed 0.8 kg VOC/kg of solids (0.8 lb VOC/lb of solids) or 0.16 kg VOC/kg of materials (0.16 lb VOC/lb of materials); or

(C) Install, operate and maintain in accordance with the manufacturer's recommendations, a capture and a control device that produce the overall control efficiency identified in Table 20(ff)-1, according to the date of installation of the press being controlled and the installation date of the air pollution control equipment.

(5) Records.

(A) An owner or operator of any flexible package printing press shall maintain records of the information described in subparagraph (B) of this subdivision. All such records shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(B) An owner or operator of a flexible package printing press shall maintain daily records of all inks, coatings, adhesives or cleaning solvents used, as follows:

(i) Name and description of each ink, coating, adhesive or cleaning solvent,

(ii) VOC content of each ink, coating, adhesive or cleaning solvent, as-applied, and the associated calculations,

(iii) VOC content of each ink, coating, adhesive or cleaning solvent, as supplied,

(iv) The amount of each ink, coating, adhesive or cleaning solvent,

(v) A Material Safety Data Sheet for each ink, coating, adhesive or cleaning solvent,

(vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner, and

(vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(C) Any owner or operator of any flexible package printing press who is not otherwise subject to the provisions of this subsection shall maintain material purchase records to verify

that the provisions of this subsection do not apply to such owner or operator.

Table 20(ff)-1. Overall control efficiency levels

Installation date of press	***Installation date of the air pollution control device***	***Overall control efficiency (%)***
Prior to March 14, 1995	Prior to January 1, 2011	65
Prior to March 14, 1995	On or after January 1, 2011	70
On or after March 14, 1995	Prior to January 1, 2011	75
On or after March 14, 1995	On or after January 1, 2011	80

(gg) **Offset lithographic printing and letterpress printing.**

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from offset lithographic or letterpress printing and related cleaning, expressed as a percentage;

(B) "Cleaning solvent" means a VOC-containing liquid used to remove ink and debris from the operating surfaces of the printing press and its parts;

(C) "Coldset" or "non-heatset" means a printing process in which the ink dries on the substrate through ordinary evaporation and absorption;

(D) "Control device efficiency" means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(E) "Fountain solution" means, with respect to offset lithographic printing, a water-based solution that contains small amounts of gum Arabic or synthetic resins, acids, buffer salts and a wetting agent or dampening aid applied to the image plate to reduce the surface tension of the solution;

(F) "Heatset" means a printing process in which ink is set by the evaporation of ink solvents or oils in a hot air dryer;

(G) "Letterpress printing" means a printing process in which the image area is raised relative to the non-image area, and the paste ink is transferred to the substrate directly from the image surface;

(H) "Lithographic printing" means a printing process in which the image and non-image areas are chemically differentiated,*i.e.*, the image area is oil receptive and the non-image area is water receptive;

(I) "Offset lithographic printing" means a type of lithographic printing in which an ink film is applied to a lithographic plate and then transferred to an intermediary surface or blanket, and the image on the blanket is then transferred to a substrate, typically paper or paperboard;

(J) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(K) "Press" means a printing production assembly composed of one or more units used

to produce a printed substrate including any associated coating, spray powder application or infrared heating units;

(L) "Sheet-fed printing" means, with respect to offset lithographic printing, a process in which individual sheets of paper or other substrate are fed to the press;

(M) "VOC composite partial vapor pressure" means the sum of the partial pressure of the compounds defined as VOCs;

(N) "Web printing" means, with respect to offset lithographic printing, a process where continuous rolls of substrate material are fed to the press and rewound or cut to size after printing; and

(O) "As-applied VOC content" means the VOC content of cleaning solvent, fountain solution or solvent-based ink at the time of application to a substrate, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent, fountain solution or solvent-based ink. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method or other method approved by the commissioner.

(2) Applicability. The provisions of this subsection apply to the owner or operator of any offset lithographic or letterpress printing press who purchases for the printing operation at least 855 gallons of cleaning solvents, fountain solution additives and solvent-based inks in aggregate per any rolling 12-month period. Any owner or operator of an offset lithographic or a letterpress printing press shall:

(A) Comply with the requirements of this subsection no later than January 1, 2011; and

(B) Remain subject to this subsection.

(3) Fountain solutions.

(A) The owner or operator of a heatset web offset lithographic printing press with a fountain solution reservoir of at least one gallon in capacity shall:

(i) Limit the as-applied VOC content of the fountain solution to 1.6% by weight or less,

(ii) If the fountain solution is refrigerated to below 60°F, limit the as-applied VOC content of the fountain solution to 3% by weight or less, or

(iii) Use fountain solution that contains no alcohol and limit the alcohol substitute content of the fountain solution to 5% by weight or less.

(B) The owner of a sheet-fed offset lithographic printing press with a minimum sheet size of greater than 11x17 inches and a fountain solution reservoir greater than one gallon in capacity shall:

(i) Limit the as-applied VOC content of the fountain solution to 5% by weight or less,

(ii) If the fountain solution is refrigerated to below 60°F, limit the as-applied VOC content of the fountain solution to 8.5% or less, or

(iii) Use fountain solution that contains no alcohol and limit the alcohol substitute content of the fountain solution to 5% by weight or less.

(C) The owner of a coldset web offset lithographic printing press with a fountain solution reservoir of at least one gallon in capacity shall use a fountain solution that contains no alcohol and that has an alcohol substitute content of 5% by weight or less.

(4) Heatset web offset lithographic printing or heatset letterpress printing. Except heatset presses for book printing or heatset presses with a web width of 22 inches or less, the owner or operator of a heatset web offset lithographic or heatset letterpress printing press with the potential to emit at least 25 tons per year of VOC emissions from all dryers, prior to controls, shall operate air pollution control equipment to:

(A) Achieve a 90% overall control efficiency if the air pollution control equipment is installed prior to January 1, 2011;

(B) Achieve a 95% overall control efficiency if the air pollution control equipment is installed on or after January 1, 2011; or

(C) Reduce the control device outlet concentration to 20 parts per million as hexane on a dry basis if the inlet VOC concentration is so low that the control efficiency specified in subparagraph (A) or (B) of this subdivision cannot be achieved.

(5) Cleaning solvents. The owner or operator of an offset lithographic printing press or letterpress printing press:

(A) Shall use cleaning solvents that:

(i) Have composite vapor pressure less than 10 mmHg at 20°C, or

(ii) Have a VOC content less than 70% by weight.

(B) May in any twelve-month period use no more than 110 gallons of cleaning solvent that does not comply with subparagraph (A) of this subdivision.

(6) Work practices. Each owner or operator shall use the following work practices:

(A) New and used VOC-containing ink, fountain solution and cleaning solvent, including solvents mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of VOC-containing ink, fountain solution and cleaning solvent shall be minimized. Any leaked or spilled VOC-containing ink, fountain solution or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with VOC-containing ink, fountain solution or cleaning solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) VOC-containing ink, fountain solution and cleaning solvents shall be conveyed from one location to another in a closed container or pipe.

(7) Records.

(A) An owner or operator of any offset lithographic or letterpress printing press shall maintain records of the information described in subparagraph (B) of this subdivision. Such records shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(B) An owner or operator of an offset lithographic or a letterpress printing press shall maintain daily records of all cleaning solvents, fountain solution additives or solvent-based inks used, as follows:

(i) Name and description of each cleaning solvent, fountain solution additive or solvent-based ink,

(ii) VOC content of each cleaning solvent, fountain solution additive or solvent-based ink, as-applied, and the associated calculations,

(iii) VOC content of each cleaning solvent, fountain solution additive or solvent-based ink, as supplied,

(iv) The amount of each cleaning solvent, fountain solution additive or solvent-based ink,

(v) A Material Safety Data Sheet for each cleaning solvent, fountain solution additive or solvent-based ink,

(vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner, and

(vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(C) Any owner or operator of any offset lithographic or letterpress printing press who is not otherwise subject to the provisions of this subsection shall maintain material purchase records to verify that the provisions of this subsection do not apply to such owner or operator.

(8) Exemptions. The requirements of subparagraph (A) of subdivision (3) and subparagraphs (A) and (B) of subdivision (5) of this section shall not apply to the owner or operator of a heatset web offset lithographic or heatset letterpress printing press that operates VOC pollution control equipment in accordance with subdivision (4) of this section or in accordance with a permit or order, if the following conditions are met:

(A) The emissions from the use of cleaning solvents and fountain solution are vented to the air pollution control system; and

(B) The air pollution control system is operated whenever the VOC-containing materials are used.

(hh) **Large appliance coatings.**

(1) Definitions. For the purpose of this subsection:

(A) "Air dried" means cured at a temperature below 90°C (194°F);

(B) "As-applied" means the composition of coating at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating as supplied by the manufacturer;

(C) "Baked" means cured at a temperature at or above 90°C (194°F);

(D) "Capture efficiency" means the ratio of VOC emissions delivered to control device to the total VOC emissions resulting from large appliance coating and related cleaning, expressed as a percentage;

(E) "Cleaning solvent" means any VOC-containing liquid used in cleaning a large appliance coating operation;

(F) "Coating" means a material that is applied to a surface and that forms a continuous

film in order to beautify or protect such surface;

(G) "Coating unit" means a series of one or more coating applicators and any associated drying area or oven wherein a coating is applied, dried or cured, including any drying area or oven where a coating is applied, dried or cured prior to any subsequent application of a different coating. A "coating unit" does not include any point other than the point where the coating is dried or cured;

(H) "Control device efficiency" means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(I) "Dip coating" means a method of applying a coating to a surface by submersion into and removal from a coating bath;

(J) "Electrostatic application" means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;

(K) "Extreme high gloss coating" means a coating that, when tested by the most recent active version of the American Society for Testing Material Test Method D523, shows a reflectance of 75 or more on a 60 degree meter;

(L) "Extreme performance coating" means a coating used on a metal surface where the coated surface is, in its intended use, subject to one of the following conditions:

(i) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution,

(ii) Repeated exposure to temperatures in excess of 121.1°C (250°F), or

(iii) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleaners or scouring agents;

(M) "Flow coating" means a non-atomized technique of applying coating to a substrate using a fluid nozzle in a fan pattern with no air supplied to the nozzle;

(N) "Heat-resistant coating" means a coating that must withstand a temperature of at least 400°F during normal use;

(O) "HVLP spray application" means to apply a coating using a high-volume, low-pressure application system that is designed to operate at air pressures between 0.1 and 10 pounds per square inch gauge, measured dynamically at the center of the air cap and the air horns;

(P) "Large appliance coating" means the application of a coating to a large appliance part or product during manufacture;

(Q) "Large appliance part" means any surface-coated metal lid, door, casing, panel or other interior or exterior metal part or accessory that is assembled to form a large appliance product;

(R) "Large appliance product" means any surface-coated large appliance including, but not limited to, a metal range, oven, microwave oven, refrigerator, freezer, washer, dryer, dishwasher, water heater or trash compactor manufactured for household, commercial or recreational use;

(S) "Metallic coating" means a coating that contains more than five grams of metal

particle per liter of coating, as-applied;

(T) "Multi-component coating" means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film;

(U) "One-component coating" means a coating that is ready for application as packaged for sale, except for the addition of a thinner to reduce the viscosity;

(V) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(W) "Pretreatment coating" means a coating, containing no more than 12% solids by weight and at least one-half percent acid by weight, applied directly to metal surfaces to provide surface etching, adhesion and ease when stripping;

(X) "Repair coating" means a coating used to recoat portions of a product that has sustained mechanical damage to the coating following normal painting operations;

(Y) "Roll coating" means a coating method using a machine that applies coating to a substrate by continuously transferring coating through a set of oppositely rotating rollers;

(Z) "Stencil coating" means an ink or a coating that is rolled or brushed onto a template or stamp to add identifying letters or numbers to metal parts or products;

(AA) "Solar-absorbent coating" means a coating which has, as its primary purpose, the absorption of solar radiation;

(BB) "Touch-up coating" means a coating used to cover minor coating imperfections appearing after the main coating operation; and

(CC) "As-applied VOC content" means the VOC content of cleaning solvent or coating at the time of application to a substrate, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent or coating. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method or other method approved by the commissioner.

(2) Applicability. Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to an owner or operator of any large appliance coating unit who purchases for the coating operation at least 855 gallons of coatings and cleaning solvents in aggregate per any rolling 12-month period. Any such owner or operator shall:

(A) Comply with the requirements of this subsection no later than January 1, 2011; and

(B) Remain subject to this subsection.

(3) Exemptions and exceptions.

(A) The requirements of subdivision (5) of this subsection shall not apply to the following:

(i) Stencil coating,

(ii) Safety-indicating coating, as defined in subdivision (1) of subsection (p) of this section,

(iii) Solid-film lubricant, as defined in subdivision (1) of subsection (p) of this section,

(iv) Electric-insulating and thermal-conducting coating, as defined in subdivision (1) of subsection (p) of this section,

(v) Touch-up coating,

(vi) Repair coating, or

(vii) Coating applied with a hand-held aerosol can.

(B) The requirements of subdivision (4) of this subsection shall not apply to a person using air pollution control equipment, as specified in subdivision (5)(B) of this subsection, to comply with the requirements of this subsection.

(4) Application methods. A person shall not apply a VOC-containing coating to any large appliance part or product unless the coating is applied by one of the following methods using equipment operated in accordance with the specifications of the equipment manufacturer:

(A) Electrostatic application;

(B) Flow coating;

(C) Dip coating;

(D) Roll coating;

(E) HVLP spray application;

(F) Hand application; or

(G) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any owner or operator using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.

(5) Compliance options. Except as provided in subdivision (3) of this subsection, on and after January 2011, no owner or operator conducting large appliance coating shall apply any coating, inclusive of any VOC-containing materials added to the original coating supplied by the manufacturer, unless the owner or operator uses one of the following methods to control emissions of VOCs:

(A) Use only coatings with an as-applied VOC content no greater than the levels specified in Table 20(hh)-1, according to coating category and drying method, where:

(i) The VOC content limits of Table 20(hh)-1 apply to the volume of coating as-applied, less water and less exempt VOC, and

(ii) The VOC content limits of Table 20(hh)-1 may be met by averaging the VOC content of materials used on a single large appliance coating unit per a single day;

(B) Install, operate and maintain in accordance with the manufacturer's recommendations, a capture and a control device that produce an overall control efficiency of 90%; or

(C) With the approval of the commissioner and the EPA Administrator, use an alternative means to achieve a level of control equivalent to that required in subparagraph (A) or (B) of this subdivision. An owner or operator shall submit a request to the commissioner and the EPA Administrator to use an alternative means of compliance, and such request shall include:

(i) A description of the method,

(ii) A demonstration of the level of emissions control achieved, and

(iii) Any other information requested by the commissioner or the EPA Administrator.

(6) Work practices. Each owner or operator shall use the following work practices:

(A) New and used VOC-containing coating or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of VOC-containing coating or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or cleaning solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) VOC-containing coating and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

Table 20(hh)-1. As-Applied VOC Content Limits Per Volume of Coating (Excluding Water and Exempt VOCs) per Coating Category, Specific to the Drying Process

Coating Category	Baked		Air Dried	
	g/L	lb/gal	g/L	lb/gal
General, one component	275	2.3	275	2.3
General, multicomponent	275	2.3	340	2.8
Extreme high gloss	360	3.0	340	2.8
Extreme performance	360	3.0	420	3.5
Heat-resistant	360	3.0	420	3.5
Metallic	420	3.5	420	3.5
Pretreatment	420	3.5	420	3.5
Solar-absorbent	360	3.0	420	3.5

(7) Records.

(A) An owner or operator of any large appliance coating unit shall maintain records of the information described in subparagraph (B) of this subdivision. Such records shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(B) An owner or operator of a large appliance coating unit shall maintain daily records of all coatings and cleaning solvents used, as follows:

(i) Name and description of each coating or cleaning solvent,

(ii) VOC content of each coating or cleaning solvent, as-applied, and the associated calculations,

(iii) VOC content of each coating or cleaning solvent, as supplied,

(iv) The amount of each coating or cleaning solvent,

(v) A Material Safety Data Sheet for each coating or cleaning solvent,

(vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner, and

(vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(C) Any owner or operator of any large appliance coating unit who is not otherwise subject to the provisions of this subsection shall maintain material purchase records to verify that the provisions of this subsection do not apply to such owner or operator.

(ii) **Industrial solvent cleaning.**

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from industrial solvent cleaning, expressed as a percentage;

(B) "Cleaning solvent" means any VOC-containing liquid, including a liquid impregnated wipe or towelette, used in cleaning;

(C) "Control device efficiency" means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(D) "Industrial solvent cleaning" means the use of cleaning solvent to remove uncured adhesives, uncured inks, uncured coatings or contaminants such as dirt, soil or grease from parts, products, tools, machinery, equipment or work areas, where such parts, products, tools, machinery, equipment and work areas are incorporated into or used exclusively in manufacturing a product. "Industrial solvent cleaning" includes spray booth cleaning, cleaning of manufactured components, parts cleaning, cleaning of production equipment for maintenance or to prohibit cross-contamination, and cleaning of tanks, mixing pots, process vessels and lines. "Industrial solvent cleaning" does not include the cleaning of personal protection equipment, such as respirators.

(E) "Janitorial cleaning" means general and maintenance cleaning of building or facility components including, but not limited to, floors, ceilings, walls, windows, doors, stairs, restrooms, furnishings, kitchens and exterior surfaces of office equipment. "Janitorial cleaning" includes graffiti removal. "Janitorial cleaning" does not include the cleaning of parts, products or equipment, where such parts, products or equipment are incorporated into or used exclusively in manufacturing a product. "Janitorial cleaning" excludes the cleaning of work areas, such as laboratory benches, where manufacturing or repair activity is performed;

(F) "Medical device" means an instrument, apparatus, implement, machine, gadget, appliance, implant,*in vitro* reagent or other similar or related article, including any component, part or accessory, which meets one of the following conditions:

(i) Recognized in the official National Formulary or the United States Pharmacopeia or any supplement thereto,

(ii) Intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment or prevention of disease, in persons or animals, or

(iii) Intended to affect the structure or function of the body of a person or animal, and which does not achieve its primary intended purposes through chemical action within or on such body and which is not dependent upon being metabolized for the achievement of its primary intended purposes;

(G) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(H) "Screen printing" means a method of creating an image by pressing ink through a screen or fabric to which a stencil has been applied and where the stencil openings determine the form and dimensions of the image; and

(I) "As-applied VOC content" means the VOC content of a cleaning solvent at the time of use, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method or other method approved by the commissioner.

(2) Applicability. Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to an owner or operator of any premises who purchases for use at the premises at least 855 gallons of cleaning solvents in aggregate per rolling 12-month period. Any owner or operator of such a premises shall:

(A) Comply with the requirements of this subsection no later than January 1, 2011; and

(B) Remain subject to this subsection.

(3) Exemptions and exceptions.

(A) The requirements of this subsection shall not apply to the use of cleaning solvent as follows:

(i) In janitorial cleaning,

(ii) At an aerospace manufacturing and rework operation or a wood furniture coating operation in accordance with an order or a permit issued pursuant to sections 22a-174-32(e) and 22a-174-20(cc) of the Regulations of Connecticut State Agencies,

(iii) To perform general solvent cleaning in accordance with an order issued pursuant to section 22a-174-20(ee) of the Regulations of the Connecticut State Agencies,

(iv) At any aerospace manufacturing and rework facility, provided that cleaning solvent is used in accordance with the requirements of 40 CFR 63.744, inclusive of exemptions,

(v) As surface preparation or cleanup solvent in accordance with section 22a-174-44 of the Regulations of Connecticut State Agencies,

(vi) Where the cleaning solvent is regulated pursuant to section 22a-174-40 of the Regulations of Connecticut State Agencies,

(vii) To perform industrial solvent cleaning where such cleaning or cleaning solvent is subject to one of the following subsections of this section: (*l*) through (y), (ff) through (hh), or (jj),

(viii) In cleaning, including surface preparation prior to coating, necessary to meet a

standard or specification issued or approved by the United States Department of Defense, Federal Aviation Administration or other federal government entity. Any person claiming exemption pursuant to this clause shall maintain records of the standard or specification,

(ix) Associated with research and development,

(x) Associated with quality control or laboratory testing of coatings, inks or adhesives,

(xi) Associated with medical device manufacturing,

(xii) Associated with pharmaceutical manufacturing,

(xiii) That exceeds the applicable limit of subdivision (4)(A) of this subsection where the quantity used does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this clause shall record and maintain monthly records sufficient to demonstrate compliance with this exemption, or

(xiv) That exceeds the applicable limit of subdivision (4)(A) of this subsection, if approved by the commissioner and the EPA Administrator. Any request for approval shall be made in writing to the commissioner and EPA Administrator and shall include a description of the cleaning solvent and its VOC content, an explanation of why the cleaning solvent is necessary, quantification of the amount of the VOC that will be emitted as a result of the use of the noncompliant cleaning solvent and the time period over which the noncompliant solvent will be used.

(B) The requirements of subdivisions (4) and (6) of this subsection shall not apply to the use of cleaning solvent in a digital printing operation, where digital printing means a method of printing in which an electronic output device transfers variable data, in the form of an image, from a computer to a substrate.

(C) The limitations of subdivision (4)(A) of this subsection shall not apply to cleaning solvent used to clean screen printing equipment, if the cleaning solvent used has an as-applied VOC content that does not exceed 500 grams per liter (4.2 pounds per gallon).

(4) Control of emissions. Except as provided in subdivision (3) of this subsection, any owner or operator performing industrial solvent cleaning shall use one of the following methods to limit VOC emissions:

(A) Use only cleaning solvent that complies with one of the following limitations:

(i) As-applied, has a VOC content that does not exceed 50 grams per liter (0.42 lb/gal), or

(ii) As-applied, has a vapor pressure no greater than 8 mm Hg at 20°C; or

(B) Install, operate and maintain in accordance with the manufacturer's recommendations, air pollution control equipment that reduces uncontrolled VOC emissions to the atmosphere from any industrial solvent cleaning by an overall control efficiency of at least 85%.

(5) Work practices. Each owner or operator shall use the following work practices:

(A) New and used cleaning solvent, including those mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of cleaning solvent shall be minimized. Any leaked or spilled

cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with cleaning solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) Cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

(6) Records.

(A) An owner or operator conducting industrial solvent cleaning shall maintain records of the information described in subparagraph (B) of this subdivision. Such records shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(B) An owner or operator conducting industrial solvent cleaning shall maintain daily records of all cleaning solvents used, as follows:

(i) Name and description of each cleaning solvent,

(ii) VOC content of each cleaning solvent, as-applied, and the associated calculations,

(iii) VOC content of each cleaning solvent, as supplied,

(iv) The amount of each cleaning solvent,

(v) A Material Safety Data Sheet for each cleaning solvent,

(vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner, and

(vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(C) Any owner or operator conducting industrial solvent cleaning who is not otherwise subject to the provisions of this subsection shall maintain materials purchase records to verify that the provisions of this subsection do not apply to such owner or operator.

(D) An owner or operator conducting industrial solvent cleaning subject to an exemption or exception in subdivision (3) of this subsection shall maintain records sufficient to verify the applicability of the exemption or exception.

(jj) **Spray application equipment cleaning.**

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from spray application equipment cleaning, expressed as a percentage;

(B) "Cleaning solvent" means any VOC-containing liquid used to clean spray application equipment;

(C) "Control device efficiency" means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(D) "Enclosed gun cleaner" means a device, used for cleaning spray application equipment, which has an enclosed cleaning solvent container and either:

(i) Is not open to the ambient air when in use and has a mechanism to force the cleaning solvent through the spray application equipment while the cleaner is in operation, or

(ii) Uses non-atomized solvent flow to flush the spray application equipment and collects and returns the discharged cleaning solvent to the enclosed container;

(E) "Medical device" means an instrument, apparatus, implement, machine, gadget, appliance, implant, *in vitro* reagent or other similar or related article, including any component, part or accessory, which meets one of the following conditions:

(i) Recognized in the official National Formulary or the United States Pharmacopeia or any supplement thereto,

(ii) Intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment or prevention of disease, in persons or animals, or

(iii) Intended to affect the structure or function of the body of a person or animal, and which does not achieve its primary intended purposes through chemical action within or on such body and which is not dependent upon being metabolized for the achievement of its primary intended purposes;

(F) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency; and

(G) "Spray application equipment" means a hand-held device that creates an atomized mist of coating, or other liquid substance, and deposits the coating, or other liquid substance, on a substrate.

(H) "As-applied VOC content" means the VOC content of a cleaning solvent at the time of use, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method or other method approved by the commissioner.

(2) Applicability. Except as provided in subdivision (3) of this subsection, on and after January 1, 2011, the provisions of this subsection apply to an owner or operator of any spray application equipment.

(3) Exemptions and exceptions.

(A) The requirements of this subsection shall not apply to cleaning of spray application equipment as follows:

(i) Associated with automotive refinishing and conducted pursuant to section 22a-174-3b(d) of the Regulations of Connecticut State Agencies,

(ii) Pursuant to section 22a-174-44(d) of the Regulations of Connecticut State Agencies,

(iii) At any aerospace manufacturing and rework facility, provided that cleaning solvent is used in accordance with the requirements of 40 CFR 63.744, inclusive of exemptions,

(iv) Necessary to meet a standard or specification of the United States Department of Defense,

(v) Associated with research and development, quality control or laboratory testing, or

(vi) Associated with medical device manufacturing;

(B) The cleaning solvent VOC content limit of subparagraphs (B) through (D) of

subdivision (4) of this subsection shall not apply to the cleaning of spray application equipment used in the assembly, repair and manufacture of submarines;

(C) Using cleaning solvent that exceeds the VOC content limitation of subparagraph (B), (C) or (D) of subdivision (4) of this subsection where the quantity of cleaning solvent used does not exceed 55 gallons in aggregate per any 12-month rolling period. Any person claiming exemption pursuant to this subparagraph shall record and maintain monthly records sufficient to demonstrate compliance with this exemption; and

(D) The cleaning solvent VOC content limitations of subparagraph (B), (C) or (D) of subdivision (4) of this subsection shall not apply, upon request to and approval by the commissioner. Any request for approval shall be made in writing to the commissioner and shall include a description of the noncompliant solvent and its VOC content, an explanation of why the noncompliant solvent is necessary, the aggregate amount in gallons or pounds of noncompliant solvent use anticipated in a 12-month period and the frequency of use of the noncompliant solvent.

(4) Control of emissions. An owner or operator shall clean spray application equipment in accordance with the requirements of one of the following subparagraphs:

(A) Using an enclosed gun cleaner that is maintained and operated in accordance with the manufacturer's recommendations and the following practices:

(i) Operate using an automated cycle, if applicable,

(ii) Inspect hoses regularly for leaks,

(iii) If a leak is discovered, repair as soon as practicable but no later than 15 days after discovery, and

(iv) Ensure the cover is properly closed;

(B) Using only cleaning solvent with an as-applied VOC content that does not exceed 50 grams per liter (0.417 lb/gal) by placing cleaning solvent in the pressure pot and forcing the solvent through the gun with the atomizing cap in place, without the use of atomizing air. Used cleaning solvent shall be directed into a vat, drum or other waste container that is closed when not in use;

(C) Using only cleaning solvent with an as-applied VOC content that does not exceed 50 grams per liter (0.417 lb/gal) by disassembling the spray gun and cleaning the components and associated hoses and pumps by hand in a vat, which shall remain closed at all times except when in use. Components and associated hoses and pumps may be soaked in a vat with a capacity no greater than 20 liters. Such a soaking vat shall remain closed during the soaking period, except when inserting or removing items;

(D) Using only cleaning solvent with an as-applied VOC content that does not exceed 50 grams per liter (0.417 lb/gal) by forcing cleaning solvent through the spray gun and directing the atomized solvent spray into a waste container that is fitted with a device to capture the resulting emissions; or

(E) Installing, operating and maintaining air pollution control equipment that reduces uncontrolled VOC emissions to the atmosphere from any spray application equipment cleaning by an overall control efficiency of at least 85%.

(5) Work practices. Each owner or operator shall use the following work practices:

(A) New and used cleaning solvent, including those mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of cleaning solvent shall be minimized. Any leaked or spilled cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper that are moistened with cleaning solvent shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling;

(D) Cleaning solvent shall be conveyed from one location to another in a closed container or pipe; and

(E) Air pollution control equipment shall be operated and maintained in accordance with the manufacturer's recommendations.

(6) Records.

(A) An owner or operator conducting spray application equipment cleaning shall maintain records of the information described in subparagraph (B) of this subdivision. Such records shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(B) An owner or operator conducting spray application equipment cleaning shall maintain daily records of all cleaning solvents used, as follows:

(i) Name and description of each cleaning solvent,

(ii) VOC content of each cleaning solvent, as-applied, and the associated calculations,

(iii) VOC content of each cleaning solvent, as supplied,

(iv) The amount of each cleaning solvent,

(v) A Material Safety Data Sheet for each cleaning solvent,

(vi) A description of the type of cleaning equipment and process,

(vii) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner, and

(viii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(C) An owner or operator that is conducting spray application equipment cleaning subject to an exemption or exception in subdivision (3) of this subsection shall maintain records sufficient to verify the applicability of the exemption or exception.

(kk) **Pleasure craft coatings.**

(1) Definitions. For the purposes of this section, the following definitions apply:

(A) ''Airless spray application'' means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;

(B) ''Air-assisted airless spray application'' means a coating spray application system using fluid pressure to atomize the coating and low pressure air to adjust the shape of the

spray pattern;

(C) ''Antifouling coating'' means a coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms;

(D) ''Antifouling sealer or tie coat'' means a coating applied over biocidal antifouling coating for the purpose of preventing release of biocides into the environment or to promote adhesion between an antifouling coating and a primer or another antifouling coating;

(E) ''As applied'' means the composition of coating, excluding water and exempt compounds, at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating;

(F) ''Capture efficiency'' means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from pleasure craft coating and related cleaning, expressed as a percentage;

(G) ''Control device efficiency'' means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

(H) ''Electrostatic application'' means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;

(I) ''Exempt compound'' means a carbon compound excluded from the definition of ''volatile organic compound'' as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;

(J) ''Extreme high-gloss coating'' means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 90 or more on a 60 degree meter;

(K) ''Finish primer or surfacer'' means a coating applied with a wet film thickness of less than 10 millimeters prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;

(L) ''Flow coating'' means a non-atomized technique of applying coating in a fan pattern to a substrate using a fluid nozzle with no air supplied to the nozzle;

(M) ''High build primer or surfacer'' means a coating applied with a wet film thickness of 10 millimeters or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;

(N) ''High gloss coating'' means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 85 or more on a 60 degree meter;

(O) ''HVLP spray application'' means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;

(P) ''Overall control efficiency'' means the product of the capture efficiency and the

control device efficiency;

(Q) ''Pleasure craft'' means any marine or freshwater vessel manufactured or operated primarily for recreational purposes;

(R) ''Pleasure craft coating'' means any marine coating, except unsaturated polyester resin (fiberglass), applied to a pleasure craft or to parts and components of a pleasure craft;

(S) ''Pretreatment wash primer'' means a coating, containing at least 0.1 percent acid by weight and no more than 25 percent solids by weight, that is used to provide surface etching and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings;

(T) ''Related cleaning'' means the removal of uncured coatings, coating residue, and contaminants from:

(i) Pleasure craft or parts and components of pleasure craft prior to the application of coatings,

(ii) Pleasure craft or parts and components of pleasure craft between coating applications, or

(iii) Transfer lines, storage tanks, spray booths, and coating application equipment; and

(U) ''Transfer efficiency'' means the portion of coating solids that adheres to the pleasure craft surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator.

(2) Applicability.

(A) Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to the owner or operator of any marina, boat yard, or other premises where pleasure craft coating is applied for commercial purposes at the direction of such owner or operator, if:

(i) Such owner or operator was subject to subsection (s) of this section prior to January 1, 2013, or

(ii) Such owner or operator purchases for use in all pleasure craft coating and related cleaning at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period;

(B) An owner or operator subject to this subsection shall:

(i) For a source operating prior to January 1, 2013, comply with the requirements of this subsection no later than January 1, 2013, or

(ii) For a source that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation; and

(C) Any owner or operator subject to this subsection shall remain subject to this subsection.

(D) An owner or operator of any marina, boat yard, or other premises where pleasure craft coating is applied for commercial purposes who does not meet the applicability thresholds of subparagraph (A) of this subdivision shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.

(3) Exemptions and exceptions.

(A) The requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivision (2) or (4)(E) of this subsection:

(i) Coating and cleaning subject to one of the following subsections of this section:

(l) through (s) and (hh) through (jj),

(ii) Coating and associated surface preparation and cleanup subject to sections 22a-174-41 and 22a-174-41a of the Regulations of Connecticut State Agencies,

(iii) Coating applied with a hand-held aerosol can,

(iv) Application of adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies,

(v) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing,

(vi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight, or

(vii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight.

(B) An owner or operator operating pursuant to an exception or exemption provided in subparagraph (A) of this subdivision shall maintain records sufficient to verify the applicability of the exception or exemption.

(C) An owner or operator may use in aggregate in any 12 consecutive months no more than 55 gallons of pleasure craft coatings that exceed the VOC content limits or emission limits of subdivision (4) of this subsection.

(4) On and after January 1, 2013, no owner or operator of a pleasure craft coating operation shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C), (D) or (E) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or rate shall apply. An owner or operator shall:

(A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(kk)-1;

(B) Use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(kk)-2;

(C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%;

(D) Use an alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, as requested from and approved by the commissioner, in accordance with subsection (cc) of this section; or

(E) Limit the total potential VOC emissions from all pleasure craft coating operations and related cleaning by permit or order of the commissioner to 1,666 pounds or less in any calendar month.

(5) Application methods. Except as provided in subdivision (3) of this subsection, an owner or operator shall not apply a VOC-containing coating to a pleasure craft or to a part or component of a pleasure craft unless the coating is applied by one of the methods identified in subparagraphs (A) through (F) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:

(A) Electrostatic application;

(B) HVLP spray application;

(C) Airless spray application;

(D) Air-assisted airless spray application;

(E) Hand application; or

(F) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any coating operation using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.

(G) The requirements of this subdivision shall not apply to the application of an extreme high gloss coating.

(6) Work practices. Each owner or operator shall use the following work practices:

(A) New and used VOC-containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

(B) Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be contained, absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non- leaking container for disposal or recycling; and

(D) VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

(7) Records.

(A) Except as provided in subparagraphs (B) and (C), an owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the following information for each calendar month:

(i) Name and description of each coating and cleaning solvent,

(ii) VOC content of each coating and diluent, as applied, and the associated calculations,

(iii) VOC content of each coating or cleaning solvent, as supplied,

(iv) The amount of each coating and cleaning solvent:

(I) Purchased, or

(II) Used,

(v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data

Sheet, or an equivalent data sheet for each coating and cleaning solvent,

(vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator, and

(vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(B) All records made pursuant to this subdivision shall be:

(i) Made available to the commissioner to inspect and copy upon request, and

(ii) Maintained for five years from the date such record is created.

(8) Compliance procedures.

(A) The VOC content limits of Table 20(kk)-1 apply to the volume of coating as applied, determined using the following equation:

VOC Content = (Ws - Ww-Wes)/(Vm - Vw – Ves)

Where:

Ws = weight of volatile compounds in grams

Ww = weight of water in grams

Wes = weight of exempt compounds in grams

Vm = volume of coating in liters

Vw = volume of water in liters

Ves = volume of exempt compounds in liters

(B) The VOC emission rate limits of Table 20(kk)-2 apply to the mass of VOC emitted per volume of coating solids, as applied.

(C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the satisfaction of the commissioner and the Administrator that the manufacturer's formulation data are correct.

(D) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.

(E) A pleasure craft coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a pleasure craft coating.

Table 20(kk)-1
Pleasure Craft Coating VOC Content Limits

Coating Category	g VOC/liter coating	lbs VOC/gal coating
Extreme high-gloss coating	600	5.0
High gloss coating	420	3.5

Pretreatment wash primer	780	6.5
Finish primer or surfacer	Effective until December 31, 2015: 600 Effective January 1, 2016: 420	Effective until December 31, 2015: 5.0 Effective January 1, 2016: 3.5
High build primer or surfacer	340	2.8
Antifouling coating – aluminum substrate	560	4.7
Antifouling coating – all other substrates	400	3.3
Antifouling sealant or tie coat	420	3.5
All other pleasure craft surface coatings for metal or plastic	420	3.5

Table 20(kk)-2
Pleasure Craft Surface Coating VOC Emission Rate Limits

Coating Category	**g VOC/liter solids**	**lbs VOC/gal solids**
Extreme high-gloss coating	1100	9.2
High gloss coating	800	6.7
Pretreatment wash primer	667	55.6
Finish primer or surfacer	Effective until December 31, 2015: 1870 Effective January 1, 2016: 800	Effective until December 31, 2015: 15.59 Effective January 1, 2016: 6.7
High build primer or surfacer	550	4.6
Antifouling coating – aluminum substrate	1530	12.8
Antifouling coating – all other substrates	764	6.4
Antifouling sealer or tie coat	800	6.7

All other pleasure craft surface coatings for metal or plastic	800	6.7

(Effective August 23, 1996; Amended April 1, 1998; Amended April 4, 2006; Amended July 26, 2007; Amended January 1, 2009; Amended April 6, 2010; Amended October 31, 2012; Amended March 7, 2014; Amended July 8, 2015; Amended October 5, 2017; Amended November 18, 2020; Amended October 28, 2022)

Sec. 22a-174-21. Control of carbon monoxide emissions (Repealed)

Repealed June 11, 2014.

(Effective August 1, 1983; Repealed June 11, 2014)

Notes: For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

Sec. 22a-174-22. Control of nitrogen oxides emissions (Repealed)

Repealed June 1, 2018.

(Effective January 23, 1997; Amended December 28, 2000; Amended April 1, 2004; Amended January 1, 2005; Amended April 4, 2006; Amended June 3, 2013; Amended December 22, 2016; Repealed June 1, 2018)

Notes: Repeal of June 1, 2018 made by amendment of December 22, 2016. (June 28, 2018)

Sec. 22a-174-22a. Repealed

Repealed September 4, 2007.

Sec. 22a-174-22b. Repealed

Repealed May 1, 2010.

(Adopted effective September 29, 1999; Amended April 4, 2006; Repealed May 1, 2010)

Notes: History updated October 20, 2014 to clarify section repealed date. Repeal of May 1, 2010 made by final approved regulation effective September 4, 2007. (October 20, 2014)

Sec. 22a-174-22c. The clean air interstate rule (CAIR) nitrogen oxides (NO_x) ozone season trading program

(a) **Definitions.** For the purposes of this section, the following definitions apply, provided that any term related to the administration of this section that is not defined in this subsection shall be as defined or described in 40 CFR 96 subpart AAAA and any remaining terms not defined shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies:

(1) "CAIR NO_x Ozone Season unit" means a unit that:

(A) Is a "CAIR NO_x Ozone Season unit" under 40 CFR 96.304; or

(B) Satisfies the criteria in one of the following clauses:

(i) Is a fossil-fuel-fired emission unit that operated at any time during the period from May through September 1990 and that serves a generator with a nameplate capacity of fifteen (15) megawatts or more,

(ii) Is a fossil-fuel-fired emission unit that serves a generator that generates electricity at a rated output of fifteen (15) megawatts or more by employing "cogeneration technology," as defined in section 16-1 of the Connecticut General Statutes,

(iii) Is a fossil-fuel-fired boiler or indirect heat exchanger with a maximum design heat input of 250 MMBtu/hr or more, or

(iv) Is a fossil-fuel-fired emission unit that began operating after September 30, 1990 and that serves a generator that generates electricity at a rated output of fifteen (15) megawatts or more.

(2) "CAIR NATS" means "CAIR NO_x Ozone Season Allowance Tracking System" as defined in 40 CFR 96.302.

(3) "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year.

(4) "Combined heat and power system" or "CHP system" means a generation unit that sequentially produces both electric power and thermal energy from a single source.

(5) "Commence commercial operation" means, with regard to a unit:

(A) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, except as provided in subparagraph (B) of this definition and 40 CFR 96.305.

(i) For a unit that is a CAIR NO_x Ozone Season unit on the later of November 15, 1990 or the date the unit commences commercial operation as defined in subparagraph (A) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is a CAIR NO_x Ozone Season unit on the later of November 15, 1990 or the date the unit commences commercial operation as defined in subparagraph (A) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date of commencement of commercial operation as defined in subparagraph (A) or (B) of this definition as appropriate.

(B) Except as provided in 40 CFR 96.305, for a unit that is not a CAIR NO_x Ozone Season unit on the later of November 15, 1990 or the date the unit commences commercial operation as defined in subparagraph (A) of this definition, the unit's date of commencement of commercial operation shall be the date on which the unit becomes a CAIR NO_x Ozone Season unit.

(i) For a unit with a date of commencement of commercial operation as defined in subparagraph (B) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date

of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date of commencement of commercial operation as defined in subparagraph (B) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date of commencement of commercial operation as defined in subparagraph (A) or (B) of this definition as appropriate.

(C) Notwithstanding subparagraphs (A) and (B) of this definition, for a unit not serving a generator producing electricity for sale, the unit's date of commencement of operation shall also be the unit's date of commencement of commercial operation.

(6) "Commence operation" means:

(A) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber, except as provided in subparagraph (B) of this definition, provided that:

(i) For a unit that has undergone a physical change other than replacement of the unit by a unit at the same source after the date the unit commences operation as defined in subparagraph (A) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit, and

(ii) For a unit that is replaced by a unit at the same source after the date the unit commences operation as defined in subparagraph (A) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date of commencement of operation as defined in subparagraphs (A)(i) or (A)(ii) of this definition, as appropriate.

(B) Solely for purposes of 40 CFR 96, subpart HHHH, for a unit that is not a CAIR NO_x Ozone Season unit on the later of November 15, 1990 or the date the unit commences operation as defined in subparagraph (A) of this definition and that subsequently becomes a CAIR NO_x Ozone Season unit, the unit's date of commencement of operation shall be the date on which the unit becomes a CAIR NO_x Ozone Season unit provided that:

(i) For a unit that subsequently undergoes a physical change other than replacement of the unit by a unit at the same source after the date the unit commences operation as defined in subparagraph (B) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit, and

(ii) For a unit that is replaced by a unit at the same source after the date the unit commences operation as defined in subparagraph (B) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date of commencement of operation as defined in subparagraph (A) or (B) of this definition, as appropriate.

(7) "Energy efficiency project" or "EEP" means the installation or implementation at a stationary source of one or more of the measures listed in subparagraphs (A) through (E) of this definition that is not otherwise required by law or regulation and that results in energy

savings at a facility located in the State of Connecticut:

(A) The construction of a new building or addition that exceeds the minimum energy efficiency requirements of the State Building Code;

(B) The installation, replacement or modification of equipment, fixtures or materials;

(C) The commencement or modification of building or facility operation and maintenance procedures;

(D) A combined heat and power system; or

(E) Any other measure approved by the commissioner in writing.

Projects that do not result in energy savings, such as reductions in labor and load shifting, projects resulting in energy savings for a CAIR NO_x Ozone Season unit and mobile source measures are not considered EEPs.

(8) "Energy Efficiency and Renewable Energy Set-Aside Baseline Period" or "EERESA Baseline Period" means either of the two control periods, as approved by the commissioner, preceding the year in which an EEP, a renewable energy project (REP) or a qualifying other project (QOP), as defined in this section, is first put in use or first becomes operational. The EERESA Baseline Period remains constant when calculating CAIR NO_x Ozone Season allowance allocations for such REP, EEP or QOP in any subsequent year.

(9) "EERESA Representative" means a person who aggregates any combination of one or more renewable energy projects, energy efficiency projects or qualifying other projects, to equal at least one whole allowance, or who aggregates two or more years of operation by a single project, to equal at least one whole allowance. An EERESA representative includes, but is not limited to, the following: a common owner of the aggregated projects, an energy service company, an emission trading broker or a state or municipal entity.

(10) "Fossil-fuel-fired" means:

(A) With regard to a unit, combusting any amount of fossil fuel in any calendar year; or

(B) Solely for purposes of applying subparagraph (B) of the definition of "CAIR NO_x Ozone Season unit" in subsection (a) of this section, the combustion of fossil fuel, any derivative of fossil fuel alone, or a combination of fuels, of which fossil fuel:

(i) Comprises more than fifty percent (50%) of the annual heat input (in Btu) in 1990 or any year thereafter; or

(ii) Is projected to comprise more than fifty percent (50%) of the annual heat input (in Btu), provided that the commissioner shall consider an emission unit as "fossil-fuel fired" upon the date such emission unit begins combusting fossil fuel.

(11) "Gross energy input" means total fuel-related heat input in Btus per unit of time, based upon the higher heating value of fuel.

(12) "Indirect heat exchanger" means combustion equipment in which the flame or products of combustion are separated from any contact with the principal material in the process by metallic or refractory walls, and that emits exhaust gases only through a stack. Indirect heat exchangers include, but are not limited to, steam boilers, vaporizers, melting pots, heat exchangers, column reboilers, fractioning column feed preheaters, reactor feed preheaters, pyrolysis heaters and fuel-fired reactors.

(13) "Industrial Unit" means a fossil-fuel-fired boiler or indirect heat exchanger with a maximum design heat input of 250 MMBtu/hr or more.

(14) "Nameplate capacity" means, solely for purposes of applying subparagraph (B) of the definition of "CAIR NO_x Ozone Season unit" in subsection (a) of this section, the maximum electrical generating output (in MW electrical) that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings as measured in accordance with the United States Department of Energy standards.

(15) "Net electricity output" means the gross electric generation (in MWh) less any of the energy output consumed in the process of generation.

(16) "New Unit" means any fossil-fuel-fired unit that commences operation on or after January 1, 2006 and that serves a generator that generates electricity at a rated output of fifteen (15) megawatts or more.

(17) "Normal system operation" means all times of operation except periods of startup, shutdown or malfunction; commissioner-approved stack testing; or intentional sootblowing, fuel switching or sudden load changing.

(18) "Permitting authority" shall mean "commissioner" as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies, except for purposes of the definitions of "Allocate or allocation" and "CAIR NO_x Ozone Season allowance" in 40 CFR 96.302, in which case "permitting authority" shall have the same meaning as in 40 CFR 96 subpart AAAA.

(19) "Phase I Unit" means a CAIR NO_x Ozone Season unit that is a fossil-fuel-fired unit that operated at any time prior to November 15, 1990 and that serves a generator with a nameplate capacity of fifteen (15) megawatts or more.

(20) "Phase II Unit" means a fossil-fuel-fired unit that began operating on or after November 15, 1990, that serves a generator that generates electricity at a rated output of fifteen (15) megawatts or more.

(21) "Proponent" means any person who owns, leases, operates or controls an energy efficiency project, a renewable energy project or a qualifying other project, or an EERESA representative.

(22) "Prospective project" means a REP, EEP or QOP that is not in operation but for which the owner has awarded contracts for installation or purchase of components or begun on-site construction or installation.

(23) "Qualifying other project" or "QOP" means the implementation or installation of a measure at a stationary source that is not otherwise required by law or regulation, that results in thermal or electric energy savings, that is not an EEP or a REP and that is approved by the commissioner in writing.

(24) "Reciprocating grate waste tire fired Unit" means an emissions unit com-busting a single item waste stream of tires that began operating on or after November 15, 1990, that serves a generator that generates electricity at a rated output of fifteen (15) megawatts or more.

(25) "Renewable energy" means energy generated by one or more of the following fuels,

energy resources or technologies, and that does not emit NO_x: solar photovoltaic or solar thermal energy; wind energy; fuel cells, which do not employ a fuel processor that emits NO_x; ocean thermal, wave or tidal energy; or hydro and geothermal energy.

(26) "Renewable energy project" or "REP" means one or more generation units producing renewable energy, located in the State of Connecticut or directly and solely connected to transmission facilities in the State of Connecticut, exclusive of a generation unit that has been awarded CAIR NO_x Ozone Season allowances under another program administered by federal or state government.

(27) "State Building Code" means the State Building Code adopted pursuant to section 29-252 of the Connecticut General Statutes.

(28) "State trading budget" means "Connecticut emission budget" as identified in subsection (c) of this section.

(29) "Unit of production" means a manufactured item or raw, intermediate or final material, including steam or other product, measured in discrete units and produced as a result of the consumption of energy in a specific process or by a piece of equipment.

(30) "Useful net thermal energy" means, for a REP generating thermal energy or for use of a CHP system, the energy output of thermal energy used for heating, cooling, industrial processes or other beneficial uses.

(b) **Applicability.**

(1) This section shall apply to the owner or operator of a CAIR NO_x Ozone Season unit.

(2) Except as provided in subsection (i)(4) of this section, the requirements of section 22a-174-22b of the Regulations of Connecticut State Agencies shall not apply to the control period beginning May 1, 2009 and any control period thereafter.

(c) **Connecticut emission budget.**

(1) The Connecticut emission budget is two thousand six hundred ninety one (2,691) tons of NO_x during each control period for each year beginning in 2009.

(2) The commissioner shall implement the Connecticut emission budget by allocation of NO_x allowances as described in subsection (e) of this section.

(3) The commissioner shall establish the following accounts in the CAIR NATS:

(A) The Connecticut State Account, to hold the Connecticut emission budget for allocation to the compliance accounts of CAIR NO_x Ozone Season units; and

(B) The Connecticut Retirement Account, to hold NO_x allowances exacted for purposes other than compliance with this section and permanently retired.

(d) **Allocation timing.**

(1) For CAIR NO_x Ozone Season units other than New Units, the commissioner shall allocate CAIR NO_x Ozone Season allowances according to the following schedule:

(A) No later than April 30, 2007, determine and notify the Administrator of each CAIR NO_x Ozone Season unit's allocation of CAIR NO_x Ozone Season allowances for the 2009, 2010 and 2011 control periods;

(B) No later than October 31, 2008, determine and notify the Administrator of each CAIR NO_x Ozone Season unit's allocation of CAIR NO_x Ozone Season allowances for the 2012

control period; and

(C) No later than October 31, 2009 and each year thereafter, determine and notify the Administrator of each CAIR NO_x Ozone Season unit's allocation of CAIR NO_x Ozone Season allowances for the control period in the fourth calendar year after the year in which the notification is to be submitted.

(2) For New Units, the commissioner shall allocate CAIR NO_x Ozone Season allowances as follows:

(A) A New Unit commencing operation between January 1 and September 30, 2006, inclusive:

(i) Shall be considered a New Unit for the purpose of allocating CAIR NO_x Ozone Season allowances during the 2009 through 2011 control periods, and

(ii) Shall be considered a Cogeneration Unit, an Industrial Unit, a Reciprocating grate waste tire fired Unit or a Phase II Unit for the purpose of allocating CAIR NO_x Ozone Season allowances for the 2012 and later control periods;

(B) A New Unit commencing operation between October 1, 2006 and September 30, 2007, inclusive:

(i) Shall be considered a New Unit for the purpose of allocating CAIR NO_x Ozone Season allowances during the 2009 through 2012 control periods, and

(ii) Shall be considered a Cogeneration Unit, an Industrial Unit, a Reciprocating grate waste tire fired Unit or a Phase II Unit for the purpose of allocating CAIR NO_x Ozone Season allowances for the 2013 and later control periods;

(C) A New Unit commencing operation between October 1, 2007 and September 30, 2008, inclusive:

(i) Shall be considered a New Unit for the purpose of allocating CAIR NO_x Ozone Season allowances during the 2009 through 2013 control periods, and

(ii) Shall be considered a Cogeneration Unit, an Industrial Unit, a Reciprocating grate waste tire fired Unit or a Phase II Unit for the purpose of allocating CAIR NO_x Ozone Season allowances for the 2014 and later control periods; and

(D) A New Unit commencing operation after September 30, 2008:

(i) Shall be considered a New Unit for the period of time commencing with initial operation through operation during the sixth control period or portion thereof following date of initial operation, and

(ii) Shall be considered a Cogeneration Unit, an Industrial Unit, a Reciprocating grate waste tire fired Unit or a Phase II Unit for the purpose of allocating CAIR NO_x Ozone Season allowances for the seventh and later control periods.

(3) For New Units, the commissioner will determine and notify the Administrator of each New Unit's allocation of CAIR NO_x Ozone Season allowances by July 31 of the year for which the CAIR NO_x Ozone Season allowances are allocated.

(e) **CAIR NO_xOzone Season allowance allocations.**

(1) In applying the provisions of this subsection to a CAIR NO_x Ozone Season unit, such unit shall be categorized as a Phase I Unit, a Cogeneration Unit, an Industrial Unit, a New

Unit, a Reciprocating grate waste tire fired Unit or a Phase II Unit, as applicable. CAIR NO_x Ozone Season units meeting the definition of Cogeneration Unit shall not be categorized as a Phase I Unit, Industrial Unit, Reciprocating grate waste tire fired Unit or a Phase II Unit. CAIR NO_x Ozone Season units meeting the definition of Industrial Unit shall not be categorized as a Phase I Unit, Cogeneration Unit, Reciprocating grate waste tire fired Unit or a Phase II Unit.

(2) For the control period commencing May 1, 2009 and through the 2014 control period, the commissioner shall allocate among the owners or operators of CAIR NO_x Ozone Season units, other than New Units, up to two thousand two hundred twenty-three (2,223) CAIR NO_x Ozone Season allowances.

(3) For the control period commencing May 1, 2015 and each control period thereafter, the commissioner shall allocate among the owners or operators of CAIR NO_x Ozone Season units, other than New Units, up to two thousand two hundred eighty-nine (2,289) CAIR NO_x Ozone Season allowances.

(4) For the control period commencing May 1, 2009 and through the 2014 control period, the commissioner shall allocate among the owners or operators of New Units up to two hundred (200) CAIR NO_x Ozone Season allowances.

(5) For the control period commencing May 1, 2015 and each control period thereafter, the commissioner shall allocate among the owners or operators of New Units up to one hundred thirty-four (134) CAIR NO_x Ozone Season allowances.

(6) For the control period commencing May 1, 2009 and each control period thereafter, the commissioner shall allocate up to two hundred sixty-eight (268) CAIR NO_x Ozone Season allowances to Proponents in accordance with subsection (f) of this section.

(7) For the 2009, 2010, and 2011 control periods, the commissioner, in the following manner and order, shall:

(A) Allocate to the compliance account of each Cogeneration Unit, Industrial Unit and Reciprocating grate waste tire fired Unit the number of CAIR NO_x Ozone Season allowances equal to the product of the following equation:

$$\frac{(ER \times HI_{AVG})}{2000 \frac{lb}{ton}}$$

Where:

ER = The lowest of:

(i) the unit's NO_x RACT emission rate (in lb/mmBtu of heat input) during the 2005 and 2006 control periods, as required in section 22a-174-22 the Regulations of Connecticut State Agencies, or

(ii) the unit's average permitted NO_x emission rate (in lb/mmBtu of heat input) during the 2005 and 2006 control periods, or

(iii) the average of the unit's actual NO_x emission rate (in lb/mmBtu of heat input) during

the 2005 and 2006 control periods, unless the owner or operator submits a written request for the commissioner's review and approval, for the use of an alternate two-year control period during 2003 through 2006, including justification and data for such alternate two-year control period.

HI_{AVG} = the unit's actual average heat input (in mmBtu) during the 2005 and 2006 control periods, unless the owner or operator submits a written request for the commissioner's review and approval, for the use of an alternate two-year control period during 2003 through 2006, including justification and data for such alternate two-year control period

(B) Allocate to the compliance account of each Phase I Unit the number of CAIR NO_x Ozone Season allowances equal to the product of the following equation:

$$\frac{\left(1.2\frac{lb}{MWh}\times EO_U\right)}{2000\frac{lb}{ton}}$$

Where:

EO_U = each Phase I Unit's average net electricity output (in MWh) during the 2005 and 2006 control periods, unless the owner or operator submits a written request for the commissioner's review and approval, for the use of an alternate two-year control period during 2003 through 2006, including justification and data for such alternate two-year control period

(C) Allocate to the compliance account of each Phase II Unit the number of CAIR NO_x Ozone Season allowances equal to the product of the following equation:

$$\left(A-A_{ALLOCATED}\right)\times\left(\frac{EO_U}{EO_{TOTAL}}\right)$$

Where:

A = 2,223 CAIR NO_x Ozone Season allowances

$A_{ALLOCATED}$ = the total number of CAIR NO_x Ozone Season allowances allocated to Industrial Units, Cogeneration Units, Reciprocating grate waste tire fired Units and Phase I Units in a given year pursuant to subdivisions (7)(A) and (7)(B) of this subsection

EO_U = the Phase II Unit's average net electricity output (in MWh) for the 2005 and 2006 control periods, unless the owner or operator submits a written request for the commissioner's review and approval, for the use of an alternate two-year control period during 2003 through 2006, including justification and data for such alternate two-year control period

EO_{TOTAL} = the total average net electricity output (in MWh) of all Phase II Units during the 2005 and 2006 control periods, unless the owner or operator submits a written request for the commissioner's review and approval, for the use of an alternate two-year control

period during 2003 through 2006, including justification and data for such alternate two-year control period

(D) Any owner or operator may submit a written request for the commissioner's review and approval for the use of an alternate two-year control period pursuant to sections 22a-174-22c(e)(7)(A), (B) or (C) of the Regulations of Connecticut State Agencies if the average NO_x emission rate, average heat input or average net electricity output data from the CAIR NO_x Ozone Season unit during the 2005 and 2006 control periods was not representative for the following reasons:

(i) Transmission line failure,

(ii) Equipment failure, or

(iii) Any other reason related to unplanned outage.

(8) For the 2012 control period, and each control period thereafter, the commissioner, in the following manner and order, shall:

(A) Allocate to the compliance account of each Cogeneration Unit, Industrial Unit, and Reciprocating grate waste tire fired Unit the number of CAIR NO_x Ozone Season allowances equal to the product of the following calculation:

$$\frac{(ER \times HI_{AVG})}{2000 \frac{lb}{ton}}$$

Where:

ER = the lowest of:

(i) the unit's NO_x RACT emission rate (in lb/mmBtu of heat input), during the 5th and 6th control periods preceding the year of allocation, as required in section 22a-174-22 of the Regulations of Connecticut State Agencies, or

(ii) the unit's average permitted NO_x emission rate (in lb/mmBtu of heat input) during the 5th and 6th control periods preceding the year of allocation, or

(iii) the average of the unit's actual NO_x emission rate (in lb/mmBtu of heat input) during the 5th and 6th control periods preceding the year of allocation.

HI_{AVG} = the unit's actual average heat input (in mmBtu) during the 5th and 6th control periods preceding the year of allocation

(B) Allocate to the compliance account of each Phase I Unit and Phase II Unit the number of CAIR NO_x Ozone Season allowances equal to the product of the following equation:

$$(A - A_{ALLOCATED}) \times \left(\frac{EO_U}{EO_{TOTAL}} \right)$$

Where:

A = 2,223 CAIR NO_x Ozone Season allowances for 2009 through 2014; 2,289 CAIR NO_x Ozone Season allowances for 2015 and beyond

$A_{ALLOCATED}$ = the total number of CAIR NO_x Ozone Season allowances allocated to Industrial Units, Cogeneration Units and Reciprocating grate waste tire fired Units pursuant to subdivision (8)(A) of this subsection for the control period

EO_U = each Phase I and Phase II Unit's average net electricity output (in MWh) during the 5th and 6th control periods preceding the year of allocation

EO_{TOTAL} = the total average net electricity output (in MWh) of Phase I and Phase II Units during the 5th and 6th control periods preceding the year of allocation

(9) By July 31 of the 2009 control period and each control period thereafter, the commissioner shall:

(A) Allocate to the compliance account of each New Unit the number of CAIR NO_x Ozone Season allowances equal to the product of the following equation, subject to the limitation in subparagraph (B) of this subdivision:

$$\frac{(ER \times HIR \times HO_{CP})}{2000 \frac{lb}{ton}}$$

Where:

ER = the lower of:

(i) 0.12 lb/MMBtu, or

(ii) the unit's permitted NO_x emission rate (in lb/mmBtu of heat input) during the control period.

HIR = the lower of:

(i) the unit's maximum design heat input (in mmBtu/hr),

or

(ii) the unit's permitted heat input rate (in mmBtu/hr) during the control period.

HO_{CP} = the number of hours the unit operated during the prior control period, rounded to the nearest whole hour by rounding down for decimals less than 0.5, and rounded up for decimals of 0.5 or greater. If the unit did not operate during the prior control period, the number of hours shall be determined by the commissioner based on information submitted pursuant to subsection (i)(2) of this section

(B) For 2009 through 2014:

$$\text{IF } \sum \text{NUA}_{\text{CALCULATED}} < 200, \text{ THEN}$$

$$\text{A}_{\text{ALLOCATED-NU}} = \text{A}_{\text{NU}}$$

$$\text{IF } \sum \text{NUA}_{\text{CALCULATED}} > 200, \text{ THEN}$$

$$A_{ALLOCATED\text{-}NU} = A_{NU} \times \left(\frac{200}{\sum NUA_{CALCULATED}} \right)$$

rounded to the nearest whole allowance, as appropriate.

For 2015 and beyond:

$$\text{IF } \sum \text{NUA}_{\text{CALCULATED}} < 134, \text{ THEN}$$

$$\text{A}_{\text{ALLOCATED-NU}} = \text{A}_{\text{NU}}$$

$$\text{IF } \sum \text{NUA}_{\text{CALCULATED}} > 134, \text{ THEN}$$

$$A_{ALLOCATED\text{-}NU} = A_{NU} \times \left(\frac{134}{\sum NUA_{CALCULATED}} \right)$$

rounded to the nearest whole allowance, as appropriate.

Where:

$\sum \text{NUA}_{\text{CALCULATED}}$ = the total number of CAIR NO_x Ozone Season allowances calculated for New Units pursuant to subdivision (9)(A) of this subsection

$\text{A}_{\text{ALLOCATED-NU}}$ = the number of CAIR NO_x Ozone Season allowances the commissioner shall allocate to the compliance account of each New Unit

A_{NU} = the number of CAIR NO_x Ozone Season allowances calculated for each New Unit pursuant to subdivision (9)(A) of this subsection

The commissioner may adjust an allowance allocation under this subparagraph as necessary to not exceed ∑NUACALCULATED.

(C) Allocate to the compliance account of each Phase I and Phase II Unit the number of CAIR NO_x Ozone Season allowances, if any, equal to the product of the following equation:

For 2009 through 2014:

$$\left[(200 - A_{ALLOCATED\text{-}NU}) + (268 - A_{ALLOCATED\text{-}P}) \times \left(\frac{EO_U}{EO_{TOTAL}} \right) \right]$$

For 2015 and beyond:

$$\left[(134 - A_{ALLOCATED\text{-}NU}) + (268 - A_{ALLOCATED\text{-}P}) \times \left(\frac{EO_U}{EO_{TOTAL}} \right) \right]$$

Where:

$\text{A}_{\text{ALLOCATED-NU}}$ = The number of CAIR NO_x Ozone Season allowances allocated to New Units pursuant to subdivision (9)(A) of this subsection for the current year control period.

$\text{A}_{\text{ALLOCATED-P}}$ = The number of CAIR NO_x Ozone Season allowances allocated to Proponents pursuant to subsection (f) of this section for the current year control period.

EO_{U} = For the years 2009 through 2011, each Phase I and Phase II Unit's average net electricity output (in MWh) during the 2005 and 2006 control periods, unless the owner or operator submits a written request for the commissioner's review and approval, for the use of an alternate two-year control period during 2003 through 2006, including justification

and data for such alternate two-year control period. For the year 2012 and each year thereafter, each Phase I and Phase II Unit's average net electricity output (in MWh) during the 5th and 6th control periods preceding the year of allocation.

EO_{TOTAL} = For the years 2009 through 2011, the total average net electricity output (in MWh) of Phase I and Phase II Units during the 2005 and 2006 control periods, unless the owner or operator submits a written request for the commissioner's review and approval, for the use of an alternate two-year control period during 2003 through 2006, including justification and data for such alternate two-year control period. For the year 2012 and each year thereafter, the total average net electricity output (in MWh) of Phase I and Phase II Units during the 5th and 6th control periods preceding the year of allocation.

(D) Any owner or operator may submit a written request for the commissioner's review and approval for the use of an alternate two-year control period pursuant to Regulations of Connecticut State Agencies section 22a-174-22c(e)(9)(C) if average net electricity output data from the CAIR NO_x Ozone Season unit during the 2005 and 2006 control periods was not representative for the following reasons:

(i) Transmission line failure,

(ii) Equipment failure, or

(iii) Any other reason related to unplanned outage.

(10) In 2010, the commissioner may conduct a review of the CAIR NO_x Ozone Season allowance allocation methodology in this subsection.

(11) For the purposes of this subsection, the term "Cogeneration Unit" means a stationary, fossil-fuel-fired emission unit that serves a generator that generates electricity at a rated output of fifteen (15) megawatts or more by employing "cogeneration technology" as defined in section 16-1 of the Connecticut General Statutes.

(f) **Energy Efficiency and Renewable Energy Set-Aside (EERESA) Allocation.**

(1) Annual Allowance Allocations. For the control period commencing May 1, 2009 and each control period thereafter, the commissioner shall:

(A) Allocate to the compliance account of each Proponent of a REP generating electrical energy the number of CAIR NO_x Ozone Season allowances equal to the amount determined by the following equation, subject to the limitation in subparagraph (H) of this subdivision:

$$\frac{\left(EEG \times 1.5 \frac{lb}{MWh}\right)}{2000 \frac{lb}{ton}}$$

Where:

EEG = the net electrical energy generated by the REP (in MWh) during the control period

(B) Allocate to the compliance account of each Proponent of a REP generating useful net thermal energy the number of CAIR NO_x Ozone Season allowances equal to the amount determined by the following equation, subject to the limitation in subparagraph (H) of this

subdivision:

$$\frac{\left(TEG \times 0.44 \frac{lb}{mmBtu}\right)}{2000 \frac{lb}{ton}}$$

Where

TEG = the useful net thermal energy (in mmBtu) generated by the REP during the control period

(C) Allocate to the compliance account of each Proponent of an EEP saving electrical energy the number of CAIR NO_x Ozone Season allowances equal to the amount determined by the following calculation, subject to the limitation in subparagraph (H) of this subdivision:

$$\frac{\left(EES \times 1.5 \frac{lb}{MWh}\right)}{2000 \frac{lb}{ton}}$$

Where:

EES = the amount of electrical energy saved by the EEP (in MWh) during the control period, calculated according to subparagraphs (C)(i) and (C)(ii) of this subdivision

(i) Except as provided in subparagraph (C)(ii) of this subdivision, the amount of electrical energy saved shall be calculated by comparing the amount of electrical energy consumed during the control period in the calendar year preceding the year in which the application is submitted to the amount of electrical energy consumed during the EERESA Baseline Period. If monthly data for electrical energy consumed is not available, then electrical energy savings shall be calculated by comparing the electrical energy consumed during the calendar year preceding the year in which the application is submitted to the amount of electrical energy consumed during the calendar year in which the EERESA Baseline Period occurred, multiplied by five-twelfths, and

(ii) For the construction of a new building or addition that exceeds the energy efficiency requirements of the State Building Code, the amount of electrical energy saved shall be calculated by comparing the amount of electrical energy consumed during the first full control period immediately preceding the year the application is submitted to the amount of electrical energy that would have been consumed at the same occupancy level during the control period if the building or addition had been constructed according to the minimum energy efficiency requirements of the State Building Code. If monthly data for electrical

energy consumed is not available then electrical energy savings shall be calculated by comparing the electrical energy consumed during the calendar year preceding the year the application is submitted to the amount of electrical energy that would have been consumed at the same occupancy level during the calendar year if the building or addition had been constructed according to the minimum energy efficiency requirements of the State Building Code, multiplied by five-twelfths;

(D) Allocate to the compliance account of each Proponent of an EEP saving thermal energy the number of CAIR NO_x Ozone Season allowances equal to the amount determined by the following equation, subject to the limitation in subparagraph (H) of this subdivision:

$$\frac{\left(TES \times 0.44 \frac{lb}{mmBtu}\right)}{2000 \frac{lb}{ton}}$$

Where:

TES = the amount of thermal energy saved by the EEP (in mmBtu) during the control period calculated according to subparagraphs (D)(i) and (D)(ii) of this subdivision

(i) Except as provided in subparagraph (D)(ii) of this subdivision, the amount of thermal energy saved shall be calculated by comparing the amount of thermal energy consumed during the control period in the calendar year preceding the year in which the application is submitted to the amount of thermal energy consumed during the EERESA Baseline Period. If monthly data for thermal energy consumed is not available, then thermal energy savings shall be calculated by comparing the thermal energy consumed during the calendar year preceding the year in which the application is submitted to the amount of thermal energy consumed during the calendar year in which the EERESA Baseline Period occurred, multiplied by five-twelfths, and

(ii) For the construction of a new building or addition that exceeds the energy efficiency requirements of the State Building Code, the amount of thermal energy saved shall be calculated by comparing the amount of thermal energy consumed during the first full control period immediately preceding the year the application is submitted to the amount of thermal energy that would have been consumed at the same occupancy level during the control period if the building or addition had been constructed according to the minimum energy efficiency requirements of the State Building Code. If monthly data for thermal energy consumed is not available then thermal energy savings shall be calculated by comparing the thermal energy consumed during the calendar year immediately preceding the year the application is submitted to the amount of thermal energy that would have been consumed at the same occupancy level during the calendar year if the building or addition had been constructed according to the minimum energy efficiency requirements of the State Building Code, multiplied by five-twelfths;

(E) Allocate to the compliance account of each Proponent of an EEP saving thermal or

mechanical energy in a manufacturing process where energy consumption is measured on a unit of production basis, the number of CAIR NO_x Ozone Season allowances equal to the amount determined by the following equation, subject to the limitation in subparagraph (H) of this subdivision:

$$\frac{\left(\frac{EC_1}{PP_1}-\frac{EC_2}{PP_2}\right)\times PP_2\times NE_2\times\left[1+\left(\frac{NE_1-NE_2}{NE_1}\right)\right]}{2000\frac{lb}{ton}}$$

EC_1 = Energy consumed during the EERESA Baseline Period in mmBtu. If monthly data is not available for the control period, then EC_1 = the amount of energy consumed during any one of the three calendar years before the year in which the EEP was first put in use or first became operational, multiplied by five-twelfths

PP_1 = Units of product produced per EERESA Baseline Period. If monthly data is not available for the control period, then PP_1 = the units of product produced during any one of the three calendar years before the year in which the EEP was first put in use or first became operational, multiplied by five-twelfths

NE_1 = NO_x emitted during the consumption of energy, measured in pounds per mmBtu heat input during the EERESA Baseline Period. If monthly data is not available for the control period, then NE_1 = NO_x emitted during any one of the three calendar years before the year in which the EEP was first put in use or first became operational, multiplied by five-twelfths

EC_2 = Energy consumed during the control period in the year before the calendar year in which the application is submitted. If monthly data is not available for the control period, then EC_2 = energy consumed during the calendar year before the year in which the application is submitted, multiplied by five-twelfths

PP_2 = Units of product produced during the control period in the year before the calendar year in which the application is submitted. If monthly data is not available for the control period then PP_2 = units of product produced during the calendar year before the year in which the application is submitted, multiplied by five-twelfths

NE_2 = NO_x emitted during the consumption of energy, measured in pounds per mmBtu heat input during the control period in the year before the calendar year in which the application is submitted. If monthly data is not available for the control period then NE_2 = NO_x emitted during the calendar year before the year in which the application is submitted, multiplied by five-twelfths

(F) Allocate to the compliance account of each Proponent of a combined heat and power system with actual energy efficiency equal to or greater than 60%, as determined according to the equation in subparagraph (F)(i) of this subdivision, the number of CAIR NO_x Ozone Season allowances equal to the amount determined by the equation in subparagraph (F)(ii) of this subdivision, subject to the limitation in subparagraph (H) of this subdivision:

(i)

$$\text{Eff\%} = \frac{(NEO + UTO)}{GEI}$$

Where:

Eff% = Actual energy efficiency

NEO = Net electricity output of the system converted to British thermal units, (Btus) per unit of time

UTO = Net useful thermal energy output, in Btus per unit of time

GEI = Gross energy input, and

(ii)

$$\frac{NOx_{CONV} - NOx_{CHP}}{2000\frac{lb}{ton}}$$

Where:

$$NOx_{CONV} = \left\{\frac{\left[\frac{NEE \times \left(3412\frac{Btu}{kWh}\right)}{0.34} + \frac{NUTE}{0.8}\right]}{1{,}000{,}000\frac{Btu}{mmBtu}}\right\} \times 0.15\frac{lb}{mmBtu}$$

$$NOx_{CHP} = \left\{\frac{HI}{1{,}000{,}000\frac{Btu}{mmBtu}}\right\} \times NOx_{RATE}$$

NEE = the number of kilowatt-hours of net electrical energy generated by the system during the EERESA Baseline Period. If monthly data is not available for the EERESA Baseline Period, then the number of kilowatt-hours of net electrical energy generated by the system during any one of the three calendar years before the year in which the system first generated energy, multiplied by five-twelfths

NUTE = the number of British thermal units (Btu) of net useful thermal energy used by the system for space, water or industrial process heat during a control period. If monthly

data is not available for the control period, then NUTE = the number of British thermal units (Btu) of net useful thermal energy used by the system for space, water or industrial process heat during a calendar year, multiplied by five-twelfths

HI = the heat input of fuel used by the system to produce electrical or thermal energy during the EERESA Baseline Period. If monthly data is not available for the EERESA Baseline Period, then HI = the heat input of fuel used by the system to produce electrical or thermal energy during any one of the three calendar years before the year during which the system first generated energy, multiplied by five-twelfths

NOx_{RATE} = NO_x emitted in normal system operation by the project (lbs NO_x/mmBtu)

(G) Allocate to the compliance account of each Proponent of a QOP the number of CAIR NO_x Ozone Season allowances equal to an amount determined under subparagraphs (A) through (F), inclusive, of this subdivision, as may be applicable, or an amount determined by the commissioner, subject to the limitation in subparagraph (H) of this subdivision; and

(H)

$$\text{IF} \sum PA_{CALCULATED} \leq 268, \text{ THEN}$$

$$A_{ALLOCATED\text{-}P} = A_{p.}$$

$$\text{IF} \sum PA_{CALCULATED} > 268, \text{ THEN}$$

$$A_{ALLOCATED\text{-}P} = Ap \times \left(\frac{268}{\sum PA_{CALCULATED}} \right)$$

Where:

$\sum PA_{CALCULATED}$ = the total number of CAIR NO_x Ozone Season allowances calculated for Proponents pursuant to subparagraphs (A) through (G), as applicable, of this subdivision

$A_{ALLOCATED\text{-}P}$ = the number of CAIR NO_x Ozone Season allowances the commissioner shall allocate to the compliance account of each Proponent

A_P = the number of CAIR NO_x Ozone Season allowances calculated for each Proponent pursuant to subparagraphs (A) through (G), as applicable, of this subdivision

(2) Only REPs that were built and began generating energy and EEPs and QOPs that were built and in use, or installed and operational, on or after January 1, 2001 are eligible to receive CAIR NO_x Ozone Season allowances.

(3) Each Proponent shall apply to the commissioner to receive an allocation of CAIR NO_x Ozone Season allowances from the EERESA according to the following procedures:

(A) Prior to submitting an application to receive an allocation of CAIR NO_x Ozone Season allowances from the EERESA, each Proponent shall establish a general account in accordance with 40 CFR 96.351;

(B) All applications shall be submitted on the Department's Energy Efficiency and Renewable Energy Set-Aside Allowance Application form and shall include the following information:

(i) A description of the project that includes the installation date and the estimated

lifetime, a calculation of the amount of energy saved or generated and an explanation of the electricity monitoring and verification method,

(ii) If the project requires approval by the commissioner as an EEP or a QOP, a request for such approval,

(iii) Any additional information that the commissioner may request, and

(iv) A certification prepared and signed as required by section 22a-174-2a(a) of the Regulations of Connecticut State Agencies;

(C) In 2009, and each year thereafter, Proponents shall submit applications to the Department by February 1 of each year. The designated year in which the allowances are allocated shall correspond to the calendar year in which the application is submitted. The allocation shall be based on the energy saved or generated in the calendar year or, for projects aggregated over several years of operation, years preceding the year in which the application is submitted;

(D) A Proponent may request an allocation of allowances from the EERESA for a maximum of five (5) years at a time. A separate verification of operation and calculation of energy generation or energy savings shall be submitted annually for each year during which a REP generates energy or an EEP or a QOP saves energy;

(E) Only one Proponent may submit an application to be allocated allowances from the EERESA for a single REP, EEP or QOP in a single calendar year. If more than one Proponent submits an application for the same project for the same calendar year, the commissioner, at his or her discretion, may refuse to accept such applications; and

(F) A Proponent shall not submit an application under this subsection for energy generation or energy savings equivalent to less than one whole allowance. An EERESA Representative may submit an application that:

(i) Aggregates any combination of one or more REPs, EEPs or QOPs that individually save or generate energy in a single calendar year equivalent to less than one allowance but for which the energy savings or generation is equivalent to a minimum of one whole allowance when aggregated,

(ii) Aggregates two or more years of operation by a single REP, EEP or QOP that saves or generates energy equivalent to less than one allowance in a single year but for which the energy savings or generation is equivalent to a minimum of one whole allowance when aggregated, and

(iii) Aggregates two or more years of operation by any combination of one or more REPs, EEPs or QOPs that save or generate energy in a single calendar year equivalent to less than one whole allowance when aggregated but for which the energy savings or generation is equivalent to a minimum of one whole allowance when aggregated over two or more years of operation.

(4) Each Proponent shall measure the amount of energy saved or generated by each project according to subparagraph (A) or subparagraph (B) of this subdivision, as follows:

(A) (i) Adhering to the requirements of the International Performance Measurement and Verification Protocol, as revised in March 2002, DOE/GO-102002-1554 or the U.S.

Environmental Protection Agency's Conservation Verification Protocol; and

(ii) Adhering to the measurement and verification provisions of New England Power Pool's or NEPOOL's Operating Procedure 18 "Metering and Telemetering" or other provisions acceptable to the commissioner; and

(iii) Making the normalization adjustments for energy savings in accordance with the International Performance Measurement and Verification Protocol, as revised in March 2002, DOE/GO-102002-1554; or

(B) Using any applicable measurement and verification protocols submitted to and approved by the commissioner.

(5) Nothing in this subsection shall preclude the commissioner from reducing the number of allowances allocated to a REP, EEP or QOP to account for:

(A) Any NO_x emissions associated with the operation of a REP, EEP or QOP;

(B) Uncertainty in the measurement or verification of the actual emissions reductions or energy savings achieved by a project; and

(C) Any other circumstances identified by the commissioner in writing and provided to the Proponent.

(6) The Proponent of a prospective project may apply to the commissioner to receive an estimate of the number of allowances that the commissioner may award from the EERESA to the prospective project pursuant to the requirements of this subsection after the prospective project has operated for one ozone season. The following considerations shall apply to such a prospective project:

(A) An application made pursuant to this subdivision shall be made on a form prescribed by the commissioner and shall include the following information:

(i) The Proponent's full name and business address,

(ii) The name and telephone number for a person to contact regarding the application,

(iii) A description of the project that includes the estimated completion date, the calculation of the electricity anticipated to be saved or supplied and an explanation of the planned electricity monitoring and verification method,

(iv) Any other information requested by the permitting authority, and

(v) A certification prepared and signed as required by section 22a-174-2a(a) of the Regulations of Connecticut State Agencies;

(B) After completing the construction or installation of a prospective project for which the commissioner has made an estimate of allowances that may be allocated from the EERESA pursuant to this subdivision and after operating the project for one ozone season, the Proponent may apply to receive an actual allocation of allowances from the EERESA according to the requirements of subdivision (3) of this subsection; and

(C) A determination by the commissioner concerning an application submitted pursuant to this subdivision is not a binding commitment to allocate the estimated number of allowances from the EERESA to the Proponent after such project initiates operation.

(7) In 2010, the commissioner may conduct a review of the Energy Efficiency and Renewable Energy Set-Aside Allocation program, including, but not limited to, the

following factors:

(A) Success in facilitating energy efficiency and renewable energy projects;

(B) Impacts on CAIR NO_x Ozone Season allowance price and availability; and

(C) Appropriateness of the size of the EERESA.

(g) **CAIR NO_xOzone Season allowance use.**

(1) A CAIR NO_x Ozone Season allowance reserved, allocated, banked or traded is reserved, allocated, banked or traded subject to all applicable legal requirements and limitations, including, but not limited to, the requirements of this section and the provisions of sections 22a-1, 22a-5, 22a-6, 22a-174 and 22a-174c of the Connecticut General Statutes.

(2) Except as provided in subdivision (3) of this subsection and subsection (i) of this section, CAIR NO_x Ozone Season allowances cannot be used to meet or exceed the limitations of any permit, order or other applicable requirement.

(3) Reserved.

(4) Emission offsets required for new or modified major stationary sources of NO_x must be obtained in accordance with section 22a-174-3a of the Regulations of Connecticut State Agencies and are subject to the offset requirements of Section 173 of the Act. CAIR NO_x Ozone Season allowances may not be used as offsets, unless the commissioner permanently adjusts the state trading budget commensurate with the number of unused NO_x allowances approved for use as offsets and the owner or operator of a CAIR NO_x Ozone Season unit meets the following conditions:

(A) Reduces the emissions of such CAIR NO_x Ozone Season unit such that not all CAIR NO_x Ozone Season allowances allocated to that unit are used; and

(B) Satisfies the requirements of section 22a-174-3a(*l*)(5) of the Regulations of Connecticut State Agencies.

(5) If the owner or operator of a CAIR NO_x Ozone Season unit transfers emission reductions as offsets to sources of NO_x not participating in a CAIR NO_x Ozone Season allowance trading program administered by the Administrator under 40 CFR 51.123, such owner or operator shall surrender the CAIR NO_x Ozone Season allowances representing the emissions reductions in an amount equivalent to the emission reductions transferred off-budget.

(h) **Reserved**.

(i) **Allowance tracking and banking; monitoring; recordkeeping and reporting; and other requirements.**

(1) Each owner or operator and each designated representative of a CAIR NO_x Ozone Season unit that is subject to this section shall comply with each applicable requirement set forth in Table 22c-1 and incorporated by reference herein, as follows:

(A) Terms used in the incorporated sections of the CFR shall be defined as in 40 CFR 96.302, unless defined in subsection (a) of this section;

(B) To the extent that Table 22c-1 of this section refers to text in 40 CFR 96 that includes the Hg Budget Trading Program, CAIR SO_2 trading, CAIR NO_x Annual Trading Program, 40 CFR 96 subpart IIII and CAIR NO_x Ozone Season Opt-in Unit, such references are not

incorporated by reference;

(C) To the extent the federal regulations incorporated into this section refer to CAIR NO_x Ozone Season Allowance Allocations, Subpart EEEE and 40 CFR 96.340-42, such references shall be replaced with subsections (c), (d), (e) or (f) of this section, as appropriate; and

(D) To the extent the federal regulations incorporated into this section refer to 40 CFR 96.304, such references shall be replaced with subsection (b) of this section.

(2) Additional reporting requirements. Each owner and operator of a CAIR NO_x Ozone Season unit shall report the information identified in this subdivision:

(A) By October 31 of each year, the owner or operator of each CAIR NO_x Ozone Season unit shall report to the commissioner the metered net electricity output (in MWh) and useful steam output (in mmBtu) for the facility at which the unit is located for that year's control period. If data for steam output is not available, the owner or operator may report heat input providing useful steam output as a surrogate for useful steam output; and

(B) The owner or operator of each New Unit operating in the first control period following the date of commencement of operation shall by July 1 of that first control period report to the commissioner an estimate of the total number of hours of operation for the control period. The owner or operator of each New Unit operating in the second and later control periods following the date of commencement of operation shall by July 1 of such second and later control periods report to the commissioner the number of hours the unit operated during the prior control period, rounded to the nearest whole hour by rounding down for decimals less than 0.5, and rounded up for decimals of 0.5 or greater.

(3) Monitoring and related reporting requirements. The requirements of 40 CFR 96.374(d)(2)(ii) shall only apply to those owners and operators of CAIR NO_x Ozone Season units that are not subject to an Acid Rain emissions limitation and are not monitoring NO_x emissions using a Continuous emission monitoring system (CEMS).

(4) Additional excess emissions requirements. The Administrator shall deduct, for excess emissions in the 2008 control period determined according to section 22a-174-22b of the Regulations of Connecticut State Agencies, CAIR NO_x Ozone Season allowances allocated for the 2009 control period in the manner specified in 40 CFR 96.354(d) for excess emissions in the 2009 control period and beyond.

(5) Copies of the relevant sections of 40 CFR 96 incorporated by reference in this section are available by contacting:

Connecticut Department of Environmental Protection
Bureau of Air Management
Planning and Standards Division
79 Elm Street
Hartford, Connecticut 06106
(860) 424-3027

Table 22c-1

40 Code of Federal Regulations Part 96 Provisions Incorporated by Reference as of October 19, 2007	
Subpart AAAA-CAIR NO_xOzone Season Trading Program General Provisions	
Section 96.302	Definitions.
Section 96.303	Measurements, abbreviations, and acronyms.
Section 96.305	Retired unit exemption.
Section 96.306	Standard requirements.
Section 96.307	Computation of time.
Section 96.308	Appeal procedures.
Subpart BBBB-CAIR Designated Representative for CAIR NO_xOzone Season Sources	
Section 96.310	Authorization and responsibilities of CAIR designated representative.
Section 96.311	Alternate CAIR designated representative.
Section 96.312	Changing CAIR designated representative and alternate CAIR designated representative; changes in owners and operators.
Section 96.313	Certificate of representation.
Section 96.314	Objections concerning CAIR designated representative.
Section 96.315	Delegation by CAIR designated representative and alternate CAIR designated representative.
Subpart CCCC-Permits	
Section 96.320	General CAIR NO_x Ozone Season Trading Program permit requirements.
Section 96.321	Submission of CAIR permit applications.
Section 96.322	Information requirements for CAIR permit applications.
Section 96.323	CAIR permit contents and term.
Section 96.324	CAIR permit revisions.
Subpart FFFF-CAIR NO_xOzone Season Allowance Tracking System	
Section 96.351	Establishment of accounts.
Section 96.352	Responsibilities of CAIR authorized account representative.
Section 96.353	Recordation of CAIR NO_x Ozone Season allowance allocations.
Section 96.354	Compliance with CAIR NO_x emissions limitation.

Section 96.355	Banking.
Section 96.356	Account error.
Section 96.357	Closing of general accounts.
Subpart GGGG-CAIR NO_xOzone Season Allowance Transfers	
Section 96.360	Submission of CAIR NO_x Ozone Season allowance transfers.
Section 96.361	EPA recordation.
Section 96.362	Notification.
Subpart HHHH-Monitoring and Reporting	
Section 96.370	General requirements.
Section 96.371	Initial certification and recertification procedures.
Section 96.372	Out of control periods.
Section 96.373	Notifications.
Section 96.374 (Except as provided in subsection (i)(3) of this section)	Recordkeeping and reporting.
Section 96.375	Petitions.

(Adopted effective September 4, 2007; Adopted effective February 1, 2010; Amended December 22, 2016)

Sec. 22a-174-22e. Control of nitrogen oxides emissions from fuel-burning equipment at major stationary sources of nitrogen oxides.

(a) **Definitions**. For the purposes of this section, the following definitions apply. Any term not defined shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies:

(1) "Affected unit" means a fossil-fuel fired: (A) Stationary source that serves a generator with a nameplate capacity of 15 MW or more; or (B) Boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBtu/hr or more.

(2) "Boiler serving an electric generating unit" or "boiler serving an EGU" means a steam generating unit used for generating electricity.

(3) "Bumped-up RACT unit" means an emission unit located at a facility with a potential to emit NOx of not less than twenty-five (25) tons per year whereby such facility becomes a major stationary source of NOx on or after November 7, 2022 solely as a result of the amendment of the definition of "severe non-attainment area for ozone" in RCSA section 22a-174-1 effective on November 13, 2023.

(4) "Combined cycle combustion turbine" means an internal combustion engine fueled by liquid or gaseous fuel, in which blades are driven by combustion gases to generate mechanical energy in the form of a rotating shaft that drives an electric generator which recovers heat from the turbine exhaust gases to generate steam that drives a steam turbine which drives an additional electric generator.

(5) "Combined heat and power system" means a steam-generating unit that simultaneously produces both electric power and useful thermal energy from the same primary energy source.

(6) "Combustion turbine" means an internal combustion engine fueled by liquid or gaseous fuel, in which blades are driven by combustion gases to generate mechanical energy in the form of a rotating shaft that drives an electric generator or other industrial equipment.

(7) "Cyclone boiler" means a boiler that combusts fuel in a horizontal water-cooled cylinder before releasing the combustion gases into the boiler.

(8) "Daily block average" means the arithmetic mean of all hourly emission concentrations or rates recorded when an emission unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight).

(9) "Digester gas" means a mixture of primarily methane and carbon dioxide produced by a bacterial degradation of organic matter under anaerobic conditions and used as a fuel.

(10) "Duct burner" means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a combined cycle combustion turbine, to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.

(11) "Electric generating unit" or "EGU" means a combustion or steam generating source used for generating electricity that delivers all or part of its power to the electric power distribution grid for commercial sale.

(12) "Electricity supplier" means "electric supplier" as defined in section 16-1(a)(24) of the Connecticut General Statutes, and "municipal electric utility" as defined in section 7-233b(8) of the Connecticut General Statutes.

(13) "Emergency" means an unforeseeable condition that is beyond the control of the owner or operator of an emergency engine that:

(A) Results in an interruption of electrical power from the electricity supplier to the premises;

(B) Results in a deviation of voltage from the electricity supplier to the premises of three percent (3%) above or five percent (5%) below standard voltage in accordance with section 16-11-115 of the RCSA;

(C) Requires an interruption of electrical power from the electricity supplier to the premises enabling the owner or operator to perform emergency repairs; or

(D) Requires operation of the emergency engine to minimize damage from fire, flood, or any other catastrophic event, natural or man-made.

(14) "Emergency engine" means a stationary reciprocating engine or a combustion turbine that is used as a means of providing mechanical or electrical power only during the

following periods:

(A) Emergencies;

(B) Testing;

(C) Scheduled maintenance;

(D) When the facility owner or operator interrupts power to the facility to perform construction, maintenance or repair of the power distribution system for the facility or portion of the facility; or

(E) When the electricity supplier makes a scheduled interruption of power to the facility so that the electricity supplier may perform construction, maintenance or repair of the primary power distribution system for the facility. "Emergency engine" does not include a reciprocating engine or combustion turbine for which the owner or operator is a party to any other agreement to sell electrical power from such reciprocating engine or combustion turbine to an electricity supplier, or otherwise receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

(15) "Existing emission unit" means a source for which construction commenced prior to December 22, 2016.

(16) "Force majeure" means an event caused by circumstances beyond the control of the owner or operator of the emission unit subject to the event, its contractors, or any entity controlled by the emission unit subject to the event that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the owner or operator of the emission unit subject to the event.

(17) "Gas" or "gaseous fuel" means natural gas, propane, or any other fuel that is in the gaseous state under standard conditions, except for landfill gas or digester gas.

(18) "Industrial/commercial/institutional boiler" or "ICI boiler" means an indirect heat exchanger that heats water to supply heat to an industrial, commercial, or institutional operation.

(19) "Landfill gas" means a mixture of primarily methane and carbon dioxide produced by bacterial degradation of organic matter in a landfill and used as a fuel.

(20) "Non-ozone season" means the period beginning October 1 of a calendar year and ending on April 30 of the following calendar year, inclusive.

(21) "Other oil" means a fuel that is liquid at standard conditions and is not residual oil.

(22) "Ozone forecast" means the eight-hour ozone forecast issued as an air quality index one or more days in advance by the commissioner and posted on the Department's website or otherwise provided by the Department for the regulated community.

(23) "Ozone season" means the period beginning May 1 of a calendar year and ending on September 30 of the same year, inclusive.

(24) "Phase 1" means the first implementation phase of this section, beginning June 1, 2018 and ending May 31, 2023.

(25) "Phase 2" means the second implementation phase of this section, beginning June 1, 2023 and continuing thereafter.

(26) "Reciprocating engine" means an internal combustion engine in which a rotating crankshaft is driven by reciprocating motion of piston or pistons.

(27) "Relative accuracy test audit" or "RATA" means the CEMS performance test procedure conducted pursuant to 40 CFR 60 or 40 CFR 75.

(28) "RCSA" means Regulations of Connecticut State Agencies.

(29) "Simple cycle combustion turbine" means a combustion turbine that does not recover heat from its exhaust gases.

(30) "Temporary unit" means any gaseous or liquid fuel fired unit that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers or platforms. A unit is not a "temporary unit" if any one of the following conditions exists:

(A) The unit is attached to a foundation;

(B) The unit or a replacement remains at the location within the facility and performs the same or similar function for more than 12 consecutive months, provided a temporary unit that replaces a temporary unit at a location and performs the same or similar function will be included in calculating such consecutive time period;

(C) The unit is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least two years and operates at that facility for at least three months of the year; or

(D) The unit is moved from one location to another within the facility, but continues to perform the same or similar function and serve the same electricity, steam or hot water system in an attempt to circumvent the residence time specification of this definition.

(31) "Test stand" or "test cell" means the collection of all equipment and activities associated with the apparatus used for testing uninstalled engines.

(32) "Tune-up" means adjustments made to an emission unit to improve efficiency with respect to combustion operations.

(b) **Applicability.**

(1) This section applies to the owner or operator of the following listed emission units, including temporary units, located at a major stationary source for NOx:

(A) A boiler serving an electric generating unit;

(B) A simple cycle combustion turbine with a maximum rated capacity of five MMBtu/hr or more;

(C) A combined cycle combustion turbine with a maximum rated capacity of five MMBtu/hr or more;

(D) An ICI boiler with a maximum rated capacity of five MMBtu/hr or more;

(E) A reciprocating engine with a maximum rated capacity of three MMBtu/hr or more;

(F) Equipment that combusts fuel for heating materials, including air, and that has a maximum rated capacity of five MMBtu/hr or more; or

(G) Any other stationary fuel-burning equipment with a maximum rated capacity of five

MMBtu/hr or more.

(2) This section applies to the owner or operator of an emission unit that is subject to RCSA section 22a-174-22f and that meets one of the following criteria:

(A) Except for a "reclassified unit", described in subparagraph (C) of this subdivision, on any day on and after May 1, 2018, exceeds the applicable daily emission threshold of subsection (e)(2) of RCSA section 22a-174-22f;

(B) Is an affected unit; or

(C) Is a reclassified unit, as defined in RCSA 22a-174-22f(e)(5), and exceeds the applicable daily emission threshold of RCSA 22a-174-22f(e)(2) on or after May 1, 2026.

(c) **Exemptions and exceptions.**

(1) The requirements of this section shall not apply to a mobile source.

(2) The requirements of this section shall not apply to an emissions unit that is a type of incinerator for which an emissions guideline has been issued under Section 129 of the Act;

(3) The requirements of subsections (d)(6), (d)(14), (i), (l), (m) and (n) of this section shall not apply to any reciprocating engine that is:

(A) Used to test or provide emergency power or alternative power for safety-related structures, systems and components or other Nuclear Regulatory Commission-mandated systems at an electric generating facility licensed under 10 CFR 50; or

(B) Located at a hospital or other health care facility and used to meet standards of The Joint Commission or the National Fire Protection Association for emergency electrical power systems.

(4) The requirements of this section shall not apply to a reciprocating engine operated by an EAS Participant, as defined in 47 CFR 11.2, to meet the equipment operational readiness requirements of 47 CFR 11.35.

(5) Emergency engines are exempt from the following requirements of this section:

(A) The emissions limitations of subsection (d)(6);

(B) The tune-up requirements of subsection (i);

(C) The testing requirements of subsection (l);

(D) The monitoring requirements of subsection (m);

(E) The bumped-up RACT unit requirements of subsection (n); and

(F) If an owner or operator operates a model year 2013 or later emergency engine in compliance with the NOx emissions standards of 40 CFR 1039, Subpart B, such engine is exempt from the restriction of subsection (d)(14) of this section.

(6) The requirements of subsections (d), (i), (l), (m) and (n) of this section shall not apply to the owner or operator of a test stand or test cell, for emissions from the use of such test stand or test cell.

(7) The requirements of subsections (d)(3), (d)(4), (d)(6), (i), (l), (m) and (n) of this section shall not apply to the emission units listed in subparagraphs (A) and (B) of this subdivision. The owner or operator of an emission unit operating pursuant to this subdivision shall not operate such emission unit on any day for which the commissioner has forecast that ozone levels will be "moderate to unhealthy for sensitive groups," "unhealthy for

sensitive groups," "unhealthy" or "very unhealthy." If subsequent to the initial forecast of "moderate to unhealthy for sensitive groups" or greater, the forecast is revised to "moderate" or lower, the owner or operator is no longer prohibited from operating the emission unit for the remainder of that day. An owner or operator of an emission unit may rely on an ozone forecast of "moderate" or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of "moderate to unhealthy for sensitive groups" or greater shall not obligate the owner or operator to refrain from operation of the emission unit at the facility on the following day. Emission units that may operate pursuant to this exemption include the following:

(A) Fuel-burning equipment that is the subject of or used for research and development; or

(B) Compression-ignition reciprocating engines used exclusively for training personnel in the operation and maintenance of such engines aboard submarines.

(8) The requirements of subsections (d)(3), (i), (*l*), and (m) of this section shall not apply to a boiler that operates to supply steam used for the startup of a nuclear reactor or to supply hot water, heat or steam for the protection of facility systems when reactor-heated steam is not available at an electric generating facility licensed under 10 CFR 50.

(9) The requirements of this section shall not apply to non-road engines, as defined in 40 CFR 1068.30 or 40 CFR 89.2.

(10) The exemptions provided in subdivision (3) or (4) of this subsection are not available for a reciprocating engine or combustion turbine for which the owner or operator is party to an agreement to sell electrical power from such reciprocating engine or combustion turbine to an electricity supplier or an owner or operator who otherwise receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

(11) For an emission unit subject to this section pursuant to subsection (b)(2)(A) of this section, if the owner or operator requests from the commissioner and is granted an enforceable limitation on daily NOx emissions to a level below the applicable daily NOx threshold in RCSA section 22a-174-22f(e)(2), the emission unit is no longer subject to this section. Such an enforceable limitation shall be issued in an order or a modification to an existing permit.

(d) **Emissions limitations.**

(1) With the exception of the owner or operator of a bumped-up RACT unit, the owner or operator of an emission unit shall not cause or allow an emission unit to exceed the applicable emissions limitations specified in this subsection unless such owner or operator undertakes one of the following actions:

(A) Implements an alternative compliance mechanism as provided in subsection (g) of this section;

(B) Operates under a case-by-case RACT determination as provided in subsection (h) of this section; or

(C) Ceases operation as provided in subsection (f) of this section.

The owner or operator of a bumped-up RACT unit shall comply with the applicable Phase 2 emission limitations of this subsection in accordance with the applicable timing set forth in subsection (n) of this section.

(2) **Boilers serving EGUs.**

(A) For Phase 1, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a boiler serving an EGU:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Cyclone boiler	0.30	0.43	0.43	***
Other boiler	0.20	0.25	0.20	0.28

(B) For Phase 1, the following ozone season and non-ozone season emissions limitations apply to the owner or operator of a boiler serving an EGU that is also an affected unit. The averaging period for the ozone season limit is May 1 through September 30, and the averaging period for the non-ozone season limit is October 1 through April 30:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Ozone season limit (5 month average)	0.10	0.20	0.10	0.15
Non-ozone season limit (7 month average)	0.15	0.15	0.15	0.15

(C) For Phase 2, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a boiler serving an EGU:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Boiler serving an EGU	0.10	0.20	0.10	0.12

(D) For Phase 2, the following non-ozone season emissions limitation applies to the owner or operator of a boiler serving an EGU that is also an affected unit. The averaging

period for the non-ozone season limit is October 1 through April 30:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Non-ozone season limit (7 month average)	0.15	0.15	0.15	0.15

(3) **ICI Boilers.**

(A) For Phase 1, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of an ICI boiler:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)
Boilers with a maximum rated capacity greater than or equal to 5 MMBtu/hr	0.20	0.25	0.20

(B) For Phase 1, the following ozone season and non-ozone season emissions limitations apply to the owner or operator of an ICI boiler that is also an affected unit. The averaging period for the ozone season limit is May 1 through September 30, and the averaging period for the non-ozone season limit is October 1 through April 30:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)
Ozone season limit (5 month average)	0.10	0.20	0.15
Non-ozone season limit (7 month average)	0.15	0.15	0.15

(C) For Phase 2, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of an ICI boiler:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)
Boilers with a maxi	0.20	0.25	0.20

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)
mum rated capacity greater than or equal to 5 and less than 25 MMBtu/hr			
Boilers with a maximum rated capacity greater than or equal to 25 MMBtu/hr and less than 100 MMBtu/hr	0.05	0.20	0.10
Boilers with a maximum rated capacity of greater than or equal to 100 MMBtu/hr	0.10	0.20	0.15

(D) For Phase 2, the following non-ozone season emissions limitation applies to the owner or operator of an ICI boiler that is also an affected unit. The averaging period for the non-ozone season limit is October 1 through April 30:

	Gas-fired (lb/MMBtu)	Residual oil-fired (lb/MMBtu)	Other oil-fired (lb/MMBtu)
Non-ozone season limit (7 month average)	0.15	0.15	0.15

(4) **Simple cycle combustion turbines.**

(A) For Phase 1, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l)* of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a simple cycle combustion turbine:

	Gas-fired	Other oil-fired
Simple cycle combustion turbine	55 ppmvd	75 ppmvd

(B) For Phase 1, the following ozone season and non-ozone season emissions limitations apply to the owner or operator of a simple cycle combustion turbine that is also an affected unit. The averaging period for the ozone season limit is May 1 through September 30, and the averaging period for the non-ozone season limit is October 1 through April 30:

	Gas-fired	Other oil-fired
Ozone season limit (5 month average)	50 ppmvd or 0.18 lb/MMBtu	50 ppmvd or 0.19 lb/MMBtu
Non-ozone season limit (7 month average)	0.15 lb/MMBtu	0.15 lb/MMBtu

(C) For Phase 2, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a simple cycle combustion turbine:

	Gas-fired	Other oil-fired
Simple cycle combustion turbine	40 ppmvd	50 ppmvd

(D) For Phase 2, the following non-ozone season emissions limitation applies to the owner or operator of a simple cycle combustion turbine that is also an affected unit. The averaging period for the non-ozone season limit is October 1 through April 30:

	Other oil-fired
Non-ozone season limit (7 month average)	0.15 lb/MMBtu

(5) **Combined cycle combustion turbines.**

(A) For Phase 1, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a combined cycle combustion turbine:

	Gas-fired	Other oil-fired
Combined cycle combustion turbine	42 ppmvd	65 ppmvd

(B) For Phase 1, the following non-ozone season emissions limitations apply to the owner or operator of a combined cycle combustion turbine that is also an affected unit. The averaging period for the non-ozone season limit is October 1 through April 30:

	Gas-fired	Other oil-fired
Non-ozone season limit (7 month average)	0.15 lb/MMBtu	0.15 lb/MMBtu

(C) For Phase 2, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a combined cycle combustion turbine:

	Gas-fired	Other oil-fired
Combined cycle combustion turbine	25 ppmvd	42 ppmvd

(D) For Phase 2, the following non-ozone season emissions limitation applies to the owner or operator of a combined cycle combustion turbine that is also an affected unit. The averaging period for the non-ozone season limit is October 1 through April 30:

	Gas-fired	Other oil-fired
Non-ozone season limit (7 month average)	0.15 lb/MMBtu	0.15 lb/MMBtu

(6) **Reciprocating engines.**

(A) For Phase 1, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a reciprocating engine:

	Gas-fired (g/bk hp-hr)	Other oil-fired (g/bk hp-hr)	Landfill gas or digester gas, alone or fired with gas (g/bk hp-hr)
Reciprocating engine	2.5	8.0	2.5

(B) For Phase 2, the following emissions limitations, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system, apply to the owner or operator of a reciprocating engine:

	Gas-fired (g/bk hp-hr)	Other oil-fired (g/bk hp-hr)	Landfill gas or digester gas, alone or fired with gas (g/bk hp-hr)
Rich burn reciprocating engine	1.5	1.5	2.0
Lean burn reciprocating engine	1.5	2.3	2.0

(7) For an emission unit subject to this section pursuant to subsection (b)(2) of this section, the owner or operator shall comply with the emissions limitations identified in subdivisions (2) to (6), inclusive, of this subsection, as appropriate to the type of emission unit.

(8) For an emission unit of a unit type that is not identified in subdivisions (2) to (6), inclusive, or subdivision (9) of this subsection, which unit combusts fuel for heating materials including air, NOx emissions shall not exceed 180 ppmvd, corrected to 12% carbon dioxide, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system.

(9) For a fuel-burning emission unit of a type listed in subparagraphs (A) to (E), inclusive, of this subdivision that is fired by a fuel other than a fuel identified with an emissions limitation in subdivisions (2) to (6), inclusive, of this subsection, NOx emissions shall not exceed 0.3 lb/MMBtu for Phase 1 and 0.1 lb/MMBtu for Phase 2, based on a daily block average for an emission unit with a NOx CEM system, or as determined by NOx emission testing pursuant to subsection (*l*) of this section for an emission unit without a NOx CEM system:

(A) A boiler serving an EGU;

(B) A simple cycle combustion turbine;

(C) A combined cycle combustion turbine;

(D) An ICI boiler; or

(E) A reciprocating engine.

(10) The owner or operator of an emission unit that is capable of firing two or more fuels for which a standard is designated in this subsection shall not cause or allow emissions of NOx from such emission unit in excess of the following:

(A) For fuel-burning equipment that simultaneously fires two or more fuels, an emissions limitation calculated by:

(i) Multiplying the heat input of each fuel combusted by the emissions limitation in this subsection for the particular emission unit and fuel used,

(ii) Summing those products, and

(iii) Dividing the sum by the total heat input; or

(B) For fuel-burning equipment that is capable of interchangeably firing two or more fuels, the emissions limitation in this subsection for the particular equipment and fuel used.

(11) The following averaging times for emissions limitations shall be applicable to the owner or operator of an emission unit that has or is required to have a CEM system for NOx:

(A) For a non-ozone season emissions limitation, the period from October 1 to April 30, inclusive, including all periods of operation, except as provided in subsection (m)(3) of this section;

(B) For an ozone season emissions limitation, the period from May 1 to September 30, inclusive, including all periods of operation, except as provided in subsection (m)(3) of this section;

(C) For any other emissions limitation, a daily block average, including all periods of operation, except as provided in subsection (m)(3) of this section;

(12) An owner or operator of an emission unit that does not monitor NOx emissions

using a CEM system shall determine compliance with the emissions limitations of this subsection by performing NOx emission testing as required by subsection (*l*) of this section.

(13) The owner or operator of an emission unit for which construction commences on or after December 22, 2016 shall achieve compliance with the applicable Phase 2 emissions limitations of this section upon the date of initial operation.

(14) The owner or operator of an emergency engine shall not operate the emergency engine for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be "moderate to unhealthy for sensitive groups" or greater. If, subsequent to the initial forecast of "moderate to unhealthy for sensitive groups" or greater, the forecast is revised to "moderate" or lower, the owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine may rely on an ozone forecast of "moderate" or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of "moderate to unhealthy for sensitive groups" or greater shall not obligate the owner or operator to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the owner or operator of an emergency engine from this subdivision if such emergency engine is unattended and the testing is automated and cannot be modified from a remote location.

(15) For a combined cycle combustion turbine associated with a duct burner, the emissions from the turbine and duct burner system in the aggregate, or either the turbine or duct burner if the turbine or duct burner operates alone, shall at all times be less than the applicable emissions limitations in subsection (d)(5) of this section.

(16) Emissions limitations in subsections (d)(4) and (d)(5) of this section quantified in units of ppmvd shall be corrected to fifteen percent (15%) oxygen.

(17) If an emission unit may be subject to an emissions limitation for more than one type of emission unit, the emission unit is subject to the more stringent emissions limitation.

(18) If the electricity generating unit in a combined heat and power system is a reciprocating engine, the emissions limitations in subsection (d)(6) of this section apply and if the electricity generating unit in a combined heat and power system is a combustion turbine, the emissions limitations in subsection (d)(5) of this section apply.

(19) An owner or operator shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NOx emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period from October 1 through April 30, inclusive.

(20) An owner or operator shall calculate an emission unit's ozone season emission rate as the sum of the emission unit's NOx emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the emission unit's heat input while firing the applicable fuel during the period from May 1 through September 30, inclusive.

(e) "**Emergency" and "emergency engine"**.

On and after December 22, 2016, an individual permit or order issued to the owner or operator of an emission unit subject to this section that uses any of the following terms shall be read as follows:

(1) For "emergency" or "emergency engine" as defined in former RCSA section 22a-174-22, the owner or operator shall substitute "emergency" or "emergency engine" as defined in subsection (a) of this section;

(2) If the phrase "emergency engine as defined in RCSA section 22a-174-22" is used, the owner or operator shall substitute "emergency engine as defined in RCSA section 22a-174-22e(a);" and

(3) If the definition of "emergency engine" or "emergency" as defined in RCSA section 22a-174-22 is referenced, the owner or operator shall substitute the language of the applicable term as defined in subsection (a) of this section.

(f) **Permanent cessation of operation.**

(1) Except as provided in subdivision (2) of this subsection or subsection (n) of this section, the owner or operator of an existing emission unit subject to this section who is unable to comply with an emissions limitation of subsection (d) of this section at the beginning of the Phase 1 or the Phase 2 period and who has not submitted a plan pursuant to subsection (g) or a demonstration pursuant to subsection (h) of this section shall cease operation as of the first day of the Phase 1 or Phase 2 period, as applicable. The owner or operator of the emission unit shall also perform one of the following actions:

(A) If the emission unit is operating pursuant to a permit or registration, submit a request to the commissioner to revoke such permit or registration. Such a request shall be submitted no later than the first day of the Phase 1 or Phase 2 period, as applicable; or

(B) If the emission unit is not operating pursuant to a permit or registration, render the unit physically inoperable no later than the first day of the Phase 1 or Phase 2 period, as applicable, and submit a statement to the commissioner signed by a responsible official and certified in accordance with RCSA section 22a-174-2a stating that the emission unit has been rendered physically inoperable. Such a statement shall be submitted no later than the first day of the Phase 1 or Phase 2 period, as applicable.

(2) An owner or operator may enter into a legally enforceable cease operation agreement with the commissioner that includes a date no later than May 31, 2019 for a Phase 1 emissions limitation on which operation shall cease.

(g) **Compliance options.**

(1) Except as provided in subsection (n) of this section, the owner or operator of an existing emission unit subject to this section who is unable to operate the emission unit in accordance with an applicable emissions limitation of subsection (d) of this section and for which the owner or operator does not intend to submit a demonstration pursuant to subsection (h) of this section or cease operation as provided in subsection (f) of this section shall submit a plan to the commissioner to operate such emission unit in accordance with a compliance option identified in this subsection. Such a plan shall be submitted to the commissioner no later than September 1, 2017, for a Phase 1 emissions limitation, or

September 1, 2021, for a Phase 2 emissions limitation. A compliance option provided in this subsection shall be established by the commissioner through the issuance of an order or permit modification to the owner or operator of such emission unit or units.

(2) The owner or operator of a boiler serving an EGU may operate the boiler serving the EGU in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this section, unless otherwise specified. The actions specified in a compliance plan for a Phase 1 emissions limitation shall be implemented no later than June 1, 2018 or, for a Phase 2 emissions limitation, no later than June 1, 2023, unless otherwise specified in this subdivision:

(A) For a Phase 1 emissions limitation, reduce the lb/MMBtu average emission rate from the subject emission unit by at least 40% from a 2014 baseline average emission rate, as determined by a CEM system in accordance with former section 22a-174-22 of the RCSA and excluding periods of startup, shutdown or malfunction, or if the subject emission unit does not have a CEM system, by the most recent emission test performed pursuant to former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(B) For a Phase 2 emissions limitation, reduce the lb/MMBtu average emission rate from the subject emission unit by at least 40% from a 2019 baseline emission rate, as determined by a CEM system in accordance with subsection (m) of this section, or, if the subject emission unit does not have a CEM system, by the most recent emission test performed either pursuant to subsection (*l*) of this section or former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(C) For a Phase 1 emissions limitation, use existing, banked, NOx DERCs to comply with the applicable emissions limitations of subsection (d) of this section in accordance with an order or permit modification issued by the commissioner;

(D) For the Phase 1 emissions limitations in subparagraphs (A) and (B) of subsection (d)(2) of this section, accept an enforceable cap on mass emissions or hours of operation. The enforceable cap shall achieve the lower of a 40% reduction in subject emission unit 2014 allowable emissions or the average of the actual emissions for the two non-overlapping consecutive 12-month periods between January 1, 2014 and March 1, 2017 with the highest actual emissions, determined as follows:

(i) Measured by a CEM system in accordance with former section 22a-174-22 of the RCSA, or,

(ii) If the subject emission unit does not have a CEM system, calculated from the most recent emissions test performed pursuant to former section 22a-174-22 of the RCSA;

(E) For the Phase 2 emissions limitations in subparagraphs (C) and (D) of subsection (d)(2) of this section, accept an enforceable cap on mass emissions or hours of operation.

The enforceable cap shall achieve the lower of a 40% reduction in subject emission unit 2019 allowable emissions or the actual emissions over the consecutive 12-month period between June 1, 2018 and March 1, 2020 with the highest actual emissions, determined as follows:

(i) Measured by a CEM system in accordance with subsection (m) of this section, or,

(ii) If the subject emission unit does not have a CEM system, calculated from the most recent emissions test performed pursuant to former section 22a-174-22 of the RCSA or subsection (*l*) of this section, whichever applies;

(F) For a Phase 1 emissions limitation, commit to combust only gas if a permit or registration for the boiler serving an EGU allows the boiler to combust either gas or residual oil or other oil. This option is only available if operation on gas results in quantifiable annual NOx emissions equal to or less than the NOx emissions expected if the boiler serving an EGU operated in compliance with the applicable emissions limitations of subsection (d) of this section by combusting residual oil or other oil and gas. This compliance option shall be implemented no later than September 1, 2018. An owner or operator operating under this option may enter into an interruptible supply agreement with the gas supplier. If the supply of gas is curtailed in accordance with such agreement, the owner or operator may operate the emission unit on an alternative fuel for the period of the curtailment if the emission unit is operated to minimize emissions for such alternative fuel type; or

(G) Commit to retire another unit or units located at the same facility as the boiler serving an EGU. The unit or units to be retired shall cease operations no earlier than May 3, 2016 and no later than June 1, 2018 for a Phase 1 emissions limitation or no earlier than May 3, 2016 and no later than June 1, 2023 for a Phase 2 emissions limitation. This option shall result in a reduction in maximum allowable mass emissions equal to or greater than the NOx emissions reduction that would be achieved if:

(i) For a Phase 1 emissions limitation, the boiler serving an EGU and the retired unit or units complied with the applicable Phase 1 emissions limitations of subsection (d) of this section during the consecutive 12-month period between January 1, 2014 and March 1, 2017 with the highest aggregate actual emissions for the boiler serving an EGU and the unit or units to be retired, or,

(ii) For a Phase 2 emissions limitation, the boiler serving an EGU and the retired unit or units complied with the applicable Phase 2 emissions limitations in subsection (d) of this section during the consecutive 12-month period between June 1, 2018 and March 1, 2020 with the highest aggregate actual emissions for the boiler serving an EGU and the unit or units to be retired, and,

(iii) An emission reduction from a retirement used as a Phase 1 compliance option shall not be used as a Phase 2 compliance option.

(3) The owner or operator of an ICI boiler may operate the ICI boiler in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this

section unless otherwise specified. The actions specified in a compliance plan for a Phase 1 emissions limitation shall be implemented no later than June 1, 2018 or, for a Phase 2 emissions limitation, no later than June 1, 2023:

(A) For a Phase 1 emissions limitation, reduce the lb/MMBtu average emission rate from the subject emission unit by at least 40% from a 2014 baseline average emission rate, as determined by a CEM system in accordance with former section 22a-174-22 of the RCSA and excluding periods of startup, shutdown or malfunction, or, if the subject emission unit does not have a CEM system, by the most recent emission test performed pursuant to former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(B) For a Phase 2 emissions limitation, reduce the lb/MMBtu average emission rate from the subject emission unit by at least 40% from a 2019 baseline average emission rate, as determined by a CEM system in accordance with subsection (m) of this section, or, if the subject emission unit does not have a CEM system, by the most recent emission test performed either pursuant to subsection (l) of this section or former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(C) For a Phase 1 emissions limitation, use existing, banked, NOx DERCs to comply with the applicable emissions limitation of subsection (d) of this section in accordance with an order or permit modification issued by the commissioner;

(D) For the Phase 1 emissions limitations in subparagraphs (A) and (B) of subsection (d)(3) of this section, accept an enforceable cap on mass emissions or hours of operation. The enforceable cap shall achieve the lower of a 40% reduction in subject emission unit 2014 allowable emissions or the average of the actual emissions for the two non-overlapping consecutive 12-month periods between January 1, 2014 and March 1, 2017 with the highest actual emissions, determined as follows:

(i) Measured by a CEM system in accordance with former section 22a-174-22 of the RCSA, or,

(ii) If the subject emission unit does not have a CEM system, calculated from the most recent emissions test performed pursuant to former section 22a-174-22 of the RCSA;

(E) For the Phase 2 emissions limitations in subparagraphs (C) and (D) of subsection (d)(3) of this section, accept an enforceable cap on mass emissions or hours of operation. The enforceable cap shall achieve the lower of a 40% reduction in subject emission unit 2019 allowable emissions or the actual emissions over the consecutive 12-month period between June 1, 2018 and March 1, 2020 with the highest actual emissions, determined as follows:

(i) Measured by a CEM system in accordance with subsection (m) of this section, or,

(ii) If the subject emission unit does not have a CEM system, calculated from the most recent emissions test performed pursuant to former section 22a-174-22 of the RCSA or subsection (l) of this section, whichever applies;

(F) To satisfy the Phase 1 and Phase 2 emissions limitations of subsection (d)(3) of this section:

(i) Operate an ICI boiler subject to 40 CFR 63, Subpart DDDDD, as a "unit designed to burn gas 1 subcategory," as defined in 40 CFR 63.7575, and comply with the emissions limitation of subsection (d)(3)(A) of this section for operation on gas, or

(ii) Operate an ICI boiler subject to 40 CFR 63 Subpart JJJJJJ, as a "gas-fired boiler," as defined in 40 CFR 63.11237, and comply with the emissions limitation of subsection (d)(3)(A) of this section for operation on gas; or

(G) Commit to retire another unit or units located at the same facility as the ICI boiler. The unit or units to be retired shall cease operations no earlier than May 3, 2016 and no later than June 1, 2018 for a Phase 1 emissions limitation or no earlier than May 3, 2016 and no later than June 1, 2023 for a Phase 2 emissions limitation. This option shall result in a reduction in maximum allowable mass emissions equal to or greater than the NOx emissions reduction that would be achieved if:

(i) For a Phase 1 emissions limitation, the ICI boiler and the retired unit or units complied with the applicable Phase 1 emissions limitations of subsection (d) of this section during the consecutive 12-month period between January 1, 2014 and March 1, 2017 with the highest aggregate actual emissions for the ICI boiler and the unit or units to be retired, or,

(ii) For a Phase 2 emissions limitation, the ICI boiler and the retired unit or units complied with the applicable Phase 2 emissions limitations in subsection (d) of this section during the consecutive 12-month period between June 1, 2018 and March 1, 2020 with the highest aggregate actual emissions for the ICI boiler and the unit or units to be retired, and,

(iii) An emission reduction from a retirement used as a Phase 1 compliance option shall not be used as a Phase 2 compliance option.

(4) The owner or operator of a simple cycle combustion turbine may operate the simple cycle combustion turbine in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this section unless otherwise specified. The actions specified in a compliance plan for a Phase 1 emissions limitation shall be implemented no later than June 1, 2018 or, for a Phase 2 emissions limitation, no later than June 1, 2023:

(A) To satisfy the non-ozone season emissions limitations in subsections (d)(4)(B) and (d)(4)(D) of this section, install and operate water injection technology. Water injection technology shall be operated at all times that the simple cycle combustion turbine is operating, except as otherwise provided in a permit or order, and the water-to-fuel ratio shall be continuously monitored. The water-to-fuel ratio that is acceptable during operation shall be established during the initial performance test, or, if the emission unit has a CEM system, during the initial relative accuracy test audit;

(B) For a Phase 1 emissions limitation, reduce the lb/MMBtu average emission rate or ppmvd average emission concentration from the subject emission unit by at least 40% from a 2014 baseline average emission rate or concentration, as determined by a CEM system in

accordance with former section 22a-174-22 of the RCSA and excluding periods of startup, shutdown or malfunction, or, if the subject emission unit does not have a CEM system, by the most recent emission test performed pursuant to former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(C) For a Phase 2 emissions limitation, reduce the lb/MMBtu average emission rate or ppmvd average emission concentration from the subject emission unit by at least 40% from a 2019 baseline average emission rate or concentration, as determined by a CEM system in accordance with subsection (m) of this section, or, if the subject emission unit does not have a CEM system, by the most recent emission test performed either pursuant to subsection (*l*) of this section or former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(D) For a Phase 1 emissions limitation, use existing, banked, NOx DERCs to comply with the applicable emissions limitations of subsection (d) of this section in accordance with an order or permit modification issued by the commissioner;

(E) Reserved; or

(F) Commit to retire another unit or units located at the same facility as the simple cycle combustion turbine. The unit or units to be retired shall cease operations no earlier than May 3, 2016 and no later than June 1, 2018 for a Phase 1 emissions limitation or no earlier than May 3, 2016 and no later than June 1, 2023 for a Phase 2 emissions limitation. This option shall result in a reduction in maximum allowable mass emissions equal to or greater than the NOx emissions reduction that would be achieved if:

(i) For a Phase 1 emissions limitation, the simple cycle combustion turbine and the retired unit or units complied with the applicable Phase 1 emissions limitations of subsection (d) of this section during the consecutive 12-month period between January 1, 2014 and March 1, 2017 with the highest aggregate actual emissions for the simple cycle combustion turbine and the unit or units to be retired, or,

(ii) For a Phase 2 emissions limitation, the simple cycle combustion turbine and the retired unit or units complied with the applicable Phase 2 emissions limitations in subsection (d) of this section during the consecutive 12-month period between June 1, 2018 and March 1, 2020 with the highest aggregate actual emissions for the simple cycle combustion turbine and the unit or units to be retired, and,

(iii) An emission reduction from a retirement used as a Phase 1 compliance option shall not be used as a Phase 2 compliance option.

(5) The owner or operator of a combined cycle combustion turbine may operate the combined cycle combustion turbine in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this section unless otherwise specified. The actions specified in a compliance plan for a Phase 1 emissions limitation shall be

implemented no later than June 1, 2018 or, for a Phase 2 emissions limitation, no later than June 1, 2023, unless otherwise specified in this subdivision:

(A) For a Phase 1 emissions limitation, use existing, banked, NOx DERCs to comply with the applicable emissions limitation of subsection (d) of this section in accordance with an order or permit modification issued by the commissioner;

(B) Commit to combust only gas if a permit or registration for the combined cycle combustion turbine allows the turbine to combust either gas or other oil. This option is only available if operation on gas results in quantifiable annual NOx emissions equal to or less than the NOx emissions expected if the combined cycle combustion turbine operated in compliance with the applicable emissions limitations of subsection (d) of this section by combusting other oil and gas. For a Phase 1 emissions limitation, this option shall be implemented no later than September 1, 2018. An owner or operator operating under this option may enter into an interruptible supply agreement with the gas supplier. If the supply of gas is curtailed in accordance with such agreement, the owner or operator may operate the emission unit on an alternative fuel for the period of the curtailment if the emission unit is operated to minimize emissions for such alternative fuel type; or

(C) Commit to retire another unit or units located at the same facility as the combined cycle combustion turbine. The unit or units to be retired shall cease operations no earlier than May 3, 2016 and no later than June 1, 2018 for a Phase 1 emissions limitation or no earlier than May 3, 2016 and no later than June 1, 2023 for a Phase 2 emissions limitation. This option shall result in a reduction in maximum allowable mass emissions equal to or greater than the NOx emissions reduction that would be achieved if:

(i) For a Phase 1 emissions limitation, the combined cycle combustion turbine and the retired unit or units complied with the applicable Phase 1 emissions limitations of subsection (d) of this section during the consecutive 12-month period between January 1, 2014 and March 1, 2017 with the highest aggregate actual emissions for the combined cycle combustion turbine and the unit or units to be retired, or,

(ii) For a Phase 2 emissions limitation, the combined cycle combustion turbine and the retired unit or units complied with the applicable Phase 2 emissions limitations in subsection (d) of this section during the consecutive 12-month period between June 1, 2018 and March 1, 2020 with the highest aggregate actual emissions for the combined cycle combustion turbine and the unit or units to be retired, and,

(iii) An emission reduction from a retirement used as a Phase 1 compliance option shall not be used as a Phase 2 compliance option.

(6) The owner or operator of a reciprocating engine may operate the reciprocating engine in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation of subsection (d) of this section unless otherwise specified. The actions specified in a compliance plan for a Phase 1 emissions limitation shall be implemented no later than June 1, 2018 or, for a Phase 2 emissions limitation, no later than June 1, 2023:

(A) For a Phase 1 emissions limitation, reduce the g/bk hp-hr average emission rate from the subject emission unit by at least 40% from a 2014 baseline average emission rate, as determined by a CEM system in accordance with former section 22a-174-22 of the RCSA and excluding periods of startup, shutdown or malfunction, or, if the subject emission unit does not have a CEM system, by the most recent emission test performed pursuant to former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(B) For a Phase 2 emissions limitation, reduce the g/bk hp-hr average emission rate from the subject emission unit by at least 40% from a 2019 baseline average emission rate, as determined by a CEM system in accordance with subsection (m) of this section, or, if the subject emission unit does not have a CEM system, by the most recent emission test performed either pursuant to subsection (*l*) of this section or former section 22a-174-22 of the RCSA. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;

(C) For a Phase 1 emissions limitation, use existing, banked, NOx DERCs to comply with the applicable emissions limitations of subsection (d) of this section in accordance with an order or permit modification issued by the commissioner;

(D) Reserved; or

(E) Commit to retire another unit or units located at the same facility as the reciprocating engine. The unit or units to be retired shall cease operations no earlier than May 3, 2016 and no later than June 1, 2018 for a Phase 1 emissions limitation or no earlier than May 3, 2016 and no later than June 1, 2023 for a Phase 2 emissions limitation. This option shall result in a reduction in maximum allowable mass emissions equal to or greater than the NOx emissions reduction that would be achieved if:

(i) For a Phase 1 emissions limitation, the reciprocating engine and the retired unit or units complied with the applicable Phase 1 emissions limitations of subsection (d) of this section during the consecutive 12-month period between January 1, 2014 and March 1, 2017 with the highest aggregate actual emissions for the reciprocating engine and the unit or units to be retired, or,

(ii) For a Phase 2 emissions limitation, the reciprocating engine and the retired unit or units complied with the applicable Phase 2 emissions limitations in subsection (d) of this section during the consecutive 12-month period between June 1, 2018 and March 1, 2020 with the highest aggregate actual emissions for the reciprocating engine and the unit or units to be retired.

(iii) An emission reduction from a retirement used as a Phase 1 compliance option shall not be used as a Phase 2 compliance option.

(7) A plan to operate in accordance with a compliance option provided in this subsection shall include the following information:

(A) Legal name(s), address(es) and telephone number(s) of the owner and operator of the emission unit that is the subject of the compliance option. If the owner or operator is a

corporation or a limited partnership transacting business in Connecticut, provide the exact name as registered with the Secretary of the State;

(B) Location address of the premises where the emission unit is located;

(C) Make and model of the emission unit;

(D) Actual emissions data, if available, or the manufacturer's estimates of emissions, if available;

(E) Identification of the compliance option that is the subject of the request and an explanation of the actions that will be taken to operate in compliance with that option. If the chosen option requires physical modification of an emission unit at the facility, a schedule for the modifications;

(F) An estimate of the NOx emissions reductions achieved through compliance with the chosen option, including baseline emissions and the anticipated reduction achieved, and a comparison of the NOx emissions reductions achieved through compliance with the chosen option to the NOx emissions reductions that would have occurred if the emission unit complied with the emissions limitations in subsection (d) of this section; and

(G) Any other information requested by the commissioner upon reviewing the request.

(8) If a compliance option requires a new or modified permit pursuant to section 22a-174-3a of the RCSA, the owner or operator shall not commence an activity to implement the compliance option until the owner or operator has applied for and been issued the required permit or modification, except as otherwise authorized in section 22a-174-2a(e)(3)(C) of the RCSA subsequent to submission of a permit application.

(9) If the actions in a Phase 1 compliance plan do not require the owner or operator to either use NOx DERCs or apply for and obtain a permit under section 22a-174-3a of the RCSA, the owner or operator may take actions described in the plan no less than 60 days after submitting the plan.

(10) Any use of NOx DERCs for the purpose of complying with this section shall be:

(A) Consistent with the provisions of 40 CFR 51, Subpart U and the U.S. Environmental Protection Agency's "Improving Air Quality with Economic Incentive Programs," (EPA-452/R-01-001: January 2001); and

(B) Used within five calendar years of the year of generation.

(11) Unless otherwise specified in a permit or order, every compliance option provided in this subsection shall expire no later than May 1, 2028, by which date the subject emission unit shall comply with the applicable emissions limitations of this section or cease operation.

(h) **Case-by-case RACT demonstration.**

(1) An owner or operator may request the commissioner's approval for a case-by-case emissions limitation for an emission unit if the owner or operator demonstrates to the commissioner's satisfaction that an emissions limitation of subsection (d) of this section is not economically or technically feasible for the emission unit. In such a request for a case-by-case RACT determination, the owner or operator shall:

(A) Demonstrate that:

(i) The use of available emissions control technology is either technologically or

economically infeasible for the emission unit that is the subject of the demonstration,

(ii) Each compliance option designated in subsection (g) of this section is either technologically or economically infeasible for the emission unit that is the subject of the demonstration, and

(iii) For the purposes of this subsection, economic feasibility is determined on a dollar/ton basis, where any value determined using a method approved by the commissioner that is equal to or less than $13,118/ton NOx reduced for a Phase 1 demonstration or $13,635/ton NOx reduced for a Phase 2 demonstration is presumed economically feasible;

(B) Recommend a case-by-case RACT emissions limitation that represents the lowest emissions limitation reasonable for the emission unit. An owner or operator may also recommend additional actions that will reduce NOx emissions from stationary or mobile sources in Connecticut such as, but not limited to, an operational standard, work practices, a requirement to use air pollution control technology on another unit at the facility, a reduction in electric demand, or an energy efficiency improvement; and

(C) Calculate the NOx emission reduction achievable by implementation of the recommended emissions limitation and additional actions, if any, including the method used and a comparison of the NOx emissions reductions achieved, if any, through the recommended emissions limitation to the NOx emissions reductions that would have occurred if the emission unit complied with the emissions limitations in subsection (d) of this section. A case-by-case RACT demonstration shall provide a net air quality benefit including real and quantifiable reductions in NOx emissions from any facility in Connecticut under control of the owner or operator submitting the demonstration. A reduction in NOx emissions at a facility may be used in two or more case-by-case RACT demonstrations if the emission units that are the subject of the demonstrations and the facility at which the NOx emission reduction occurs are under control of the same owner or operator.

(2) Except as provided in subdivision (11) of subsection (n) of this section, a request for a case-by-case RACT determination shall be submitted to the commissioner for review no later than June 1, 2017 for a Phase 1 emissions limitation or January 1, 2021 for a Phase 2 emissions limitation. For a Phase 1 emissions limitation, an owner or operator who has submitted a request and case-by-case RACT demonstration may operate in accordance with the recommendations in the case-by-case RACT demonstration on and after June 1, 2018 to comply with the applicable Phase 1 emissions limitation if the commissioner has not approved the demonstration and if the actions recommended in a Phase 1 case-by-case RACT demonstration do not require the owner or operator to apply for and obtain a permit under RCSA section 22a-174-3a. Such an owner or operator may continue to operate in accordance with the recommendations in the demonstration until the earlier of the date the commissioner issues a final decision on the submitted demonstration or June 1, 2023.

(3) A case-by-case RACT emissions limitation or additional actions shall be established in a permit or order issued by the commissioner. Such case-by-case RACT emissions limitation shall apply to the subject emission unit or units and any other equipment located in Connecticut under the control of the owner or operator as described in the case-by-case

RACT demonstration and specified in the resulting permit or order. The commissioner shall submit such order or permit to the Administrator for approval.

(4) Unless otherwise specified in an order or permit, operations in accordance with an approved case-by-case demonstration shall expire no later than May 1, 2028, at which time the owner or operator shall operate the subject emission unit or units in compliance with the applicable emissions limitations and other requirements of this section or cease operation.

(5) Concurrent with the request for a case-by-case RACT determination, the owner or operator of the emission unit that is the subject of the case-by-case demonstration may request the imposition of a limitation on the potential NOx emissions or limitations on fuel use, raw materials processed or hours of operation for such emission unit for the commissioner's review and written approval. If approved by the commissioner, such limitation shall be imposed by permit or order. Such permit or order may also contain the commissioner's determination on the case-by-case RACT demonstration.

(6) A request for a case-by-case RACT determination submitted pursuant to this subsection shall be made on forms prescribed by the commissioner and performed according to procedures identified by the commissioner. A case-by-case RACT demonstration shall include the following steps:

(A) Identify all NOx emission control alternatives available for use on the emission unit that is the subject of the demonstration. Available control alternatives include lower emitting practices and processes such as the use of control techniques and work practices, use of add-on control technologies or improvement in the performance of installed control technologies, or a combination of lower emitting practices and processes and add-on control technologies;

(B) Eliminate infeasible options from further consideration after identifying the physical, chemical or engineering circumstance that would preclude successful use of the control option;

(C) Evaluate the control effectiveness of feasible alternatives in terms of NOx emissions reduced based on the potential emissions of the emission unit prior to use of the control alternative or the proposed emissions associated with the limitation requested pursuant to subdivision (5) of this subsection;

(D) Evaluate the cost of each feasible control alternative using a method approved by the commissioner. Cost shall be evaluated on an annual basis (8760 hours/year) at full load, unless the operation of the emission unit is subject to a practicably enforceable limitation in existence prior to the submission of the case-by-case RACT demonstration or the owner or operator has requested a limitation on NOx emissions or unit operation in accordance with subdivision (5) of this subsection; and

(E) Evaluate the cost effectiveness of each feasible control alternative on an annual basis as the cost in US dollars per ton of NOx reduced ($/ton), where NOx emissions prior to control and after control are based on either:

(i) The potential NOx emissions of the emission unit, as limited by any practicably

enforceable conditions in existence prior to the submission of the case-by-case RACT demonstration, or

(ii) The proposed NOx emissions of the emission unit based on a proposed limitation submitted in accordance with subdivision (5) of this subsection.

(7) The case-by-case RACT determination approved by the commissioner shall be no less stringent than the lowest NOx emission rate achievable from the emission unit using a cost effective control alternative determined in accordance with subdivision (6) of this subsection. A cost effective control alternative shall have a cost effectiveness, expressed in US dollars per ton of NOx reduced, equal to or less than the applicable threshold established in subparagraph (A) of subdivision (1) of this subsection.

(8) The net air quality benefit obtained from the case-by-case RACT determination shall not include the reduction in potential emissions of NOx associated with any proposed limitation requested in accordance with subdivision (5) of this subsection.

(9) The owner or operator submitting a request for a case-by-case RACT determination shall, prior to submitting the request:

(A) Publish notice of such request in a newspaper of general circulation in the area in which the emission unit operates; and

(B) Notify the chief elected official of the municipality in which the emission unit that is the subject of the request is located.

(10) The owner or operator shall include a copy of the notice as it appeared in the newspaper in the submission to the commissioner of the case-by-case RACT demonstration and a signed statement certifying that the owner or operator notified the chief elected official of the municipality in which the emission unit that is the subject of the request is located.

(11) The owner or operator submitting a request for a case-by-case RACT determination shall hold an informational hearing at which the owner or operator shall explain the purpose of and basis for the request, if a request to hold such hearing is made to the owner or operator no later than 14 days after the date of publication of the notice required pursuant to subdivision (9) of this subsection. The scheduled date for the hearing shall be no earlier than 30 days from the date of publication of the notice required pursuant to subdivision (9) of this subsection. If no request for the informational hearing is made within the 14 day period, the owner or operator may cancel the informational hearing. The notice shall identify the method and time for announcing that the hearing has been cancelled and provide a telephone number for the public to call to determine if the public hearing will occur as noticed or is cancelled. Within ten business days of the scheduled date of the public hearing, the owner or operator shall submit to the commissioner a certification that either the hearing was held as scheduled or that the hearing was cancelled for lack of a request. If a hearing is held, the certification shall be accompanied by a list of attendees and a summary of all comments made.

(12) The notice required pursuant to subdivision (9) of this subsection shall include the following information:

(A) A description of the demonstration sufficient for an interested person to understand

the technical and economic basis for the elements of the demonstration and the resulting request to the Department, including the emission rate requested and the emissions limitation that would apply to the emission unit for which the demonstration is made if the request is not granted;

(B) Identification of the name of the owner or operator; a description of the emission unit to which the demonstration applies including the make and model, capacity and purpose; the location of the emission unit; and the name, address and telephone number of a person from whom more information about the demonstration may be obtained;

(C) The name, telephone number and electronic mail address of an individual from whom an interested person may obtain a copy of the demonstration;

(D) The date, time and location of the public informational hearing to be held, if any request for such hearing is submitted by any member of the public within 14 days of the date of publication of the notice, and the address for the public to send a request for such hearing; and

(E) Indication that if no request for the informational hearing is made by a member of the public to the owner or operator by the date designated in the notice that such hearing will not occur and specification for the method and time for announcing that the hearing has been cancelled and a telephone number for the public to call to determine if the public hearing will occur as noticed or is cancelled.

(i) **Tune-up requirements.**

(1) Except as provided in subdivision (2) of this subsection or subdivision (12) of subsection (n) of this section, the owner or operator of an ICI boiler or reciprocating engine subject to this section shall conduct an inspection and tune-up of the emission unit a minimum of once per calendar year beginning with year 2018. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted under this section. The inspection and tune-up of the emission unit shall be conducted according to the manufacturer's recommended procedures, or, if the manufacturer's recommendations are no longer available, according to best available practices.

(2) The owner or operator of an emission unit that is subject to 40 CFR 60 or 40 CFR 63 and required to conduct a periodic tune-up by the applicable requirements of 40 CFR 60 or 40 CFR 63 may conduct tune-ups according to the schedule and procedures of the applicable requirements of 40 CFR 60 or 40 CFR 63. If the period between tune-ups in the applicable requirements of 40 CFR 60 or 40 CFR 63 is greater than 60 months, a tune-up shall be conducted at least once every 60 months.

(j) **Record keeping.**

(1) The owner or operator of an emission unit subject to this section shall retain all records and reports produced pursuant to this section for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut.

(2) Except as provided in subdivision (12) of subsection (n) of this section, the owner or operator of an emission unit subject to this section shall make and keep the following records on and after May 1, 2018:

(A) For an emergency engine not subject to 40 CFR 63 Subpart ZZZZ, records of total monthly operating hours of such engine, identifying the dates and operating hours of non-emergency use and the reason for non-emergency operation. For an emergency engine subject to 40 CFR 63 Subpart ZZZZ, records shall be those required by 40 CFR 63.6655;

(B) The date and work performed for repairs, replacement of parts and other maintenance;

(C) Records of the dates and times of all emission testing required by this section, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;

(D) For an emission unit that has or is required to have a CEM system for NOx:

(i) Records of all performance evaluations, calibration checks and adjustments on such monitor,

(ii) A record of maintenance performed,

(iii) All data necessary to complete the quarterly reports required under subsection (k)(3) of this section, and

(iv) Charts, electronically stored data, and printed records produced by such CEM system as needed to demonstrate compliance with the requirements of this section;

(E) For each tune-up, for each emission unit, conducted pursuant to subsection (i) of this section:

(i) The date on which the emission unit is tuned-up; the name, title and affiliation of the person performing the tune-up, and a description of work performed, and

(ii) The procedures used to inspect and perform adjustments;

(F) Copies of all documents submitted to the commissioner pursuant to this section; and

(G) Any other records or reports required by an order or permit issued by the commissioner pursuant to this section.

(k) **Reporting.**

(1) Not more than 60 days after the completion of emission tests conducted under subsection (*l*) of this section, the owner or operator of such emission unit shall submit a written report of the results of such testing to the commissioner.

(2) Not more than 60 days after the completion of a certification test conducted under the requirements of subsection (m) of this section, the owner or operator of such emission unit shall submit a written report of the results of such testing to the commissioner.

(3) The owner or operator of any emission unit that has or is required to have a CEM system for NOx shall submit to the commissioner, on forms provided by the commissioner, written quarterly reports of excess emissions and CEM system malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30 and October 30 of each year and shall include:

(A) All daily block average data, in a format acceptable to the commissioner, for the

three calendar month period ending the month before the due date of the report;

(B) The date and time of commencement and completion of each period of excess emissions;

(C) The magnitude and suspected cause of the excess emissions;

(D) Actions taken to correct the excess emissions;

(E) The date and time when each malfunction of the CEM system commenced and ended;

(F) Actions taken to correct each malfunction; and

(G) If no excess emissions or CEM system malfunctions occur during a quarter, the owner or operator shall indicate that no excess emissions or malfunctions occurred during the quarter.

(4) Upon written notice, the commissioner may require any owner or operator subject to this section to provide all hourly CEM data, in a format acceptable to the commissioner, for the three calendar month period identified in such written notice.

(*l*) **Emission testing.**

(1) The owner or operator of an emission unit subject to this section shall demonstrate compliance with the applicable emissions limitations of this section by one of the following means:

(A) Conducting periodic emissions testing in accordance with this subsection;

(B) For an emission unit subject to 40 CFR 60 Subpart KKKK, conducting periodic emissions testing in accordance with Subpart KKKK;

(C) For an emission unit subject to any other New Source Performance Standard in 40 CFR 60, conducting periodic emissions testing in accordance with the applicable New Source Performance Standard in 40 CFR 60, except as provided in subdivision (2) of this subsection with respect to frequency and subdivision (7) of this subsection with respect to load; or

(D) Installing and operating a CEM system for NOx in accordance with subsection (m) of this section.

(2) If an owner or operator is conducting testing in accordance with subdivision (1)(C) of this subsection and the applicable New Source Performance Standard does not identify a periodic test frequency, then the frequency of periodic emissions testing shall be determined in accordance with the provisions of subdivision (4) of this subsection for Phase 1 and the provisions of subdivision (5) of this subsection for Phase 2.

(3) The owner or operator of an emission unit constructed after December 22, 2016 shall conduct an initial emission test to demonstrate compliance with the Phase 2 emission limitations of this section no later than one hundred eighty (180) days after the emission unit commences operation.

(4) The owner or operator of an existing emission unit shall conduct an initial emissions test on a date during Phase 1 that is no more than 63 calendar months following the date of the last emission test performed pursuant to former section 22a-174-22(k) of the RCSA.

(5) The owner or operator of an existing emission unit subject to this section shall

conduct the emission test following the initial emissions test on a date after May 31, 2023 and no later than June 1, 2025. Subsequently, an owner or operator shall conduct emission tests within every 63 calendar months following the date the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier.

(6) Each emission test shall be conducted in accordance with section 22a-174-5 of the RCSA and compliance with the emissions limitations of this section shall be determined based on the average of three one-hour tests, each performed over a consecutive 60-minute period except as follows:

(A) As otherwise specified in an applicable New Source Performance Standard in 40 CFR 60; or

(B) If the commissioner determines that three one-hour tests are not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing where compliance with the emissions limitations of this section shall be determined based on the average of test runs shorter than a one-hour period. For the first time that an emissions unit is tested with a shorter than one-hour test run as provided in this subdivision, approval of the commissioner for a shorter than one-hour test run shall be received prior to testing by submission of a request to the commissioner at least 120 days prior to the scheduled testing. The request shall specify a test run duration and describe why a shorter time period is necessary.

(7) An owner or operator shall demonstrate compliance with the emissions limitations of this section using sampling and analytical procedures under 40 CFR 60, Appendix A or, for affected units, under 40 CFR 75, or under procedures in RCSA section 22a-174-5(d). Sampling shall be conducted when the emission unit is at normal operating temperature and, unless allowed otherwise by the commissioner in a permit or order, is operating at or above 90 percent of maximum capacity, except as follows:

(A) If the commissioner determines that operating at or above 90 percent of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at an alternative maximum capacity where compliance with the emissions limitations of subsection (d) of this section shall be determined based on operating at or above 90 percent of the alternative maximum capacity approved by the commissioner; and

(B) Any emission unit that has operated in excess of 100 percent of its maximum capacity at any time since the most recent performance test performed pursuant to this section shall be tested when the emission unit is operating at or above 90 percent of its highest operating rate since the most recent performance test performed pursuant to this section.

(8) If an emission unit owner or operator is unable to conduct scheduled emission testing required by this subsection due to force majeure, the owner or operator shall conduct the required emission testing as soon as practicable after the force majeure event occurs.

(m) **Monitoring.**

(1) The owner or operator of any emission unit that emits more than one hundred (100) tons of NOx from a single stack during any calendar year shall install, calibrate, maintain, operate and certify a CEM system for NOx for each such stack in accordance with section 22a-174-4a of the RCSA. For an emission unit subject to this section with a CEM system for NOx that was installed for any purpose prior to adoption of this section, the owner or operator shall calibrate, maintain, operate and certify such CEM system to demonstrate compliance with this section.

(2) If an owner or operator uses a CEM system to monitor NOx emissions, the owner or operator shall collect quality assured CEM data for all emission unit operating conditions. Data collection shall include periods of startup or shutdown, monitoring system malfunctions, out-of-control periods, while conducting maintenance or repairs, and periods of required monitoring system quality assurance or quality control activities, such as calibration checks and required zero and span adjustments.

(3) Emissions data used to determine compliance with the applicable emissions limitations of subsection (d) of this section shall not include data collected during the following periods:

(A) When the monitoring system is out-of-control as specified in the facility-specific monitoring plan;

(B) While conducting required monitoring system quality assurance or quality control activities, including calibration checks and required zero and span adjustments;

(C) While conducting maintenance or repairs of the monitoring system to prevent or correct a malfunction; or

(D) When the emission unit is not operating.

(4) The owner or operator shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of any CEM for NOx. Any such testing shall be conducted in accordance with a testing protocol approved by the commissioner. Any CEM for NOx shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in section 22a-174-4a of the RCSA and 40 CFR 60, Subpart A, Appendix B and Appendix F, or, for affected units, 40 CFR 75.

(5) Compliance with the seasonal limits of subsection (d) of this section shall be determined using emissions and operating data for the entire five-month period for an ozone season emissions limitation or for the entire seven-month period for a non-ozone season emissions limitation, except as follows:

(A) For the 2018 or 2023 ozone season, compliance shall be determined based on data collected June 1 through September 30; or

(B) If an emission unit commences initial operation during the ozone season or non-ozone season, compliance shall be determined based only on the portion of the season in which the unit operated.

(n) **Compliance by bumped-up RACT units.**

(1) The owner or operator of a bumped-up RACT unit shall comply with the applicable Phase 2 emissions limitations of subsection (d) of this section no later than November 7, 2025.

(2) The owner or operator of a bumped-up RACT unit who is unable to comply with the applicable Phase 2 emissions limitation of subsection (d) of this section as of November 7, 2025 and who has not submitted a plan pursuant to subdivision (3) of this subsection or a demonstration pursuant to subdivision (11) of this subsection shall:

(A) Cease operation no later than November 7, 2025; and

(B) Perform one of the following actions:

(i) If the bumped-up RACT unit is operating pursuant to a permit or registration, submit a request to the commissioner to revoke such permit or registration. Such a request shall be submitted no later than November 7, 2025, or

(ii) If the bumped-up RACT unit is not operating pursuant to a permit or registration, render the unit physically inoperable no later than November 7, 2025 and submit a statement to the commissioner signed by a responsible official and certified in accordance with RCSA section 22a-174-2a stating that the emission unit has been rendered physically inoperable. Such a statement shall be submitted no later than November 7, 2025.

(3) The owner or operator of a bumped-up RACT unit who is unable to operate the emission unit in accordance with an applicable Phase 2 emissions limitation of subsection (d) of this section and for which the owner or operator does not intend to submit a demonstration pursuant to subdivision (11) of this subsection or cease operation as provided in subdivision (2) of this subsection shall submit a plan to the commissioner to operate such bumped-up RACT unit in accordance with a compliance option identified in subdivision (4), (5), (6), (7) or (8) of this subsection. Such a plan shall be submitted to the commissioner no later than September 1, 2024 and shall include all information specified in subdivision (7) of subsection (g) of this section. A compliance option provided in this subsection shall be established by the commissioner through the issuance of an order, permit or permit modification to the owner or operator of such bumped-up RACT unit.

(4) The owner or operator of a bumped-up RACT unit that is a boiler serving an EGU may operate the boiler serving the EGU in compliance with one of the options in subparagraph (B), (E) or (G) of subdivision (2) of subsection (g) of this section in lieu of complying with the applicable Phase 2 emissions limitation of subsection (d) of this section. The actions specified in a compliance plan shall be implemented no later than November 7, 2025. Any owner or operator that complies with this subsection by implementing the option in subsection (g)(2)(G) of this section, shall cease operation of the unit or units to be retired no earlier than October 7, 2022 and no later than November 7, 2025.

(5) The owner or operator of a bumped-up RACT unit that is an ICI boiler may operate the ICI boiler in compliance with one of the options listed in subparagraph (B), (E), (F) or (G) of subdivision (3) of subsection (g) of this section in lieu of complying with the applicable Phase 2 emissions limitation of subsection (d) of this section. The actions specified in a compliance plan shall be implemented no later than November 7, 2025. Any

owner or operator that complies with this subsection by implementing the option in subsection (g)(3)(G) of this section, shall cease operation of the unit or units to be retired no earlier than October 7, 2022 and no later than November 7, 2025.

(6) The owner or operator of a bumped-up RACT unit that is a simple cycle combustion turbine may operate the simple cycle combustion turbine in compliance with any of the options listed in subparagraph (A), (C) or (F) of subdivision (4) of subsection (g) of this section in lieu of complying with the applicable Phase 2 emissions limitation of subsection (d) of this section. The actions specified in a compliance plan shall be implemented no later than November 7, 2025. Any owner or operator that complies with this subsection by implementing the option in subsection (g)(4)(F) of this section, shall cease operation of the unit or units to be retired no earlier than October 7, 2022 and no later than November 7, 2025.

(7) The owner or operator of a bumped-up RACT unit that is a combined cycle combustion turbine may operate the combined cycle combustion turbine in compliance with subparagraph (B) or (C) of subdivision (5) of subsection (g) of this section in lieu of complying with the applicable Phase 2 emissions limitation of subsection (d) of this section. The actions specified in a compliance plan shall be implemented no later than November 7, 2025. Any owner or operator that complies with this subsection by implementing the option in subsection (g)(5)(C) of this section, shall cease operation of the unit or units to be retired no earlier than October 7, 2022 and no later than November 7, 2025.

(8) The owner or operator of a bumped-up RACT unit that is a reciprocating engine may operate the reciprocating engine in compliance with subparagraph (B) or (E) of subdivision (6) of subsection (g) of this section in lieu of complying with the applicable Phase 2 emissions limitation of subsection (d) of this section. The actions specified in a compliance plan shall be implemented no later than November 7, 2025. Any owner or operator that complies with this subsection by implementing the option in subsection (g)(6)(E) of this section, shall cease operation of the unit or units to be retired no earlier than October 7, 2022 and no later than November 7, 2025.

(9) Any owner or operator of a bumped-up RACT unit that implements a compliance option as provided in subdivision (4), (5), (6), (7) or (8) of this subsection in lieu of complying with the applicable Phase 2 emissions limitation of subsection (d) of this section shall comply with subdivision (8) of subsection (g) of this section, as necessary.

(10) Unless otherwise specified in a permit or order, every compliance option provided in subdivisions (4) to (8), inclusive, of this subsection shall expire no later than May 1, 2028, by which date the subject emission unit shall comply with the applicable Phase 2 emissions limitation of subsection (d) of this section or cease operation.

(11) Any owner or operator of a bumped-up RACT unit may request the commissioner's approval for a case-by-case emissions limitation for a bumped-up RACT unit as provided in subsection (h) of this section. For a bumped-up RACT unit demonstration, economic feasibility as provided in subsection (h)(1)(A)(iii) of this section shall use a $13,635/ton NOx reduced threshold. A request for a case-by-case RACT demonstration shall be

submitted no later than June 1, 2024. As provided in subsection (h)(4) of this section, operation of a bumped-up RACT unit in accordance with a case-by-case demonstration shall expire no later than May 1, 2028, unless otherwise specified in an order or permit.

(12) Any owner or operator of a bumped-up RACT unit shall:

(A) Comply with the tune-up requirements of subsection (i) of this section beginning with year 2025;

(B) Make and keep records as required in subsection (j) of this section beginning November 7, 2025;

(C) Make reports as required in subsection (k) of this section;

(D) Conduct an initial emission test on a date after November 7, 2025 but no later than November 7, 2026. Emission testing shall be conducted as provided in subsection (*l*) of this section; and

(E) Comply with the monitoring requirements of subsection (m) of this section.

(Effective December 22, 2016; Amended October 8, 2019; Amended October 28, 2022; Amended November 13, 2023)

Sec. 22a-174-22f. High daily NOx emitting units at non-major sources of NOx.

(a) **Definitions.** For the purposes of this section, the following definitions apply. Any term not defined shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies:

(1) "Affected unit" means a fossil fuel-fired:

(A) Stationary source that serves a generator with a nameplate capacity of 15 MW or more; or

(B) Boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBtu/hr or more.

(2) "Boiler serving an electric generating unit" or "boiler serving an EGU" means a steam generating unit used for generating electricity.

(3) "Combined cycle combustion turbine" means an internal combustion engine fueled by liquid or gaseous fuel, in which blades are driven by combustion gases to generate mechanical energy in the form of a rotating shaft that drives an electric generator which recovers heat from the turbine exhaust gases to generate steam that drives a steam turbine which drives an additional electric generator.

(4) "Combined heat and power system" means a steam-generating unit that simultaneously produces both electric power and useful thermal energy from the same primary energy source.

(5) "Combustion turbine" means an internal combustion engine fueled by liquid or gaseous fuel, in which blades are driven by combustion gases to generate mechanical energy in the form of a rotating shaft that drives an electric generator or other industrial equipment.

(6) "Electric generating unit" or "EGU" means a combustion or steam generating source used for generating electricity that delivers all or part of its power to the electric power distribution grid for commercial sale.

(7) "Electricity supplier" means "electric supplier" as defined in section 16-1(a)(24) of the Connecticut General Statutes, and "municipal electric utility" as defined in section 7-233b(8) of the Connecticut General Statutes.

(8) "Emergency" has the same meaning as provided in section 22a-174-22e of the Regulations of Connecticut State Agencies.

(9) "Emergency engine" has the same meaning as provided in section 22a-174-22e of the Regulations of Connecticut State Agencies

(10) "Gas" or "gaseous fuel" means natural gas, propane, or any other fuel that is in the gaseous state under standard conditions, except for landfill gas or digester gas.

(11) "Industrial/commercial/institutional boiler" or "ICI boiler" means an indirect heat exchanger that heats water to supply heat to an industrial, commercial, or institutional operation.

(12) "Other oil" means a fuel that is liquid at standard conditions and is not residual oil.

(13) "Ozone forecast" means the eight-hour ozone forecast issued as an air quality index one or more days in advance by the commissioner and posted on the Department's website or otherwise provided by the Department for the regulated community.

(14) "Reciprocating engine" means an internal combustion engine in which a rotating crankshaft is driven by reciprocating motion of piston or pistons.

(15) "RCSA" means Regulations of Connecticut State Agencies.

(16) "Simple cycle combustion turbine" means a combustion turbine that does not recover heat from its exhaust gases.

(17) "Solid fuel" means coal, other solid fossil fuel, wood or other solid biomass.

(18) "Tune-up" means adjustments made to an emission unit to improve efficiency with respect to combustion operations.

(b) **Applicability.**

(1) This section applies to the owner or operator of a boiler serving an EGU or an ICI boiler located at a facility that is not a major stationary source of NOx and that meets any one of the following criteria:

(A) The boiler is gas-fired and has a maximum rated capacity:

(i) Greater than 76 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 38 MMBtu/hr and is located in a severe non-attainment area for ozone;

(B) The boiler is residual oil-fired and has a maximum rated capacity:

(i) Greater than 30 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 15 MMBtu/hr and is located in a severe non-attainment area for ozone;

(C) The boiler is other oil-fired and has a maximum rated capacity:

(i) Greater than 72 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 36 MMBtu/hr and is located in a severe non-attainment area for ozone; or

(D) The boiler is solid fuel-fired and has a maximum rated capacity:

(i) Greater than 6 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 3 MMBtu/hr and is located in a severe non-attainment area for ozone.

(2) This section applies to the owner or operator of a reciprocating engine located at a facility that is not a major stationary source of NOx and that meets any one of the following criteria:

(A) The engine is gas-fired and has a maximum rated capacity:

(i) Greater than 4 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 2 MMBtu/hr and is located in a severe non-attainment area for ozone; or

(B) The engine is other oil-fired and has a maximum rated capacity:

(i) Greater than 2 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 1 MMBtu/hr and is located in a severe non-attainment area for ozone.

(3) This section applies to the owner or operator of a simple cycle combustion turbine located at a facility that is not a major stationary source of NOx and that meets any one of the following criteria:

(A) The turbine is gas-fired and has a maximum rated capacity:

(i) Greater than 32 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 16 MMBtu/hr and is located in a severe non-attainment area for ozone; or

(B) The turbine is other oil-fired and has a maximum rated capacity:

(i) Greater than 12 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 6 MMBtu/hr and is located in a severe non-attainment area for ozone.

(4) This section applies to the owner or operator of a combined cycle combustion turbine located at a facility that is not a major stationary source of NOx and that meets any one of the following criteria:

(A) The turbine is gas-fired and has a maximum rated capacity:

(i) Greater than 32 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 16 MMBtu/hr and is located in a severe non-attainment area for ozone;

(B) The turbine is other oil-fired and has a maximum rated capacity:

(i) Greater than 12 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 6 MMBtu/hr and is located in a severe non-attainment area for ozone; and

(C) When determining the maximum rated capacity of a combined cycle combustion

turbine, the owner or operator shall include the maximum capacity of all supplemental burners.

(5) This section applies to the owner or operator of a fuel-burning emission unit located at a facility that is not a major stationary source of NOx and that combusts fuel for heating materials including air if any one of the following criteria are met:

(A) The emission unit is gas-fired and has a maximum rated capacity:

(i) Greater than 76 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 38 MMBtu/hr and is located in a severe non-attainment area for ozone; or

(B) The emission unit is other oil-fired and has a maximum rated capacity:

(i) Greater than 72 MMBtu/hr and is located in a serious non-attainment area for ozone, or

(ii) Greater than 36 MMBtu/hr and is located in a severe non-attainment area for ozone.

(6) This section applies to any affected unit located at a source that is not a major stationary source of NOx.

(7) If a dual-fuel unit is subject to this section for one fuel based on subdivisions (1) to (5), inclusive, of this subsection, the emission unit is subject to this section for all operations.

(c) **Exemptions.**

(1) The following emission units are exempt from this section:

(A) An emission unit that is located at a major source of NOx;

(B) An emission unit that is a type of incinerator for which an emissions guideline has been issued under Section 129 of the Act;

(C) An emission unit used to test and provide emergency power or alternative power for safety-related structures, systems, and components or other Nuclear Regulatory Commission mandated systems at an electric generating facility licensed under 10 CFR 50;

(D) An emission unit that is located at a hospital or health care facility and that is used to meet standards of The Joint Commission or the National Fire Protection Association for emergency electrical power systems;

(E) A reciprocating engine operated by an EAS Participant, as defined in 47 CFR 11.2, to meet the equipment operational readiness requirements of 47 CFR 11.35; or

(F) A non-road engine, as defined in 40 CFR 1068.30 or 40 CFR 89.2

(2) The exemptions provided in subparagraphs (C), (D) and (E) of subdivision (1) of this subsection are not available to the owner or operator of either:

(A) A reciprocating engine or combustion turbine for which the owner or operator is party to an agreement to sell electrical power from such reciprocating engine or simple cycle combustion turbine to an electricity supplier; or

(B) A reciprocating engine or combustion turbine for which the owner or operator receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

(3) The owner or operator of an emission unit that is operating in accordance with RCSA

section 22a-174-22e pursuant to subsection (e)(2) of this section shall no longer be subject to the requirements of subsections (f), (g) and (h) of this section.

(d) **Emergency engines.**

(1) The owner or operator of an emergency engine subject to this section shall maintain records as required by subsection (g) of this section and comply with subdivisions (2) and (3) of this subsection. No other provisions of this section apply to the owner or operator of an emergency engine.

(2) The owner or operator of an emergency engine shall not operate the emergency engine for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be "moderate to unhealthy for sensitive groups" or greater. If, subsequent to the initial forecast of "moderate to unhealthy for sensitive groups" or greater, the forecast is revised to "moderate" or lower, the owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine may rely on an ozone forecast of "moderate" or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of "moderate to unhealthy for sensitive groups" or greater shall not obligate the owner or operator to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the owner or operator of an emergency engine from this subdivision if such emergency engine is unattended and the testing is automated and cannot be modified from a remote location.

(3) If an owner or operator operates a model year 2013 or later emergency engine in compliance with the engine NOx emissions standards of 40 CFR 1039, subpart B, such engine is exempt from the restriction of subdivision (2) of this subsection.

(e) **Emission units that are not emergency engines.**

(1) The owner or operator of an emission unit subject to this section that is not an emergency engine or an affected unit shall comply with the record keeping requirements of subsection (g) of this section; the reporting requirements of subsection (h) of this section; and, if the emission unit is an ICI boiler or a reciprocating engine, the tune-up requirements of subsection (f) of this section, except as follows:

(A) If the owner or operator of an emission unit subject to this section that is not an emergency engine or is not an affected unit requests an enforceable emission limitation to a level below the daily NOx emission thresholds of subdivision (2) of this subsection and the commissioner grants such a request, the owner or operator is no longer required to operate the emission unit in compliance with subsections (f), (g) and (h) of this section. Such enforceable limitation on daily NOx emissions shall be issued in an order or modification to an existing permit; and

(B) If an emission unit subject to a limitation as provided in subparagraph (A) of this subdivision subsequently exceeds the applicable NOx emission threshold of subdivision (2) of this subsection, such an emission unit shall thereafter operate such an emission unit in compliance with RCSA section 22a-174-22e.

(2) On and after May 1, 2018, if an emission unit subject to this section that is not an emergency engine or an affected unit emits NOx at levels equal to or greater than the applicable level identified in subparagraph (A) or (B) of this subdivision on any day from May 1 to September 30, inclusive, the owner or operator shall thereafter operate the emission unit in compliance with section 22a-174-22e of the Regulations of Connecticut State Agencies:

(A) One hundred thirty-seven (137) pounds of NOx, if such emission unit is located in a severe nonattainment area for ozone; or

(B) Two hundred seventy-four (274) pounds of NOx, if such emission unit is located in a serious nonattainment area for ozone.

(3) The owner or operator of an emission unit that is not an emergency engine or an affected unit that exceeds a NOx emission threshold in subsection (e)(2) of this section shall submit the notification required by subsection (h) of this section within 60 days of the day on which the threshold is first exceeded and shall operate the emission unit in compliance with RCSA section 22a-174-22e no later than 270 days after the day on which the threshold is first exceeded.

(4) The owner or operator of an affected unit shall operate the unit in compliance with RCSA section 22a-174-22e. An affected unit that commences initial operation prior to the effective date of this section shall operate in compliance with RCSA section 22a-174-22e as of the effective date of this section. An affected unit that commences initial operation after the effective date of this section shall operate in compliance with RCSA section 22a-174-22e as of the date of initial operation.

(5) Notwithstanding the May 1, 2018 compliance date in subdivision (2) of this subsection, the owner or operator of a reclassified unit shall comply with subdivision (2) of this subsection on and after May 1, 2025. For the purposes of this section, "reclassified unit" means:

(A) An emission unit that becomes subject to this section on or after November 7, 2022 solely as a result of the amendment of the definition of "severe non-attainment area for ozone" in RCSA section 22a-174-1, effective on November 13, 2023; or

(B) An emission unit that is subject to subparagraph (A) of subdivision (2) of this subsection solely as a result of the amendment of the definition of "severe non-attainment area for ozone" in RCSA section 22a-174-1 effective on November 13, 2023.

(f) **Tune-up requirements.**

(1) Except as provided in subdivision (2) of this subsection, the owner or operator of an ICI boiler or a reciprocating engine subject to this section that is not an emergency engine shall conduct an inspection and tune-up of the emission unit a minimum of once per calendar year beginning with year 2018. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted under this section. The inspection and tune-up of the emission unit shall be conducted according to the manufacturer's recommended procedures, or, if the manufacturer's recommendations are not available, according to best available practices.

(2) The owner or operator of an emission unit that is subject to 40 CFR 60 or 40 CFR 63 and required to conduct a periodic tune-up by the applicable requirements of 40 CFR 60 or 40 CFR 63 may conduct tune-ups according to the schedule and procedures of the applicable requirements of 40 CFR 60 or 40 CFR 63. If the period between tune-ups in the applicable requirements of 40 CFR 60 or 40 CFR 63 is greater than 60 months, a tune-up shall be conducted at least once every 60 months.

(g) **Record keeping.**

(1) The owner or operator of an emission unit subject to this section shall retain all records and reports produced pursuant to this section for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut.

(2) The owner or operator of an emission unit that is not an emergency engine shall make and keep the following records on and after May 1, 2018:

(A) During the period from May 1 to September 30, inclusive, records sufficient to determine the NOx emissions (lbs) per day;

(B) A calculation of NOx emissions on each day of operation, performed no later than the last day of each month for every day of operation in the preceding month;

(C) The method used to calculate daily NOx emissions and the information used to determine the NOx emissions rate, chosen from the following options:

(i) If data are available from continuous emissions monitoring equipment installed, operated, and certified in accordance with a permit or order, or regulation issued or administered by the commissioner or the Administrator, or a commissioner approved voluntarily installed continuous emissions monitor, such data shall be used to determine the rate of emissions,

(ii) If the data in subparagraph (C)(i) of this subdivision are not available and stack testing data are available, such stack testing data shall be used to determine the rate of emissions, provided such testing was conducted in accordance with protocols approved in writing by the commissioner in advance of testing,

(iii) If the data in subparagraph (C)(i) or (C)(ii) of this subdivision are not available, the rate of emissions shall be calculated using data supplied by the manufacturer of the emission unit, which data were derived from EPA-approved emissions testing of such unit performed by or for the manufacturer,

(iv) If the data in subparagraph (C)(i), (C)(ii) or (C)(iii) of this subdivision are not available, the rate of emissions shall be calculated using the data or emissions estimation techniques that result in the highest rate of emissions from the following EPA publications:

1. Compilation of Air Pollutant Emission Factors (AP-42),
2. AIRS Facility Subsystem Emission Factors, or
3. The Emission Inventory Improvement Program (EIIP), or

(v) If the data in subparagraph (C)(i), (C)(ii), (C)(iii) or (C)(iv) of this subdivision are

not available, the emission rate shall be calculated using another source of emissions data that is approved by the commissioner;

(D) The date and work performed for repairs, replacement of parts and other maintenance;

(E) For each emission unit for each tune-up conducted pursuant to subsection (f) of this section, the date on which the emission unit is tuned-up; the name, title and affiliation of the person performing the tune-up, and a description of work performed, and

(F) Copies of all documents submitted to the commissioner pursuant to this section.

(3) The owner or operator of an emergency engine shall make and keep the following records:

(A) For an emergency engine not subject to 40 CFR 63 Subpart ZZZZ, daily records of the operating hours of such engine, identifying the operating hours of emergency and non-emergency use and the reason for each period of emergency or non-emergency operation. For an emergency engine subject to 40 CFR 63 Subpart ZZZZ, records required by 40 CFR 63.6655;

(B) The date and work performed for repairs, replacement of parts and other maintenance; and

(C) Copies of all documents submitted to the commissioner pursuant to this section.

(h) **Reporting.**

If an emission unit exceeds a daily NOx emissions threshold pursuant to subsection (e) of this section, the owner or operator shall submit a notification to the Compliance Analysis and Coordination Unit, Bureau of Air Management at the Department. Such a notification shall be submitted no later than 60 days after the date on which the daily NOx emissions thresholds were exceeded and shall include the following information:

(1) Legal name(s), address(es) and telephone number(s) of the emission unit owner and operator. If the owner or operator is a corporation or a limited partnership transacting business in Connecticut, provide the exact name as registered with the Secretary of the State;

(2) Location address of the premises where the emission unit is located;

(3) Make and model of the emission unit;

(4) Each fuel type combusted in the emission unit;

(5) NOx emissions data for the subject emission unit, including emission rates or emissions factors, if available, or the manufacturer's estimates of emissions;

(6) If the emission unit is operated pursuant to a new source review permit or a registration, the type of license and license number;

(7) The longitude and latitude of the emission unit, in decimal degrees format;

(8) The location address in Connecticut where records required to demonstrate compliance with this section are maintained;

(9) The date on which NOx emissions exceeded the threshold;

(10) A statement that the emission unit will be operated pursuant to the applicable requirements of section 22a-174-22e of the Regulations of Connecticut State Agencies; and

(11) A certification, as follows, signed by a person authorized by the owner or operator to execute and deliver such a submission on behalf of the owner or operator:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

(Effective December 22, 2016; Amended November 13, 2023)

Sec. 22a-174-23. Control of odors

(a) (1) No person shall cause or permit the emission of any substance or combination of substances which creates or contributes to an odor, in the ambient air, that constitutes a nuisance.

(2) An odor constitutes a nuisance if present with such intensity, characteristics, frequency and duration that:

(A) It is, or can reasonably be expected to be, injurious to public health or welfare, or

(B) It unreasonably interferes with the enjoyment of life or the use of property, considering the character and degree of injury to, or interference with, the health, general welfare, property, or use of property of the people affected, and the location of the pollution source and character of the area or neighborhood affected. Whether the source of the emissions was present in the location first shall not be a consideration.

(3) Except as provided in subsection (b) of this section, in determining whether an odor constitutes a nuisance the commissioner shall review information gathered from any source of information, including but not limited to citizen complaints and site inspections or surveys.

(b) Odor in the ambient air shall be deemed to constitute a nuisance if a representative of the commissioner or at least fifty percent of any group of representatives of the commissioner determines, based upon at least three samples or observations in a one hour period, that after a dilution of seven parts clean air to one part sampled air, the odor is equal to or greater than the odor detection threshold. Each of the three or more samples or observations shall be separated by at least fifteen minutes. The burden of rebutting the presumption of nuisance created by this subsection shall be on the owner or operator of the source.

(c) Odor in the ambient air shall be deemed to constitute a nuisance if any substance or combination of substances is present at a concentration in excess of any concentration stated in Table 23-1 of this section. The burden of rebutting the presumption of nuisance created by this subsection shall be on the owner or operator of the source.

(d) The commissioner may determine that an ambient odor which does not exceed the

limits set forth in subsections (b) or (c) of this section nevertheless constitutes a violation of subsection (a) of this section.

(e) If the commissioner finds that a violation of this section has occurred and reasonably suspects that a certain source has caused or contributed to such violation, the commissioner may issue an order requiring the owner and/or operator of such source to investigate whether it has caused or contributed to such violation. The commissioner may reasonably suspect that a source has caused or contributed to a violation based upon one (1) or more of the following: citizen complaints; comparisons of odors upwind and downwind of the source; material handling and storage practices; methods of operation; site inspections; surveys; information gathered from any other source; or actual or estimated stack emissions, fugitive emissions or ambient pollutant concentrations.

(f) The commissioner may use air quality modeling techniques to calculate ambient pollutant concentrations. The commissioner shall not use air quality modeling results as the sole basis for finding a violation of this section, unless the commissioner has received ten or more written complaints within ninety (90) consecutive days from separate households.

(g) Any person who is required to undertake an investigation or remediation pursuant to this section shall assure that all samples and measurements taken in any investigation and remediation are representative of the activity required to be sampled. In calculating ambient air quality impacts, such person shall use applicable air quality models, data bases or other techniques approved in writing by the commissioner for the subject source and any other source which is included in the analysis.

(h) Notwithstanding the provisions of section 22a-174-3a(c)(2) of the Regulations of Connecticut State Agencies, in acting on an application for a permit, the commissioner need not perform or review modeling to determine that a proposed source will operate in compliance with subsection (c) of this section.

(i) Nothing in this section shall permit emission of any pollutant in violation of any other section, and compliance with any other section shall not constitute compliance with this section.

(j) An argicultural or farming operation shall be exempt from the provisions of this section to the extent provided by Section 19a-341 of the General Statutes.

(k) The provisions of this section shall not apply to mobile sources or structures which are occupied solely as a dwelling and contain six or fewer dwelling units.

Table 23-1

Odor Limit Value in parts per million, fifteen-minute average	
Compound	*Concentration*
Chlorine	0.0240
Ethyl acrylate	0.00037
Ethyl mercaptan	0.00040
Formaldehyde	2.49

Hydrogen sulfide	0.0045
Methyl ethyl ketone	17.0
Methyl mercaptan	0.0010
Methyl methacrylate	0.34
Perchloroethylene	71.0
Phenol	0.12
Styrere	0.15
Toluene	11.0

(Effective October 1, 1990; Amended April 4, 2006)

Sec. 22a-174-24. Connecticut primary and secondary ambient air quality standards

(a) **Reserved.**

(b) The concentration of pollutants in the ambient air, as measured by a reference or equivalent method designated in 40 CFR 50 or 40 CFR 53, shall conform with levels specified in this section as the applicable air quality standards for these air pollutants throughout Connecticut. No person shall operate any stationary source, which has a significant impact on air quality as described in section 22a-174-3a(i)(1) of the Regulations of Connecticut State Agencies for the pollutants listed in Table 3a(i)-1 of section 22a-174-3a of the Regulations of Connecticut State Agencies, in such a manner as to cause or contribute to a violation of an ambient air quality standard.

(c) **Reserved.**

(d) **Connecticut primary and secondary ambient air quality standards for sulfur oxides (sulfur dioxide).**

(1) The level of the Connecticut primary 1-hour ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 75 parts per billion, as set out in 40 CFR 50.17.

(2) The level of the Connecticut secondary annual ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 10 parts per billion, as set out in 40 CFR 50.21.

(3) The level of the Connecticut primary 24-hour ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 0.14 parts per million, as set out in 40 CFR 50.4.

(4) The level of the Connecticut primary annual ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 0.030 parts per million, as set out in 40 CFR 50.4.

(5) The level of the Connecticut secondary 3-hour ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 0.5 parts per million, as set out in 40 CFR 50.5.

(e) **Connecticut primary and secondary ambient air quality standards for PM_{10}**

The level of the Connecticut primary and secondary 24-hour ambient air quality standards for particulate matter, measured as PM_{10}, is 150 micrograms per cubic meter, as set out in 40 CFR 50.6.

(f) **Connecticut primary and secondary ambient air quality standards for $PM_{2.5}$**

(fine particulate matter).

(1) The level of the Connecticut primary annual ambient air quality standard for fine particulate matter, measured as PM2.5, is 9.0 micrograms per cubic meter, as set out in 40 CFR 50.20.

(2) The level of the Connecticut primary annual ambient air quality standard for fine particulate matter, measured as $PM_{2.5}$, is 12.0 micrograms per cubic meter, as set out in 40 CFR 50.18.

(3) The level of the Connecticut secondary annual ambient air quality standard for fine particulate matter, measured as $PM_{2.5}$, is 15.0 micrograms per cubic meter, as set out in 40 CFR 50.13.

(4) The level of the Connecticut primary and secondary 24-hour ambient air quality standards for fine particulate matter, measured as $PM_{2.5}$, is 35 micrograms per cubic meter, as set out in 40 CFR 50.18 and 40 CFR 50.13, respectively.

(g) **Reserved.**

(h) **Connecticut primary ambient air quality standards for carbon monoxide.** The levels of the Connecticut primary ambient air quality standards for carbon monoxide, as set out in 40 CFR 50.8, are as follows:

(1) 9 parts per million for an 8-hour average concentration; and

(2) 35 parts per million for a 1-hour average concentration.

(i) **Connecticut primary and secondary ambient air quality standards for ozone.**

(1) The level of the Connecticut 8-hour primary and secondary ambient air quality standards for ozone, measured by a reference method based on Appendix D of CFR 50.10 and designated in accordance with 40 CFR 53, is 0.08 parts per million, as set out in 40 CFR 50.10.

(2) The level of the Connecticut 8-hour primary and secondary ambient air quality standards for ozone is 0.075 parts per million, daily maximum 8-hr average, as set out in 40 CFR 50.15.

(3) The level of the Connecticut 8-hour primary and secondary ambient air quality standards for ozone is 0.070 parts per million, daily maximum 8-hr average, as set out in 40 CFR 50.19.

(j) **Reserved.**

(k) **Connecticut primary and secondary ambient air quality standards for oxides of nitrogen (nitrogen dioxide).**

(1) The level of the Connecticut primary and secondary annual ambient air quality standard for oxides of nitrogen, measured as nitrogen dioxide, is 53 parts per billion, as set out in 40 CFR 50.11.

(2) The level of the Connecticut primary 1-hour ambient air quality standard for oxides of nitrogen, measured as nitrogen dioxide, is 100 parts per billion, as set out in 40 CFR 50.11.

(*l*) **Connecticut primary and secondary ambient air quality standards for lead.** The Connecticut primary and secondary ambient air quality standards for lead and its compounds

are 0.15 micrograms per cubic meter, as set out in 40 CFR 50.16.

(m) **Connecticut primary ambient air quality standard for dioxin.** The Connecticut primary ambient air quality standard for dioxin is 1.0 picograms per cubic meter annual average. For the purposes of determining compliance with this standard the commissioner may use a concentration of 7.0 picograms per cubic meter 8- hour average.

(Effective July 7, 1993; Amended April 4, 2006; Amended April 15, 2014; Amended April 2, 2025; Amended April 9, 2026)

Sec. 22a-174-25. Repealed

Repealed February 1, 2010.

Sec. 22a-174-26. Fees

(a) **Definitions.** For the purposes of this section:

(1) "Annual fee" means the fee required by section 22a-174a of the Connecticut General Statutes.

(2) "Applicant" means the person filing an application.

(3) "Application" means an application for a permit, or for renewal or modification thereof, under section 22a-174 of the Connecticut General Statutes.

(4) "Application fee" means the fee required by subsection (b) of this section.

(5) "Modification" means a modification as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(6) "Permit fee" means the fee required by subsection (c)(1) of this section.

(7) "PTE" means "potential to emit" as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(8) "Tentative determination" means a tentative determination issued by the commissioner under section 22a-6h of the Connecticut General Statutes.

(9) "TPY" means tons per year.

(10) The date of issuance of any notice or other document by the commissioner is the date of mailing or hand delivery, whichever is earlier.

(b) **Application fees.**

(1) Any person who is required to file an application under section 22a-174-3a or section 22a-174-19 of the Regulations of Connecticut State Agencies shall submit with such application an application fee of seven hundred and fifty dollars ($750.00).

(2) In addition to the application fee submitted under subdivision (1) of this subsection, each person for whom the commissioner reviews an application for a permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies, shall pay an additional application fee of one thousand five hundred dollars ($1,500.00) for:

(A) Each best available control technology (BACT) review required under section 22a-174-3a of the Regulations of Connecticut State Agencies for a stationary source or modification thereof, unless the stationary source or modification will have potential emissions of less than fifty (50) tons per year of each pollutant for which the permit is

required or the impact on ambient air quality of each of these pollutant emissions is not significant as listed in Table 3a(i)-1 set forth in section 22a-174-3a(i)(1) of the Regulations of Connecticut State Agencies; and

(B) Each lowest achievable emission rate (LAER) review required under section 22a-174-3a of the Regulations of Connecticut State Agencies.

(3) Notwithstanding subdivision (1) of this subsection, the fees for an application to change the fuel used to natural gas or liquefied propane gas, or to implement a process that will allow the use of A cleaner fuel shall be three hundred and seventy-five dollars ($375.00).

(4) There is no fee to correct a clerical error in a permit made by the commissioner.

(5) The commissioner shall apply the application fee under subdivision (1) or (3) of this subsection to any permit fee required by subsection (c) of this section.

(6) Notwithstanding the prior payment of an application fee, an applicant shall pay another application fee in accordance with subdivisions (1), (2) and (3) of this subsection under either of the following circumstances:

(A) After the commissioner has issued his tentative determination on the subject application but before he has taken final action thereon, the applicant revises the application so as to reflect an anticipated increase in emissions; or

(B) After the commissioner has issued his tentative determination on the subject application but before he has taken final action thereon, the applicant revises the application so as to reflect a change in process.

(c) **Permit fees.**

(1) Each person to whom the commissioner issues a permit, or a modification or renewal thereto, under section 22a-174-3a, section 22a-174-2a and section 22a-174-19 of the Regulations of Connecticut State Agencies shall pay a permit fee as prescribed in the fee schedule in subdivision (2) of this subsection.

(2) The fee schedule is set forth in Table 26-1.

TABLE 26-1 PERMIT FEE SCHEDULE

	REGULATION UNDER WHICH PERMIT IS ISSUED	MAJOR SOURCE (PTE)	LESS THAN MAJOR SOURCE (PTE)
New major stationary source	22a-174-3a(a)(1)(A)	$6,000	NA
Major modification	22a-174-3a(a)(1)(B)	$6,000	NA
New or reconstructed major source of hazardous air pollutants	22a-174-3a(a)(1)(C) and (m)	$6,000	NA
New emission unit with potential emis	22a-174-3a(a)(1)(D)	NA	$3,000

sions of fifteen (15) tons or more per year of any individual air pollutant			
Modification to an existing emission unit which increases potential emissions of any individual air pollutant from such unit by fifteen (15) tons or more per year	22a-174-3a(a)(1)(E)	NA	$3,000
Stationary source modification that becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable	22a-174-3a(a)(1)(F)	$6,000	NA
Limitation which was established after August 7, 1980 on the capacity of the source or modification otherwise to emit a pollutant			
New source review non-minor permit modification	22a-174-2a(d)	$3,000	$1,500
New source review minor permit modification	22a-174-2a(e)	$3,000	$1,500
Permit revision	22a-174-2a(f) (2)(B) to (G), inclusive	$1,500	$1,500
Permit renewal	22a-174-2a (i)	$3,000	$3,000
Permit for use of	22a-174-(19)(a)(2) (i)	$6,000	$3,000

solid fuel			
Permit for air pollution control energy trade	22a-174-(19)(a)(3)	$15,000	$7,500

(3) Reserved.

(4) Reserved.

(5) There is no fee, other than the fees under subsections (d) and (e) of this section, payable to the commissioner by the owner or operator of a Title V source to apply for, revise, modify or renew a Title V permit issued under section 22a-174-33 of the Regulations of Connecticut State Agencies.

(6) Each person who pays to the commissioner a license transfer fee pursuant to subsection (e) of this section shall not be subject to a permit revision fee pursuant to this subsection provided that the transfer of ownership and related administrative information are the only changes being proposed to the subject permit.

(d) **Emission fees.**

(1) For the purposes of this subsection, the following definitions shall apply: "Title V source" means:

(A) Any stationary source, or any group of stationary sources, where such source is located on one or more contiguous or adjacent properties, that is under common control of the same person, or persons under common control, and such source or sources have potential emissions, including fugitive emissions to the extent quantifiable, of, In the aggregate, ten (10) tons or more per year of any hazardous air pollutant which has been listed pursuant to section 112 (b) of the Clean Air Act, or twenty-five (25) tons or more per year of any combination of such hazardous air pollutants; or

(B) Any stationary source, or any group of stationary sources, where such source is located on one or more contiguous or adjacent properties, that is under common control of the same person, or persons under common control, and such source or sources belong to the same two digit Standard Industrial Classification code, as published by the United States Office of Management and Budget (OMB) in the Standard Industrial Classification Manual of 1987, and such source or sources have potential emissions, including fugitive emissions to the extent quantifiable, of:

(i) One hundred (100) tons or more per year of any air pollutant;

(ii) Fifty (50) tons or more per year of any volatile organic compounds or nitrogen oxides in a serious ozone nonattainment area; or

(iii) Twenty-five (25) tons or more per year of volatile organic compounds or nitrogen oxides in a severe ozone nonattainment area.

"1990 inventory" means the inventory submitted by the Department to the U.S. Environmental Protection Agency on January 13, 1994 which for stationary source is emissions of 133,665 tons per year for 1990.

(2) The owner or operator of a Title V source shall pay an emission fee each year to the

Department. The emission fee paid shall be the amount calculated under subdivision (4) of this subsection, unless the provisions of subdivision (6) of this subsection apply, in which case the emission fee paid shall be the amount specified in subdivision (6) of this subsection. Commencing July 1, 1995, payment to the Department shall be due by July 1 each year, based on the emissions during the previous calendar year.

(3) The emission fee shall be based on emissions of the following:

(A) Nitrogen oxides;

(B) Any volatile organic compound;

(C) Any pollutant for which an ambient air quality standard has been listed in subsections (d) to (*l*), inclusive, of section 22a-174-24 of the Regulations of Connecticut State Agencies;

(D) Any pollutant that is subject to any standard promulgated under section 111 of the Clean Air Act;

(E) Any Class I or II substance, listed in 42 U.S.C. 7671a, subject to a standard promulgated under or established by Title VI of the Clean Air Act; and

(F) Any hazardous air pollutant subject to a standard promulgated or other requirement established under section 112 of the Clean Air Act (42 U.S.C. 7412).

(4) Emission fee determination. The emission fee shall be based upon the actual emissions of all regulated air pollutants as identified in subdivision (3) of this subsection, from any emission units at the source according to the following equation:

emission fee = (A) x (B) x (C)

Where:

(A) Is the Total Actual Premise Emissions, which is the premise's actual emissions of the pollutants specified in subdivision (3) of this subsection from all emitting units located at the premise as reported in the emissions inventory for the previous calendar year which is on file with the Department. The sum of the Total Actual Premise Emissions shall be raised to the next whole ton;

(B) Is the per ton fee, which is equal to twenty-five dollars ($25.00) per ton in 1989 dollars multiplied by the ratio of the Consumer Price Index for all-urban consumers published by the United States Department of Labor, as of August 31 of the previous calendar year, to the Consumer Price Index for August 1989; and

(C) Is the Inventory Stabilization Factor, which is a value equal to the total actual emissions of 133,665 tons per year from stationary sources in the 1990 Inventory divided by the total statewide stationary source actual emissions from the previous calendar year. The quotient shall be rounded to the second decimal place. If the Inventory Stabilization Factor is less than one (1.00), one (1.00) shall be used as the Inventory Stabilization Factor. The commissioner shall, thirty days prior to application of the Inventory Stabilization Factor, file with the Secretary of the Office of Policy and Management a report describing the calculation of the Inventory Stabilization Factor with relevant supporting documentation. Such report shall also describe expenditures of the previous year's emission based fees collected pursuant to this subsection.

(5) The commissioner may reduce the Inventory Stabilization Factor set forth in

subdivision (4)(C) of this subsection applicable to the prior calendar year emissions, if the commissioner finds that the Air Emissions Permit Operating Fee account balance, by itself, will be sufficient on or about July 1st to cover two years of Title V program expenses. The Inventory Stabilization Factor shall not be reduced to less than one (1.00). The commissioner shall not adjust the Inventory Stabilization Factor in such a manner as to collect fees that will result in the balance in the Air Emissions Permit Operating Fee account being insufficient to cover two years of Title V program expenses. The determination of what constitutes a Title V program expense under this subdivision shall be in the sole discretion of the commissioner and in accordance with section 502(b)(3) of the Clean Air Act.

(6) Notwithstanding subdivision (4) of this subsection, the emission fee shall be:

(A) Effective July 1, 2004, one thousand dollars ($1,000.00) for each Title V source for which the emission fee calculated under subdivision (4) of this subsection was less than one thousand dollars ($1,000.00). Effective July 1, 2005, two thousand five hundred dollars ($2,500.00) for each Title V source for which the emission fee calculated under subdivision (4) of this subsection was less than two thousand five hundred dollars ($2,500.00). Effective July 1, 2006, five thousand dollars ($5,000.00) for each Title V source for which the emission fee calculated under subdivision (4) of this subsection was less than five thousand dollars ($5,000.00); and

(B) Five hundred thousand dollars ($500,000.00), adjusted for inflation from August 31, 1989, for each Title V source for which the emission fee calculated under subdivision (4) of this subsection was more than five hundred thousand dollars ($500,000.00), adjusted for inflation from August 31, 1989. "Adjusted for inflation" for the purposes of this subparagraph means, an increase to the emission fee by multiplying such fee by the ratio of the Consumer Price Index for all urban consumers published by the United States Department of Labor as of August 31 of the previous calendar year, to the Consumer Price Index for August 1989.

(7) Late fee. A late fee of ten percent (10%) of the emission fee or fifty dollars ($50), whichever is greater, shall be charged, in addition to any other fee required by this subsection, if an owner or operator of a Title V source fails to submit the required emission fee when due. The owner or operator of such Title V source shall pay an additional one and one quarter percent (1.25%) per month of the amount of all emission fees required by this subsection which remain unpaid after the first day of each month. This subdivision shall not prevent the commissioner from pursuing other remedies available by statute or regulation.

(8) Municipal emission fees. Any emission fee charged to a municipality pursuant to this subsection shall be fifty percent (50%) of the emission fee owed pursuant to subdivisions (4) or (6) of this subsection, whichever subdivision is applicable.

(9) An emission fee required under this subsection shall be paid in an amount rounded to the nearet whole dollar.

(e) **Transfer fee.** Each person registering a proposed transfer of a license with the commissioner under section 22a-6o of the Connecticut General Statutes shall submit with

such registration a transfer fee of seven hundred and fifty dollars ($750.00).

(f) **General permit fee.** Each person filing a registration for approval to operate under a general permit issued under subsection (l) of section 22a-174 of the Connecticut General Statutes shall submit with such registration the fee required by section 22a-6f(b) of the Connecticut General Statutes.

(g) **Annual inspection fees.**

There is no fee for any annual inspection conducted under section 22a-174a of the Connecticut General Statutes.

(h) **Emission test fees.** In addition to any other fee required by this section, the owner or operator of a stationary source who is required by any statute, regulation, permit or order administered or issued by the commissioner to conduct an emission test or to install or operate a continuous emission monitor shall pay three-hundred and seventy-five dollars ($375.00) to the commissioner per day or part thereof for each Department employee who conducts or observes such test or the installation of such continuous emission monitor; provided that if such owner or operator is subject to section 22a-232 of the Connecticut General Statutes, he shall not be required to pay the fee established by this subsection.

(i) **Payment of fees.**

(1) Any fee required under this section shall be paid by check or money order payable to the Department of Environmental Protection, which shall state on its face, for an application fee, "Air Management Application Fee", for an emission fee, "Air Management Emission Fee", and for any other fee, "Air Management Fee."

(2) Except as otherwise provided by this section, any fee required by this section shall be submitted within the time specified by the commissioner. If neither this section nor the commissioner specifies a time for submitting payment, payment shall be due within 30 days of written notice by the commissioner that such fee is required.

(j) **Failure to pay fee.** The commissioner shall not process an application for a permit or other authorization under section 22a-174 of the Connecticut General Statutes unless all fees required by this section have been paid in full.

(k) **Late fee.** Except as otherwise provided in this section, an applicant or permittee who fails to pay when due any fee required by this section shall pay an additional five percent (5%) of the amount of such fee for each month or part thereof that such fee is overdue.

(*l*) **Municipal fees.** In accordance with subsection (i) of section 22a-174 of the Connecticut General Statutes, any fee under this section due from a municipality shall be reduced by fifty percent (50%).

(m) **Refunds.**

(1) If (A) the commissioner determines that the permit or other authorization or approval sought by an application is not required by law, or an applicant revises a pending application so as to decrease the permit fee that would otherwise be required by this section if the permit sought by such applicant were granted, and (B) the commissioner has not yet published his tentative determination on such application, the commissioner shall retain one half of the application fee or general permit fee paid and shall refund to the applicant the balance

thereof.

(2) If an application fee is submitted with an application for an individual permit under section 22a-174 of the Connecticut General Statutes, and the commissioner determines (A) that a general permit has been issued under subsection (l) of such section with respect to the activity for which such application seeks a permit, and (B) that the general permit fee for authorization under such general permit is less than the application fee paid with the individual permit application, the commissioner shall deduct the general permit fee from the application fee paid, retain such deducted amount, and refund the remainder to the applicant.

(3) If, immediately prior to permit issuance, all fees paid by an applicant exceed the sum of all fees required under this section, the commissioner shall refund the excess payment to the applicant.

(4) If the owner or operator of a Title V source pays an emission fee under subsection (d) of this section in excess of the fee actually due, the commissioner shall refund to such owner or operator the portion of the fee paid which is excessive.

(5) The owner or operator of a source subject to the emission fee in subsection (d) of this section may dispute the amount of such fee only by submitting, in writing, to the commissioner an explanation of the reason for the dispute. If the commissioner determines that he erroneously calculated emissions from the subject source, he shall refund to such owner or operator the excess amount, provided such owner or operator timely paid the entire fee assessed under subsection (d) of this section and submitted such written explanation prior to or simultaneously with such payment.

(6) There shall be no refunds other than as specified in this subsection.

(Effective January 23, 1997; Amended September 30, 2002; Amended May 26, 2004; Amended September 10, 2012; Amended November 18, 2020)

Sec. 22a-174-27. Emission standards and on-board diagnostic II test requirements for periodic motor vehicle inspection and maintenance

(a) **Applicability.**

This section shall apply to any owner or operator of a 1979 and later model year motor vehicle that is not an antique, rare or special interest motor vehicle as defined in section 14-1 of the Connecticut general statutes. This section shall not apply to motor vehicles that are exempt from the periodic air pollution control system inspection and maintenance requirements pursuant to subsection (c) of section l4-l64c of the Connecticut general statutes.

(b) **Definitions.** As used in this section:

(1) "ASM 2525" or "Acceleration Simulation Mode Test" means an emissions test to analyze exhaust emissions of CO, NO, and HC performed at a steady state of twenty-five (25) miles per hour (mph) and utilizing a dynamometer load set to simulate twenty-five (25%) of the power required to accelerate the particular vehicle being tested at 3.3 mph per second until a speed of twenty-five (25) mph is attained;

(2) "CO" means carbon monoxide;

(3) "Gross Vehicle Weight Rating" or "GVWR" means the value specified by the manufacturer as the maximum loaded weight of a single or a combination (articulated) vehicle, or its registered gross weight, whichever is greater. The GVWR of a combination (articulated) vehicle commonly referred to as the "Gross Combination Weight Rating" or GCWR is the GVWR of the power unit plus the GVWR of the towed unit or units;

(4) "HC" means hydrocarbon;

(5) "Heavy-duty gasoline powered vehicle" means any motor vehicle fueled by gasoline that is rated at greater than eight thousand five hundred (8500) pounds GVWR and less than or equal to ten thousand (10,000) pounds GVWR;

(6) "Light-duty truck" or "LDT" means a motor vehicle rated at eight thousand five hundred (8500) pounds GVWR or less and is designed:

(A) To transport property or ten (l0) or more persons, not including the operator; or

(B) With features enabling off-street or off-highway operation and use;

(7) "Light-duty vehicle" or "LDV" means a motor vehicle that is designed:

(A) To carry not more than ten (l0) persons, including the operator; and

(B) To transport persons and their property with at least fifty percent (50%) of the total area enclosed by the outermost body contour lines, excluding the area enclosing the engine;

(8) "Loaded opacity test procedure" means an analysis of exhaust opacity measured by an opacity meter and utilizing a dynamometer load;

(9) "Loaded vehicle weight" or "LVW" means vehicle curb weight plus three hundred (300) pounds;

(10) "Model year" means a motor vehicle manufacturer's annual production period that includes January 1 of such calendar year or, if the manufacturer has no annual production period, the production period that includes January 1 of such year;

(11) "Modified snap-acceleration smoke opacity test procedure" means an analysis of exhaust opacity in accordance with a variant of the "snap-acceleration smoke opacity test" defined in section 14-164i-1 of the Regulations of Connecticut State Agencies;

(12) "NO" means nitric oxide;

(13) "On-board diagnostic II system" or "OBD II system" means a computerized self diagnostic system in a LDV or LDT that registers faults indicating malfunctions and deteriorations of the LDV's OR LDT's exhaust and evaporative emission control components;

(14) "Pre-conditioned two speed idle test procedure" means an analysis of exhaust emissions concentrations of CO, in percent by volume (VOL. %), and HC, in parts per million (ppm); and

(15) "Vehicle curb weight" is defined as in 40 CFR 86.082-2.

(c) **Emission standards.**

(1) Pre-conditioned two speed idle test standards shall be as follows:

(A) maximum allowable emissions for any light-duty truck or light-duty vehicle subject to a pre-conditioned two speed idle test procedure administered by the Commissioner of

Motor Vehicles or his designee shall be as identified per vehicle model year in table 27-1; and

Table 27-1. Pre-conditioned Two Speed Idle Test Standards for Light-duty Trucks and Light-duty Vehicles

Vehicle Model Year	CO (Vol. %)	HC (ppm)
1979	3.00	600
1980	3.00	600
1981 and later	1.20	220

(B) Maximum allowable emissions for any heavy-duty gasoline powered vehicle subject to a pre-conditioned two speed idle test procedure administered by the Commissioner of Motor Vehicles or his designee shall be as identified per vehicle model year in table 27-2.

Table 27-2. Pre-conditioned Two Speed Idle Test Standards for Heavy-duty Gasoline Powered Vehicles

Vehicle Model Year	CO (vol. %)	HC (ppm)
1980 and earlier	3.0	600
1981 through 1987	1.6	450
1988 and later	1.6	300

(2) ASM 2525 exhaust emission standards. Maximum allowable emissions for any vehicle subject to an ASM 2525 exhaust emission test administered by the Commissioner of Motor Vehicles or a designee of the Commissioner of Motor Vehicles shall be as published by the United States Environmental Protection Agency in subdivisions (a)(2) and (a)(3) of section 85.1 of the "Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications," Final Technical Guidance, EPA420-B-03-008 (October 2003).

(3) Loaded opacity test standards. Maximum allowable visible emissions for diesel powered LDVs and LDTs of model years 1979 and later subject to a loaded opacity test procedure administered by the Commissioner of Motor Vehicles or his designee, shall be twenty percent (20%) particulate opacity.

(4) Modified snap-acceleration smoke opacity test standards. Maximum allowable visible emissions for any diesel powered vehicle subject to a modified snap-acceleration smoke opacity test procedure administered by the Commissioner of Motor Vehicles or his designee shall be as specified in section 14-164i-2 of the Regulations of Connecticut State Agencies.

(d) **Undetermined GVWR.** Where the gross vehicle weight rating cannot be determined, the emission standard for LDVs shall apply.

(e) **Reserved.**

(f) **Alteration or replacement of vehicle engine.**

(1) Any vehicle with an engine other than the one originally installed by the manufacturer

or an identical replacement of such engine shall be subject to the test procedures and standards for the chassis type and model year of the vehicle.

(2) Any vehicle that is re-engineered from an internal combustion gasoline engine to another combustion or fuel type, shall be subject to the test procedures and standards for a gasoline powered vehicle.

(g) **On-board diagnostic II system test procedures.**

The test sequence for any inspection of OBD II systems on model year 1996 and newer LDV's and LDT's administered by the Commissioner of Motor Vehicles or his designee shall meet the requirements of 40 CFR 51 and 40 CFR 85 and shall include all procedures set forth in 40 CFR 85.2222.

(Effective July 26, 1995; Amended March 26, 1998; Amended August 21, 2000; Amended August 25, 2004; Amended August 10, 2009)

Sec. 22a-174-28. Oxygenated gasoline

(a) **Definitions**.

(1) "ASTM" means the American Society for Testing and Materials.

(2) "Carrier" means any person who transports, stores or causes the transportation or storage of gasoline at any point in the gasoline distribution network, without taking title to or otherwise having ownership of the gasoline and without altering the quality or quantity of the gasoline.

(3) "Central Control Area" means the cities and towns within the Hartford Consolidated Metropolitan Statistical Area. These towns are: Andover, Avon, Bark-hamsted, Berlin, Bloomfield, Bolton, Bristol, Burlington, Canton, Colchester, Columbia, Coventry, Cromwell, Durham, East Granby, East Haddam, East Hampton, East Hartford, East Windsor, Ellington, Enfield, Farmington, Glastonbury, Granby, Haddam, Hartford, Hebron, Manchester, Marlborough, Middlefield, Middletown, New Britain, New Hartford, Newington, Plainville, Plymouth, Portland, Rocky Hill, Simsbury, Somers, South Windsor, Southington, Stafford, Suffield, Tolland, Vernon, West Hartford, Wethersfield, Willington, Windsor and Windsor Locks.

(4) "Control Area" means either the Central Control Area or the Southwestern Control Area.

(5) "Control period" means the period from November 1 to the last day of February for the Central Control Area and the Southwestern Control Area if a violation of the ambient air quality standard for carbon monoxide, as determined in accordance with the procedures specified in 40 CFR 50, occurs within such Control Area after November 1, 1998. If such violation occurs between December 1 and September 1, the Control Period for the Control Area in which such violation occurred begins the following November. If such violation occurs between September 1 and December 1, the Control Period for the Control Area in which such violation occurred begins sixty (60) days after such violation for the initial Control Period and begins November 1 for each succeeding year.

(6) "Distributor" means any person who transports or stores or causes the transportation

or storage of gasoline at any point between any gasoline refinery or importer's facility and any retail outlet or wholesale purchaser-consumer's facility.

(7) "Gasoline" means any fuel sold for use in motor vehicles and motor vehicle engines, and commonly or commercially known or sold as gasoline.

(8) "Importer" means a person who imports gasoline or gasoline blending stocks from a foreign country into the United States.

(9) "Oxygenate" means any substance which, when added to gasoline, increases the amount of oxygen in that gasoline blend. Lawful use of any combinations of these substances requires that they be "Substantially Similar" under section 211(f)(1) of the Clean Air Act, or be permitted under a waiver granted by the Administrator under the authority of section 211(f)(4) of the Clean Air Act.

(10) "Oxygenated gasoline" means a gasoline with an oxygen content of at least two and seven tenths percent (2.7%) but no more than three and five tenths percent (3.5%) of oxygen by weight.

(11) "Oxygen content" means the percentage of oxygen by weight contained in gasoline, based upon its percentage oxygenate by volume, excluding denaturants and other non-oxygen containing components.

(12) "Refinery" means a plant at which gasoline is produced.

(13) "Retail outlet" means any establishment at which gasoline is sold, offered for sale or dispensed to the ultimate consumer for use in motor vehicles.

(14) "Retailer" means any person who owns, leases, operates, controls or supervises a retail outlet.

(15) "Southwestern Control Area" means the cities and towns within the Connecticut portion of the New Jersey - New York - Connecticut Consolidated Metropolitan Statistical Area. These towns are: Ansonia; Beacon Falls; Bethel; Bridgeport; Bridgewater; Brookfield; Danbury; Darien; Derby; Easton; Fairfield; Greenwich; Milford; Monroe; New Canaan; New Fairfield; New Milford; Newtown; Norwalk; Oxford; Redding; Ridgefield; Seymour; Shelton; Sherman; Stamford; Stratford; Trumbull; Weston; Westport; and Wilton.

(16) "Terminal" means a facility at which gasoline is sold or dispensed into trucks for transportation to a retailer or wholesale purchaser-consumer.

(17) "Wholesale purchaser-consumer" means any person who:

(A) is an ultimate consumer of gasoline;

(B) purchased or obtains such gasoline from a distributor or carrier; and

(C) receives such gasoline into a storage tank with a capacity of 550 gallons or more which is substantially under the control of such person.

(b) **Oxygen content standards.**

(1) No distributor or carrier shall provide, deliver, offer for sale, sell, or exchange in trade to any retailer or wholesale purchaser-consumer for use in a Control Area any gasoline which is not oxygenated gasoline during the Control Period for such Control Area except where an emergency exemption has been issued by the Commissioner pursuant to subsection (g) of this section.

(2) No retailer or wholesale purchaser-consumer located in a Control Area shall accept delivery, store, offer for sale or exchange in trade any gasoline which is not oxygenated gasoline during the Control Period for such Control Area.

(c) **Procedures for sampling, testing, and calculating oxygen content.**

(1) Any person who determines the oxygen content by weight of gasoline shall use the values listed in Table 28-1 of this subsection and the procedures listed in subdivisions (c)(2) through (c)(4) of this subsection. All volume measures shall be adjusted to sixty (60) degrees Fahrenheit.

(2) Any person who determines the oxygen content by weight of gasoline shall obtain a representative sample in accordance with EPA's sampling procedures as detailed in Title 40 Code of Federal Regulations Part 80, Appendix D.

(3) Any person who determines the oxygen content by weight of gasoline shall determine the mass concentration of each oxygenate in the sample by one of the following test methods:

(A) ASTM Method 4815-89 (ASTM standard test method for determination of C_1TO C_4alcohols and MTBE in gasoline by gas chromatography); or

(B) Appendix C to EPA's Supplemental Notice of Proposed Guidelines for Oxygenated Gasoline Credit Programs under Section 211(m) of the Clean Air Act as amended, printed in the February 5, 1992 Federal Register (57 FR 4444); and

(4) Any person who determines the oxygen content by weight of gasoline shall calculate the oxygen content by weight by using the oxygen content conversion procedures from EPA's Supplemental Notice of Proposed Guidelines for Oxygenated Gasoline Credit Programs under Section 211(m) of the Clean Air Act as amended, printed in the February 5, 1992 Federal Register (57 FR 4425).

TABLE 28-1

Oxygenate	Percent (%)Weight of Oxygen	SpecificGravity
methyl alcohol	0.4993	0.7963
ethyl alcohol	0.3473	0.7939
normal propylalcohol	0.2662	0.8080
isopropylalcohol	0.2662	0.7899
normal butylalcohol	0.2158	0.8137
isobutylalcohol	0.2158	0.8058
secondary butylalcohol	0.2158	0.8114
tertiary butylalcohol	0.2158	0.7922
methyl tertiarybutyl ether (MTBE)	0.1815	0.7460
tertiary amylmethyl ether (TAME)	0.1566	0.7752
ethyl tertiarybutyl ether (ETBE)	0.1566	0.7452
di-isopropylether (DIPE)	0.1556	0.7300

(d) **Record keeping.**

(1) Any person who owns, leases, operates or controls a gasoline terminal shall maintain records at such terminal containing the following information regarding oxygenated gasoline:

(A) the owner(s) of the gasoline;

(B) volume of each delivery going into or out of the terminal;

(C) type and percentage by volume of oxygenate in the gasoline being delivered if available

(D) oxygen content by weight of each delivery received at the terminal;

(E) the date of such sale or transfer; and

(F) results of tests for oxygenate, including the test method and sampling procedure and the name of the person or company who performed such tests.

(2) All retailers and wholesale purchasers-consumers located in a Control Area shall maintain copies of transfer documents specified in subsection (e) below for each delivery of gasoline during the Control Period for such Control Area.

(3) All distributors who deliver oxygenated gasoline to any retailer or wholesale purchasers-consumers located in a Control Area shall maintain copies of transfer documents specified in subsection (e) below for each delivery of gasoline during the Control Period for such Control Area.

(4) All records and documentation shall be maintained at the terminal for not less than two (2) years, and shall be made available for review upon request of the Department.

(e) **Transfer documents**.

At the time of delivery each distributor or carrier shall provide a transfer document to any retailer or wholesale purchaser-consumer located in a Control Area accepting such delivery during the Control Period for such Control Area. The transfer document may consist of an invoice, bill of lading, shipping paper or other documentation signed by such distributor or carrier. The transfer document shall contain:

(1) the date of delivery;

(2) the name and address of the distributor or carrier;

(3) the volume of oxygenated gasoline being delivered;

(4) a statement that the product is oxygenated gasoline; and

(5) the type of oxygenate used.

(f) **Dispenser Labeling**.

Each retailer or wholesale purchaser-consumer in a Control Area shall label each gasoline dispenser during the Control Period for such Control Area. The label shall meet the requirements of Section 211 of the Clean Air Act.

(g) **Emergency shortage exemption.**

(1) Any person who has insufficient supply of oxygenated gasoline may apply in writing to the Commissioner for an emergency exemption.

(2) The Commissioner may approve an application for an emergency exemption in extreme and unusual circumstances, such as a natural disaster or Act of God, which are outside the control of the applicant such that the applicant has insufficient supply of

oxygenated gasoline and which could not have been avoided by the exercise of prudence, diligence and due care, if the applicant demonstrates to the Commissioner's satisfaction that:

(A) the emergency exemption is in the public interest;

(B) the applicant has exercised prudent planning and was not able to avoid the insufficient supply of oxygenated gasoline and has taken all reasonable steps to minimize the extent of the insufficient supply of oxygenated gasoline;

(C) the applicant shows how the requirements for oxygenated gasoline will be expeditiously achieved; and

(D) the applicant provides an offsetting air quality benefit equal to the detriment associated with the non-conforming gasoline, where practicable.

(3) The Commissioner may, in accordance with the provisions of sections 22a-3a-2, 22a-3a-5, and 22a-3a-6 of the Regulations of Connecticut State Agencies, hold a hearing on any request for an emergency exemption.

(4) No person who applies for an emergency exemption shall provide, offer for sale, sell, or exchange in trade any gasoline, other than oxygenated gasoline during the Control Period for such Control Area, without the written approval of the Commissioner.

(5) An emergency exemption issued by the Commissioner shall not exceed thirty (30) days.

(6) Any person to whom the Commissioner has issued an emergency exemption shall:

(A) only provide, offer for sale, sell, or exchange in trade gasoline with oxygen content of at least two percent (2.0%) by weight to a Control Area during the Control Period for such Control Area.

(B) maintain records required by subdivision (d)(1) above documenting the quantity of gasoline transferred each day and;

(C) within thirty (30) days of the end of the emergency exemption, submit a report to the Commissioner in writing which summarizes the information contained in such records for the gasoline transferred into a Control Area.

(h) **Delegation**.

(1) The Commissioner may, in accordance with the provisions of section 22a-2a of the General Statutes, delegate the authority to inspect any retailer or wholesale purchaser-consumer covered by the provisions of this regulation to the Department of Consumer Protection, to any municipality, or to any employee of either the Department of Consumer Protection or such municipality. Such delegations shall not include the authority to otherwise enforce any provision of this section.

(2) The Commissioner of the Department of Consumer Protection or the chief executive officer of a municipality may apply to the Commissioner for delegation to the Department of Consumer Protection or municipality of all or part of the authority to inspect any retailer or wholesale purchaser-consumer covered by the provisions of the regulation. In making a decision on such application, the Commissioner shall consider:

(A) the knowledge and training of the applicant;

(B) the jurisdictional authority of the applicant;
(C) the financial and administrative capacity of the applicant;
(D) the level of experience and training of the employee of the applicant;
(E) the nature of the duties to be delegated; and
(F) the facilities which will be subject to this regulation.

(3) The Commissioner shall notify the applicant in writing of the decision on the application. If such application is approved, the Commissioner shall prepare a memorandum of understanding which defines the scope of the delegation. The Commissioner and the applicant shall both sign the memorandum of understanding. The memorandum of understanding shall include an effective date and an expiration date, provided that the initial memorandum of understanding shall be valid for a period of up to three (3) years.

(4) Prior to the expiration of the memorandum of understanding, the Commissioner shall review the performance of duties required by the memorandum of understanding, including record keeping, reporting, inspections, and enforcement activities. If the Commissioner is satisfied with such performance, the Commissioner may renew the memorandum of understanding for up to five (5) years.

(5) The Department of Consumer Protection or a municipality may allow employees to perform delegated duties, provided that the Department of Consumer Protection or municipality is ultimately responsible for such activities. Any person who will perform delegated duties shall complete technical training in methods of inspection and reporting.

(6) Any person who performs delegated duties shall abide by the standards and requirements for state employees contained in Chapter 10 of the General Statutes, as amended.

(7) Within fifteen (15) days of the detection of a violation of any standard, criteria or other requirement at a retailer or wholesale purchaser-consumer which the Department of Consumer Protection or a municipality has been delegated the authority to inspect, the Department of Consumer Protection or municipality shall submit a written report concerning such violation to the Commissioner. In the event that further investigation or action by the Department of Consumer Protection or municipality is required, the Commissioner shall notify the Department of Consumer Protection or the municipality of such investigation or action.

(8) Beginning January 1, 1993, the Department of Consumer Protection or a municipality which has been delegated authority to inspect facilities under this section shall submit an annual written report to the Commissioner each January 1 which summarizes the activities, including the number of inspections, conducted under such authority during the previous twelve (12) months.

(9) The Commissioner shall maintain a record of the cost to the Department of administering the delegation program under this section. The Commissioner shall assess the benefits, including any cost reductions, and liabilities to the Department of the delegation program, including the costs specified above, the number of inspections conducted, and the overall effectiveness of delegation in reducing air pollution in the state.

(10) The Commissioner may revoke all or part of a delegation of authority upon written notice to the Commissioner of the Department of Consumer Protection or the chief executive officer of the municipality. Such revocation shall be effective upon receipt of such notice.

(11) The Commissioner of the Department of Consumer Protection or the chief executive officer of the municipality may terminate all or part of the delegated responsibilities upon thirty (30) days written notice to the Commissioner.

(i) **Federal program waiver.**

The Commissioner may waive the provisions of this section if the Administrator waives the requirements of this program pursuant to a finding under Section 211(m)(3)(c) of the Clean Air Act as amended.

(Effective July 26, 1995; Amended September 29, 1999; Amended April 15, 2014)

Sec. 22a-174-29. Hazardous air pollutants

(a) "Hazard Limiting Values" and "Ambient Air Quality Standards"

(1) "Hazard Limiting Values" (HLV)'s for "Hazardous Air Pollutants" for 8-hour and 30-minute averaging times are listed in Tables 29-1, 29-2, and 29-3. "Ambient Air Quality Standards" (AAQS) are listed in section 22a-174-24.

(2) For a "hazardous air pollutant" or other "air pollutant" for which either a "HLV" or an "AAQS" has not yet been established by the "Commissioner," the "Commissioner" may request the Commissioner of Health Services to propose changes to Tables 29-1, 29-2 or 29-3 or to section 22a-174-24, to provide supporting documentation for his selection, and to submit it for review by the "Hazardous Air Pollutant Advisory Panel" within ninety (90) days of receipt of the request of the "Commissioner."

(3) The "Commissioner" shall request the "Panel" to review the proposal and supporting documentation and to make a recommendation to the "Commissioner" to approve, modify or decline to accept the proposal within ninety (90) days of receipt. Within sixty (60) days of receipt of the recommendation of the "Panel," the "Commissioner" shall announce a hearing for a new "HLV" to be included in Tables 29-1, 29-2, or 29-3 or "AAQS" for section 22a-174-24.

(4) For the purposes of this section, "hazardous air pollutant" means a substance listed in Table 29-1, Table 29-2 or Table 29-3 of this section.

(b) **Maximum Allowable Stack Concentrations.**

(1) On or after October 1, 1986, no person shall cause or permit the emission of any hazardous air pollutant listed in Table 29-1 from any stationary source at a concentration at the discharge point in excess of the maximum allowable stack concentration, unless the stationary source is operating in accordance with the terms of an order or permit of the commissioner specifically allowing the continued operation of the stationary source in violation of this subdivision while coming into compliance or the source is in compliance with the provisions of subsection (d)(3) of this section.

(2) No person, who is required to maintain compliance with a permit under section 22a-174-3a of the Regulations of Connecticut State Agencies shall cause or permit the emission

of any hazardous air pollutant listed in Table 29-1, 29-2 or 29-3 of this section from any stationary source or modification at a concentration at the discharge point in excess of the maximum allowable stack concentration unless such source is in compliance with the provisions of subsection (d)(3) of this section. The owner or operator of a stationary source who was issued a permit under former section 22a-174-3 of the Regulations of Connecticut State Agencies prior to July 1, 1986 shall be required to comply with Tables 29-2 and 29-3 of this section upon modification of such permit.

(3) If the owner or operator of a stationary source that emits or may emit a hazardous air pollutant is in compliance with the MASC at the discharge point of that source, but the commissioner determines, through ambient monitoring, that the HLV is exceeded, then the commissioner may require that the concentration of the hazardous air pollutant at the discharge point be further reduced.

(4) The owner or operator of any stationary source or modification not subject to the provisions of subdivision (2) or subdivision (6) of this subsection that emits or may emit a hazardous air pollutant shall comply with the requirements of subdivision (2) of this subsection if the commissioner determines, through ambient monitoring, that the HLV is exceeded as a result of the emissions from that stationary source.

(5) For the purposes of subdivisions (3) and (4) of this subsection, any person who performs ambient air monitoring shall use methods and procedures approved by the commissioner.

(6) The owner or operator of any incinerator shall not cause or permit the emission of any hazardous air pollutant listed in Table 29-1, 29-2 or 29-3 of this section from such incinerator at a concentration at the discharge point in excess of the maximum allowable stack concentration.

(c) Determination of "Maximum Allowable Stack Concentrations"

(1) The "maximum allowable stack concentration" of a "hazardous air pollutant" (in micrograms per cubic meter or parts per million) at the "discharge point" of a "stationary source" shall be determined as follows:

(A) If the "discharge point" is twenty (20) meters or less measured vertically from the ground elevation at the "discharge point," the "MASC" shall be:

$$\frac{0.885HLV(X+1.08V_0^{0.64})1.56}{V_0} \qquad [1]$$

Where "HLV" is the applicable "hazard limiting value" (in either micrograms per cubic meter or parts per million for 8-hour and 30-minute averaging times), "V_0" is the average actual flow rate (in actual cubic meters per second) from the "discharge point," and "X" is ten (10) meters, or the distance from the "discharge point" to the closest property line, whichever is greater.

(B) If the "discharge point" is more than twenty (20) meters measured vertically from the ground elevation at the "discharge point," the "maximum allowable stack concentration"

("MASC") shall be:

$$\frac{0.885HLV(X_{\max}+1.08V_0^{0.64})^{1.56}\exp[10.33(H-20)^2(X_{\max}+1.08V_0^{0.64})^{-1.56}]}{V_0} \quad [2]$$

Where "HLV" is the applicable "hazard limiting value" (in micrograms per cubic meter or parts per million) for 8-hour and 30-minute averaging times, "V_0" is the average actual flow rate (in actual cubic meters per second) from the "discharge point," "H" is the height (in meters) of the "discharge point," measured vertically from the ground elevation at the "discharge point" and "Xmax" is the greater of the following distances:

(i) ten (10) meters

(ii) the closest distance, in meters, from the "discharge point" to the property line, or

(iii) the distance, in meters, determined by:

$$4.47(H-20)^{1.28} \quad [3]$$

Where "H" is the height (in meters) of the "discharge point" measured vertically from the ground elevation at the discharge point.

(2) For the purposes of this subsection, in determining the distance from the "discharge point" to the property line the "Commissioner" may allow consideration for any "watercourse" adjacent to the property in question. The "Commissioner" may allow the use of the opposite shore in determining the closest distance to the property line.

(d) **Ambient Air Quality Standards.**

(1) The provisions of this subsection apply to any stationary source that emits an air pollutant for which there is an ambient air quality standard ("AAQS") found in section 22a-174-24 of the Regulations of Connecticut State Agencies except for any criteria air pollutant other than lead.

(2) If the source complies with the MASC and there is an applicable AAQS, then the owner or operator shall not cause or exacerbate a violation of the applicable AAQS unless the impact of the source is less than significant as listed in Table 3a(i)-1 set forth in section 22a-174-3a(i) of the Regulations of Connecticut State Agencies.

(3) If the source does not comply with the MASC and there is an applicable AAQS, then the owner or operator shall:

(A) Install and use Best Available Control Technology for the applicable hazardous air pollutant; and

(B) Not cause an impact in excess of the applicable AAQS if such impact is significant as listed in Table 3a(i)-1 set forth in section 22a-174-3a(i) of the Regulations of Connecticut State Agencies.

(4) Upon the request of the commissioner, the owner or operator of any stationary source shall make and submit to the commissioner, for his approval, a BACT determination for

each hazardous air pollutant for which an AAQS has been set, as required by the commissioner, including costs estimates of all control options as may be specified by the commissioner.

(5) For the purposes of this subsection, the commissioner shall allow the use of only air quality models, data bases or other requirements approved by the commissioner prior to the determination of compliance with the AAQS.

(e) **Sampling for Hazardous Air Pollutants.**

(1) Testing to determine concentrations of hazardous air pollutants in the ambient air contiguous to a source may be required if the commissioner determines that the operation of a source might reasonably be expected to cause an exceedance of an applicable HLV or AAQS.

(2) In addition to any testing required by section 22a-174-5(e)(2) of the Regulations of Connecticut State Agencies, testing to determine concentrations of hazardous air pollutants at discharge points of sources may be required by the commissioner if:

(A) An exceedance of a HLV with an 8-hour averaging time is observed;

(B) Two (2) or more exceedances of a HLV with a 30-minute averaging time are observed within two (2) non-overlapping 8-hour periods within any seven (7)-day period;

(C) The source is required to meet the requirements of subdivision (b)(2) of this section;

(D) The emissions from a source are suspected of causing a violation of an AAQS;

(E) There is an enforcement action for violation of section 22a-174-20 or 22a-174-23 of the Regulations of Connecticut State Agencies; or

(F) The source is suspected of emitting a hazardous air pollutant listed in Table 29-1.

(3) Testing to determine concentrations of hazardous air pollutants at either discharge points of stationary sources or in the ambient air shall be conducted by the commissioner, the commissioner's authorized representative or by persons qualified by training or experience in the field of sampling emissions from air pollution sources or in the ambient air. All sampling, emissions testing and laboratory analyses shall be done using procedures and techniques approved by the commissioner prior to the commencement of such testing.

(4) In addition to the provisions of subdivision (1) of this subsection, the commissioner shall perform testing for dioxin emissions in the ambient air in accordance with the requirements of this subdivision. The commissioner shall perform the following tests in the area of any resources recovery facility. The tests shall be representative of conditions existing prior to the commencement of operation and representative of conditions existing after the issuance of the permit to operate.

(A) For tests representative of conditions existing prior to the commencement of operation for each subject resources recovery facility the commissioner shall analyze at a minimum a total of eight (8) samples. At a minimum, such tests shall consist of the collection of samples at four locations deemed representative by the commissioner during four distinct time periods and the analysis of two samples for each time period for a total of eight samples. The commissioner shall make every effort to perform such testing once per calendar quarter prior to the commencement of operation.

(B) For tests representative of conditions existing after the issuance of a permit under section 22a-174-3a of the Regulations of Connecticut State Agencies for each subject resources recovery facility the commissioner shall analyze at a minimum a total of eight (8) samples. At a minimum, such tests shall consist of the collection of samples at four locations deemed representative by the commissioner during four distinct time periods and the analysis of two representative samples per calendar quarter for the first year following issuance of a permit under section 22a-174-3a of the Regulations of Connecticut State Agencies. Based upon an analysis of the ambient data, results of stack tests, data from the continuous emission monitors and other pertinent information, the commissioner shall determine a representative ambient sampling program for subsequent years. The commissioner shall provide notice of this determination to the chief elected official of each town participating in the subject resources recovery facility.

(f) **Reporting Requirements**

(1) The owner or "operator" of any "stationary source" shall, upon written notice by the "Commissioner," supply him with information, for those time periods specified, concerning the usage of any substances listed in Table 29-1, 29-2, or 29-3 or the emissions of such substances into the ambient air.

(2) Information required in subdivision (f) (1) shall be provided on forms issued for this purpose by the "Commissioner."

(3) If the "Commissioner" deems that emissions of a "hazardous air pollutant" from a "stationary source" are likely to result in a severe and imminent health hazard, information required in subdivision (f) (1) shall be submitted by the owner or "operator" of the "stationary source" as soon as possible but not later than forty-eight (48) hours after receiving written notice from the "Commissioner."

Nothing in this subdivision shall prevent the "Commissioner" from taking action in accordance with the provisions of Sec. 22a-181 C.G.S.

(4) Except as provided in subdivision (f) (3), such information required in subdivision (f) (2) shall be provided by the owner or "operator" of the "stationary source" within ninety (90) days of written notice by the "Commissioner."

(g) Permits to operate a "stationary source" ordered to comply with any of the provisions of this section.

(1) The "Commissioner" may require the owner or "operator" of a "stationary source" to obtain a permit to operate if he is found by the "Commissioner" not to comply with any of the provisions of subsection (b).

(h) **Objectionable odors and compliance with other regulations**

(1) Compliance with this section by a "stationary source" does not in any manner relieve the owner or "operator" of the responsibility to comply with the provisions of section 22a-174-23 or any other section of these regulations.

(i) **Adjustments to the MASC for Time Periods Less Than 8 Hours.**

Notwithstanding the provisions of subsection (c), the Commissioner may allow an adjustment to the MASC for sources which emit continuously for a period of more than

thirty (30) minutes but less than eight (8) hours by multiplying the MASC determined under subsection (c) by the following factor:

$$\text{Adjustment Factor} = 5 - 4\left(\frac{T - 0.5}{7.5}\right)$$

Where T = Number of hours the source is in continuous operation.

TABLE 29-1

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS* 8-HOUR	VOLUMETRIC UNITS* 30-MINUTE
2-Acetylamino fluorene	53-96-3	—	—	—	—
Acrylonitrile	107-13-1	22	110	0.01	0.05
Aflatoxins	83219-44-7	—	—	—	—
	83219-45-8	—	—	—	—
4-Aminodiphenyl	92-67-1	—	—	—	—
Arsenic & compounds (as As)	7440-38-2	0.05	0.25	—	—
Arsenic pentoxide	1303-28-2	—	—	—	—
Arsine	7784-42-1	1	5	0.25ppbv	1.25 ppbv
Asbestos**	1332-21-4	—	—	—	—
Auramine	2465-27-2	—	—	—	—
Azathioprine	446-86-6	—	—	—	—
Benz(a)pyrene***	50-32-8	—	—	—	—
Benzene	71-43-2	150	750	0.05	0.25
Benzidine	92-87-5	—	—	—	—
Beryllium	7440-41-7	0.01	0.05	—	—
Beryllium oxide	1304-56-9	—	—	—	—
Beryllium sulfate	13510-49-1	—	—	—	—
Chlorambucil	305-03-3	—	—	—	—
Chlordane	57-74-9	2.5	12.5	—	—
Chlorinated camphene	8001-35-2	2.5	12.5	—	—
Chlornaphthazine	494-03-1	—	—	—	—
Chlorobenzilate	510-15-4	—	—	—	—
Chloroform	67-66-3	250	1,250	0.05	0.25
bis-Chloromethyl ether	542-88-1	0.015	0.075	5.pptv	25.pptv
Chloromethyl methyl ether	107-30-2	—	—	—	—

* Volumetric units are in parts per million by volume, unless shown as parts per billion by volume (ppbv) or parts per trillion by volume (pptv).
** The "HLV" for asbestos (all forms, including amosite, chrysotile, crocidolite, tremolite, and fibrous talc) is 500 fibers, of a length of 5 micrometers or more, per cubic meter (8-hour average and 2,500 fibers, of a length of 5 micrometers or more, per cubic meter (30-min. average).
*** See Polycyclic Aromatic Hydrocarbons

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-1, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
Chromic acid and chromates (as Cr)...	—	0.25	1.25	—	—
Chromite ore processing (chromate), as Cr...	—	0.25	1.25	—	—
Chromium, metal...	7440-47-3	2.5	12.5	—	—
Coal tar pitch volatiles...	8007-45-2	1	5	—	—
Coke oven emissions...	—	—	—	—	—
Cyclophosphamide...	50-18-0	—	—	—	—
Dibromochloropropane...	96-12-8	0.05	0.25	—	—
3,3'-Dichlorobenzidine...	91-94-1	—	—	—	—
1,2-Dichloroethane...	107-06-2	20	100	5.ppbv	25.ppbv
Diethylstilboestriol...	39011-86-4	—	—	—	—
Diethyl sulfate...	64-67-5	—	—	—	—
4-Dimethylaminoazobenzene...	60-11-7	—	—	—	—
Dimethyl sulfate...	77-78-1	2.5	12.5	0.5 ppbv	2.5 ppbv
Dioxane, technical grade...	123-91-1	450	2,250	0.125	0.625
Estrogens...	—	—	—	—	—
Ethylene dichloride...	107-06-2	20	100	5.ppbv	25.ppbv
Heptachlor...	76-44-8	2.5	12.5	—	—
Hexachloroethane...	67-72-1	50	250	5.ppbv	25.ppbv
Kepone...	143-50-0	—	—	—	—
Melphalan...	148-82-3	—	—	—	—
4,4'-Methylene bis (2-chloraniline)...	101-14-4	0.015	0.075	—	—
MOCA...	101-14-4	0.015	0.075	—	—
Morpholine...	110-91-8	350	1,750	0.1	0.5
Mustard gas...	505-60-2	—	—	—	—
Myleran...	55-98-1	—	—	—	—
beta-Napthylamine...	91-59-8	—	—	—	—
Nickel carbonyl, as Ni...	13463-39-3	1.75	8.75	0.25ppbv	1.25 pp
Nickel (metal)...	7440-02-0	5	25	—	—
Nickel, soluble compounds (as Ni)*...	—	0.075	0.375	—	—

* Carcinogens

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardc air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-1, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
Nickel sulfide	12035-72-2	—	—	—	—
Nickel sulfide roasting, fume	—	—	—	—	—
and dust (as Ni)	—	5	25	—	—
4-Nitrodiphenyl	92-93-3	—	—	—	—
Nitrogen mustard	55-86-7	—	—	—	—
n-Nitrosodimethylamine	62-75-9	—	—	—	—
Oxymetholone	434-07-1	—	—	—	—
Perchloroethylene**	127-18-4	1,700	8,500	0.25	1.25
Phenacetin	62-44-2	—	—	—	—
Polynuclear aromatic hydrocarbons (PAH)	50-32-8	0.1*	0.5*	—	—
beta-Propiolactone	57-57-8	7.5	37.5	2.5ppbv	12.5 ppbv
1,1,2,2-Tetrachloroethane	79-34-5	34.4	172	5.ppbv	25.ppbv
Thorium dioxide	1314-20-1	—	—	—	—
o-Toluidine	95-53-4	45	225	0.01	0.5
Toxaphene	8001-35-2	2.5	12.5	—	—
Treosulfan	299-75-2	—	—	—	—
1,1,2-Trichloroethane	79-00-5	225	1,125	0.05	0.25
Trichloroethylene	79-01-6	1,350	6,750	0.25	1.25
2,4,6-Trichlorophenol	88-06-2	—	—	—	—
Vinyl chloride	75-01-4	50	250	0.025	0.125

* Benzene-soluble fraction

** Perchloroethylene has been placed in Group 1 provisionally, pending further research by the Department of Health Services and the "Hazardous Air Pollutant Review Panel".Polycyclic Aromati Hydrocarbons

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardc air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-2

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS* 8-HOUR	VOLUMETRIC UNITS* 30-MINUTE
Actinomycin D	1402-38-6	—	—	—	—
Adriamycin	23214-92-8	—	—	—	—
Aldrin	309-00-2	1.5	7.5	—	—
Allyl glycidyl ether	106-92-3	220	1,100	0.05	0.25
2-Aminoanthraquinone	117-79-3	—	—	—	—
1-Amino-2-methylanthraquinone	82-28-0	—	—	—	—
3-Amino 1,2,4-triazole (amitrole)	61-82-5	—	—	—	—
o-Anisidine	29191-52-4	5	25	1.ppbv	5.ppbv
Antimony trioxide, handling & use (as Sb)	1309-64-4	5	25	—	—
Antimony trioxide production (as Sb)	1309-64-4	5	25	—	—
Aramite	140-57-8	—	—	—	—
Arsenic trioxide production (as As)	1327-53-3	0.25	1.25	—	—
Benz(a)anthracene	56-55-3	—	—	—	—
Benzo(b)fluoranthene	205-99-2	—	—	—	—
Benzotrichloride	98-07-7	—	—	—	—
Brominated biphenyls					
Butadiene (1,3-butadiene)	106-99-0	22,000	110,000	10	50
n-Butyl glycidyl ether (BGE)	2426-08-6	1,350	6,750	0.25	1.25
Cadmium	7440-43-9	0.4	2.0	—	—
Cadmium dust & salts (as Cd)	7440-43-9	0.4	2.0	—	—
Cadmium oxide fume (as Cd)	1306-19-0	1.0	5.0	—	—
Cadmium sulfate	10124-36-4	—	—	—	—
Carbon tetrachloride	56-23-5	300	1,500	0.05	0.25
Chloramphenicol	56-75-7	—	—	—	—
1-Chloro,2,3-epoxypropane	106-89-8	20	100	6.ppbv	30.ppbv
bis-Chloroethyl nitrosourea (BCNU)	154-60-1	—	—	—	—
1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	13909-09-6	—	—	—	—
Chrysene	218-01-9	—	—	—	—
Cisplatin	15663-27-1	—	—	—	—
p-Cresidine	120-71-8	—	—	—	—

* Volumetric units are in parts per million by volume, unless shown as parts per billion by volu (ppbv) or parts per trillion by volume (pptv).

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardo air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-2, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS* 8-HOUR	30-MINUTE
Cupferron	135-20-6	—	—	—	—
Cycasin	14901-08-7	—	—	—	—
Dacarbazene	4342-03-4	—	—	—	—
DDT (Dichlorodiphenyl-trichloro-ethane)	50-29-3	5	25		
2,4-Diaminoanisole sulfate	39156-41-7	—	—	—	—
Dibenz(a,h) anthracene	53-70-3	—	—	—	—
7H-Dibenzo(c,g) carbazole	194-59-2	—	—	—	—
Dibenzo(a,h) pyrene	189-64-0	—	—	—	—
Dibenzo(a,i) pyrene	189-55-9	—	—	—	—
1,2-Dibromoethane	106-93-4	1,550	7,750	0.2	1
Dienestrol	84-17-3	—	—	—	—
Diepoxybutane	1464-53-5	—	—	—	—
Di-2,3-epoxypropyl ether	2238-07-5	10	50	—	—
Di(2-ethylhexyl) phthalate	117-81-7	50	250	—	—
3-3'-Dimethoxybenzidine	119-90-4	—	—	—	—
4-Dimethylaminobenzene	1300-73-8	100	500	0.21	0.1
3,3'-Dimethylbenzidine	119-93-7	—	—	—	—
Dimethyl carbamoyl chloride	79-44-7	—	—	—	—
1,1-Dimethylhydrazine	57-14-7	10	50	5.ppbv	25.ppbv
3,3'-Dimethyloxybenzidine	119-90-4	—	—	—	—
Dinitrotoluene	121-14-2	15	75	—	—
Direct Black 38	1937-37-7	—	—	—	—
Direct Blue 6	2610-05-1	—	—	—	—
Direct Brown 95	10300-74-0	—	—	—	—
Epichlorhydrin	106-89-8	20	100	6.ppbv	30.ppbv
Ethinylestridiol	57-63-6	—	—	—	—
Ethylene dibromide	106-93-4	1,550	7,750	0.2	1
Ethylene oxide	75-21-8	20	100	0.01	0.05
Ethylene thiourea	96-45-7	—	—	—	—
Formaldehyde	50-00-0	12	60	0.01	0.05
Hexachlorobenzene	118-74-1	—	—	—	—
Hexachlorobutadiene	87-68-3	2.4	12	—	—
Hexamethyl phosphoramide	680-31-9	—	—	—	—
Hydrazine	302-01-2	1	5	1.ppbv	5.ppbv

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-2, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Hydrazine sulfate	10034-93-2	—	—	—	—
Hydrazobenzene	122-66-7	—	—	—	—
Indeno(1,2,3-cd) pyrene	193-39-5	—	—	—	—
Iron dextran complex	9004-66-4	—	—	—	—
Isopropyl glycidyl ether (IGE)	4016-14-2	2,400	12,000	0.5	2.5
Lead acetate	301-04-2	—	—	—	—
Lead chromate (as Cr)	18454-12-1	0.5	2.5	—	—
Lead phosphate	7446-27-7	—	—	—	—
Lindane	58-89-9	5	25	—	—
Mestranol	72-33-3	—	—	—	—
4,4-Methylene dianiline	101-77-9	8	40	1.ppbv	5.ppbv
4,4'-Methylene bis (n,n-dimethyl) benzenamide	101-61-1	—	—	—	—
Methyl hydrazine	60-34-4	—	—	—	—
Methyl iodide	74-88-4	100	500	0.02	0.1
Metronidazole	443-48-1	—	—	—	—
Michler's ketone	90-94-8	—	—	—	—
Mirex	2385-85-5	—	—	—	—
Monomethyl hydrazine	60-34-4	—	—	—	—
Nitrilotriacetic acid	139-13-9	—	—	—	—
5-Nitro-o-anisidine	99-59-2	—	—	—	—
Nitrofen	1836-75-5	—	—	—	—
2-Nitropropane	79-46-9	360	1,800	0.1	0.5
Nitrosamines	—	—	—	—	—
n-Nitrosodi-n-butylamine	924-16-3	—	—	—	—
n-Nitrosodiethanolamine	1116-54-7	—	—	—	—
n-Nitrosodiethylamine	55-18-5	—	—	—	—
n-Nitrosodiphenylamine	86-30-6	—	—	—	—
n-Nitrosodi-n-propylamine	621-64-7	—	—	—	—
n-Nitroso-n-ethylurea	759-73-9	—	—	—	—
n-Nitroso-n-methylurea	684-93-5	—	—	—	—
n-Nitrosomethylvinylamine	4549-40-0	—	—	—	—
n-Nitrosomorpholine	59-89-2	—	—	—	—
n-Nitrosonornicotine	16543-55-8	—	—	—	—
n-Nitrosopiperidine	100-75-4	—	—	—	—

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-2, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
n-Nitrosopyrrolidine	930-55-2	—	—	—	—
n-Nitrososarcosine	28661-60-3	—	—	—	—
Norethisterone	68-22-4	—	—	—	—
Oestradiol-17-beta	2529-64-8	—	—	—	—
Oestrone	53-16-7	—	—	—	—
Phenazopyridine	94-78-0	—	—	—	—
Phenazopyridine hydrochloride	136-40-3	—	—	—	—
Phenantoin (and sodium salt)	50-12-4	—	—	—	—
Phenoxyacetic acid herbicides	—	—	—	—	—
Phenyl glycidyl ether (PGE)	122-60-1	60	300	0.01	0.05
Phenylhydrazine	100-63-0	200	1,000	0.05	0.25
Phenyl-2-naphthylamine	135-88-6	—	—	—	—
Phenytain	57-41-0	—	—	—	—
Polybrominated biphenyls	—	—	—	—	—
Polychlorinated biphenyls:					
42% Cl	53469-21-9	0.01	0.05	—	—
54% Cl	11097-69-1	0.01	0.05	—	—
Procarbazine hydrochloride	366-70-1	—	—	—	—
Progesterone	57-83-0	—	—	—	—
Propane sultone	1120-71-4	—	—	—	—
Propylene imine	75-55-8	50	250	0.02	0.1
Propylthiouracil	51-52-5	—	—	—	—
Reserpine	50-55-5	—	—	—	—
Saccharins	81-07-2	—	—	—	—
Safrole	94-59-7	—	—	—	—
Selenium sulfide	7446-34-6	—	—	—	—
Streptozotocin	18883-66-4	—	—	—	—
Sulfallate	95-06-7	—	—	—	—
Tetrachlorinated dibenzo-p-dioxins*	1746-01-6	—	—	—	—
Thioacetamide	62-55-5	—	—	—	—
Thiotepa	52-24-4	—	—	—	—
Thiourea	62-56-6	—	—	—	—
o-Tolidine	119-93-7	—	—	—	—

* The "HLV" for dioxin is 0.7 picograms per cubic meter (8-hour average). There is no "HLV" in volumetric units. Concentration is expressed in terms of 2,3,7,8 dibenzo-p-dioxin equivalents, as defined in section 22a-174-1. There is an "ambient air quality standard" for this substance contained in section 22a-174-24.

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-2, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
p-Toluidine	106-49-0	90	450	0.02	0.1
o-Toluidine hydrochloride	636-21-5	—	—	—	—
Triaziquone	68-76-8	—	—	—	—
Tris(1-aziridinyl)phosphine sulfide	140-56-7	—	—	—	—
Tris (2,3-dibromopropyl)phosphate	126-72-7	—	—	—	—
Uracil mustard	66-75-1	—	—	—	—
Urethane	51-79-6	—	—	—	—
Vinyl bromide	593-60-2	44	220	11.ppbv	55.ppbv
Vinyl cyclohexene dioxide	106-87-6	600	3,000	0.10.5	
Xylidine	1330-73-8	100	500	0.02	0.1
Zinc chromate (as Cr)	13530-65-9	0.5	2.5	—	—

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS* 8-HOUR	30-MINUTE
Acetaldehyde	75-07-0	3,600	18,000	2	10
Acetic acid	69-19-7	500	2,500	0.2	1
Acetic anhydride	108-24-7	400	2,000	0.1	0.5
Acetone	67-64-1	11,800	59,000	5	25
Acetone cyanohydrin	75-86-5	—	—	—	—
Acetonitrile	75-05-8	680	3,400	0.39	1.95
Acetylene	74-86-2	—	—	—	—
Acetylene dichloride	540-59-0	15,800	79,000	4	20
Acetylene tetrabromide	79-27-6	280	1,400	0.02	0.1
Acetylsalicylic acid	50-78-2	100	500	—	—
Acrolein	107-02-8	5	25	2.ppbv	10.ppbv
Acrylamide	79-06-1	6	30	—	—
Acrylic acid	79-10-7	600	3,000	0.2	1
Adiponitrile	111-69-3	360	1,800	0.08	0.4
Allyl alcohol	107-18-6	100	500	0.04	0.2
Allyl chloride	107-05-1	60	300	0.02	0.1
Allyl propyl disulfide	2179-59-1	240	1,200	0.04	0.2
Aluminum metal and oxide	7429-90-5	200	1,000	—	—
Aluminum pyro powder	—	100	500	—	—
Aluminum welding fumes	—	100	500	—	—
Aluminum soluble salts	—	40	200	—	—
Aluminum alkyls (not otherwise classified)	—	40	200	—	—
2-Aminoethanol	141-43-5	120	600	0.04	0.2
2-Aminopyridine	504-29-0	40	200	0.01	0.05
Ammonia	7664-41-7	360	1,800	0.5	2.5
Ammonium chloride fume	12125-02-9	200	1,000	—	—
Ammonium sulfamate	7773-06-0	200	1,000	—	—
n-Amyl acetate	628-63-7	10,500	52,500	2	10
sec-Amyl acetate	626-38-0	13,000	65,000	2.5	10
Aniline	62-53-3	200	1,000	0.04	0.2
p-Anisidine	29191-52-4	10	50	2.ppbv	10.ppbv
Antimony & compounds (as Sb)	—	10	50	—	—
ANTU (-Naphthyl thiourea)	86-88-4	6	30	—	—
Asphalt (petroleum) fumes	8052-42-4	100	500	—	—

* Volumetric units are in parts per million by volume, unless shown as parts per billion by volume (ppbv) or parts per trillion by volume (pptv).

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS* 8-HOUR	30-MINUTE
Atrazine	1912-24-9	100	500	—	—
Azinphos-methyl	86-50-0	4	20	—	—
Barium (soluble compounds), as Ba	7440-39-3	10	50	—	—
Baygon (propoxur)	114-26-1	10	50	—	—
Benomyl	17804-35-2	200	1,000	—	—
Benzal chloride	98-87-3	—	—	—	—
Benzenethiol	108-98-5	40	200	0.01	0.05
Benzo(r,s,t) pentaphene	189-55-9	—	—	—	—
p-Benzoquinone	106-51-4	8	40	2.ppbv	10.ppbv
Benzoyl chloride	98-88-4	—	—	—	—
Benzoyl peroxide	94-36-0	100	500	—	—
Benzyl chloride	100-44-7	100	500	0.02	0.1
Biphenyl	92-52-4	30	150	2.6 ppbv	13.ppbv
Bismuth telluride	1304-82-1	200	1,000	—	—
Bismuth telluride, Se-doped	—	100	500	—	—
Borates, tetra, sodium salts					
- anhydrous	1303-96-4	20	100	—	—
- decahydrate	1303-96-4	100	500	—	—
- pentahydrate	1303-96-4	20	100	—	—
Boron oxide	1303-86-2	200	1,000	—	—
Boron tribromide	10294-33-4	200	1,000	0.02	0.1
Boron trifluoride	7637-07-2	—	—	—	—
Bromacil	314-40-9	200	1,000	0.02	0.1
Bromine	7726-95-6	14	70	2.ppbv	10.ppbv
Bromine pentafluoride	7789-30-2	14	70	2.ppbv	10.ppbv
Bromochloromethane/chlorobromomethane	74-97-5	21,000	105,000	4	20
Bromoform	75-25-2	100	500	0.01	0.05
Butane	106-97-8	38,000	190,000	16	80
1-Butanethiol	109-79-5	30	150	0.01	0.05
2-Butanethiol	513-53-1	30	150	0.01	0.05
2-Butanone	78-93-3	11,800	59,000	4	20
2-Butoxyethanol	111-76-2	2,400	12,000	0.5	2.5
n-Butyl acetate	123-86-4	14,200	71,000	3	15
sec-Butyl acetate	105-46-4	19,000	95,000	4	20
tert-Butyl acetate	540-88-5	19,000	95,000	4	20

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Butyl acrylate	141-32-2	1,100	5,500	0.2	1
n-Butyl alcohol	71-36-3	6,000	30,000	2	10
sec-Butyl alcohol	78-92-2	6,100	30,500	2	10
tert-Butyl alcohol	75-65-1	6,000	30,000	2	10
Butylamine	109-73-9	—	—	—	—
tert-Butyl chromate (as CrO3)	1189-85-1	—	—	—	—
n-Butyl lactate	138-22-7	500	2,500	0.1	0.5
Butyl mercaptan	109-79-5	30	150	0.01	0.05
o-sec-Butylphenol	89-72-5	600	3,000	0.1	0.5
p-tert-Butyltoluene	98-51-1	1,200	6,000	0.2	1
n-Butyronitrile	109-74-0	440	2,200	0.16	0.8
Cadmium oxide production	1306-19-0	1	5	—	—
Calcium arsenate (as As)	7778-44-1	—	—	—	—
Calcium cyanamide	156-62-7	10	50	—	—
Calcium hydroxide	1305-62-0	100	500	—	—
Calcium oxide	1305-78-8	40	200	—	—
Camphor, synthetic	76-22-2	240	1,200	0.04	0.2
Caprolactam dust	105-60-2	20	100	—	—
Caprolactam vapor	105-60-2	400	2,000	0.1	0.5
Captafol (difolatan)	2425-06-1	2	10	—	—
Captan	113-06-2	100	500	—	—
Carbaryl (Sevin)	63-25-2	100	500	—	—
Carbofuran (Furadan)	1563-66-2	2	10	—	—
Carbon black	1333-86-4	70	350	—	—
Carbon disulfide	75-15-0	60	300	0.02	0.1
Carbon tetrabromide	558-13-4	28	140	2.ppbv	10.ppbv
Carbonyl chloride (Phosgene)	75-44-5	8	40	2.ppbv	10.ppbv
Carbonyl fluoride	353-50-4	100	500	0.04	0.2
Catechol	120-80-9	400	2,000	0.1	0.5
Cesium hydroxide	21351-79-1	40	200	—	—
2-Chloraniline	106-47-8	0.06	0.3	0.01 ppbv	0.05 ppbv
Chlorinated diphenyl oxide	55720-99-5	10	50	—	—
Chlorine	7782-50-5	60	300	0.02	0.1
Chlorine dioxide	10049-04-4	6	30	2.ppbv	10.ppbv
Chlorine trifluoride	7790-91-2	—	—	—	—

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TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Chlormadione acetate	302-22-7	—	—	—	—
Chloroacetaldehyde	107-20-0	—	—	—	—
alpha - Chloroacetophenone (Phenacyl chloride)	532-27-4	6	30	1.ppbv	5.ppbv
Chloroacetyl chloride	79-04-9	4	20	1.ppbv	5.ppbv
Chlorobenzene	108-90-7	7,000	35,000	1.5	7.5
o-Chlorobenzylidene malonitrile	2698-41-1	8	40	1.ppbv	5.ppbv
Chlorobromomethane/bromochloromethane.	74-97-5	21,000	105,000	4	20
2-Chloro-1,3-butadiene	126-99-8	900	4,500	0.2	1
Chlorodifluoromethane	75-45-6	70,000	350,000	20	100
Chlorodiphenyl (42% Chlorine)	53469-21-9	20	100	—	—
Chlorodiphenyl (54% Chlorine)	11097-69-1	10	50	—	—
2-Chloroethanol	107-07-3	320	1,600	0.1	0.5
Chloropentafluoroethane	76-15-3	126,400	632,000	20	100
1-Chloro-1-nitro-propane	600-25-9	200	1,000	0.04	0.2
Chloropicrin	76-06-2	14	70	2.ppbv	10.ppbv
beta - Chloroprene	126-99-8		900	4,500	0.2 1
o-Chlorostyrene	1331-28-8	5,700	28,500	1	5
o-Chlorotoluene	95-49-8	5,000	25,000	1	5
Chloropyrifos (Dursban)	2921-88-2	4	20	—	—
Chromium (II) compounds, as Cr.	—	10	50	—	—
Chromium (III) compounds, as Cr.	—	10	50	—	—
Chromium (IV) compounds, non-carcinogenic, as Cr.	—	0.5	2.5	—	—
Chromyl chloride	14977-61-8	3	15	0.5ppbv	2.5ppbv
Clofibrate	637-07-1	—	—	—	—
Clomiprene	911-45-5	—	—	—	—
Clopidol	2971-90-6	200	1,000	—	—
Coal dust	—	40	200	—	—
Cobalt metal, dust & fume (as Co)	7440-48-4	2	10	—	—
Cobalt carbonyl, as Co	00000-00-0	2	10	—	—
Cobalt hydrocarbonyl, (as Co)	16842-03-8	2	10	—	—
Copper - dusts & mists (as Cu)	7440-50-8	20	100	—	—
Copper fume	7440-50-8	2	10	—	—
Cotton dust, raw	—	4	20	—	—

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardousair pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Crag herbicide	558-22-9	300	1,500	—	—
Cresol	1319-77-3	200	1,000	0.048	0.24
Crotonaldehyde	123-73-9	120	600	0.04	0.2
Crufomate	299-86-5	100	500	—	—
Cumene	98-82-8	4,900	24,500	1	5
Cyanamide	420-04-2	40	200	—	—
Cyanides, as CN	51-50-8	100	500	—	—
	143-33-9	100	500	—	—
Cyanogen	460-19-5	400	2,000	0.2	1
Cyanogen chloride	506-77-4	—	—	—	—
Cyclamates	100-88-9	—	—	—	—
Cyclohexane	110-82-7	21,000	105,000	6	30
Cyclohexanethiol	1569-69-3	—	—	—	—
Cyclohexanol	108-93-0	4,000	20,000	1	5
Cyclohexanone	108-94-1	2,000	10,000	0.5	2.5
Cyclohexene	110-83-8	20,300	101,500	6	30
Cyclohexylamine	108-91-8	800	4,000	0.2	1
Cyclonite	121-82-4	30	150	—	—
Cyclopentadiene	542-92-7	4,000	20,000	1.5	7.5
Cyclopentane	287-92-3	17,000	85,000	6	30
Cyhexatin	13121-70-5	—	—	—	—
2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	200	1,000	—	—
Dalapon	75-99-0	120	600	0.02	0.1
Dapsone	80-08-0	—	—	—	—
Decaborane	17702-41-9	6	30	1.ppbv	5.ppbv
Decanethiol	143-10-2	—	—	—	—
Demeton	8065-48-3	2	10	0.2 ppbv	1.ppbv
Diacetone alcohol	123-42-2	4,800	24,000	1	5
1,2-Diaminoethane	107-15-3	500	2,500	0.2	1
Diazinon	333-41-5	2	10	—	—
Diazomethane	334-88-3	8	40	4.ppbv	20.ppbv
Diborane	19287-45-7	2	10	2.ppbv	10.ppbv
Dibrom	300-76-5	60	300	—	—
2-n-Dibutylaminoethanol	102-81-8	280	1,400	0.04	0.2

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TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
Dibutyl phosphate	107-66-4	100	500	0.02	0.1
Dibutyl phthalate	84-74-2	100	500	—	—
Dichloracetylene	7572-29-4	—	—	—	—
o-Dichlorobenzene	95-50-1	—	—	—	—
p-Dichlorobenzene	106-46-7	9,000	45,000	1.5	7.5
Dichlorodifluoromethane	75-71-8	99,000	495,000	20	100
1,3-Dichloro-5,5-dimethyl hydantoin	118-52-5	4	20	—	—
1,1-Dichloroethane	75-34-3	8,000	40,000	2	10
1,2-Dichloroethylene	540-59-0	15,800	79,000	4	20
Dichloroethyl ether	111-44-4	600	3,000	0.1	0.5
Dichloromethane	75-09-2	7,000	35,000	2	10
Dichloromonofluoromethane	75-43-4	800	4,000	0.2	1
1,1-Dichloro-1-nitroethane	594-72-9	200	1,000	0.04	0.2
Dichloropropene	542-75-6	100	500	0.02	0.1
2,2-Dichloropropionic acid	75-99-0	120	600	0.02	0.1
Dichlorotetrafluoroethane	76-14-2	140,000	700,000	20	100
Dichlorvos (DDVP)	62-73-7	20	100	2.ppbv	10.ppbv
Dicrotophos (Bidrin)	141-66-2	5	25	—	—
Dicyclohexyl methane 4,4'-diisocyanate	—	1.1	5.5	—	—
Dicyclopentadiene	77-73-6	600	3,000	0.1	0.5
Dicyclopentadienyl iron	102-54-5	200	1,000	—	—
Dieldrin	60-57-1	5	25	—	—
Diethanolamine	111-42-2	300	1,500	0.06	0.3
Diethylamine	109-89-7	600	3,000	0.2	1
Diethylaminoethanol	100-37-8	1,000	5,000	0.2	1
Diethyl ether	60-29-7	24,000	120,000	8	40
Diethyl ketone	96-22-0	14,100	70,500	4	20
Diethyl phthalate	84-66-2	100	500	—	—
Diethylene triamine	111-40-0	80	400	0.02	0.1
Difluorodibromomethane	75-61-6	17,200	86,000	2	10
Diglycidal ether	2238-07-5	10	50	2.ppbv	10.ppbv
Diisobutyl ketone	108-83-8	2,800	14,000	0.46	2.3
Diisocyanates, not listed	—	—	—	0.1 ppbv	0.5 ppbv
Diisopropylamine	108-18-9	400	2,000	0.1	0.5

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TABLE 29-3. Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Dimethisterone	79-64-1	—	—	—	—
Dimethoxymethane	109-87-5	62,000	310,000	20	100
Dimethyl acetamide	127-19-5	700	3,500	0.2	1
Dimethylamine	124-40-3	360	1,800	0.2	1
Dimethylaniline	121-69-7	500	2,500	0.1	0.5
Dimethylformamide	68-12-2	600	3,000	0.2	1
Dimethylphthalate	131-11-3	100	500	—	—
Dinitolmide	148-01-6	100	500	—	—
Dinitrobenzene - o isomer	528-29-0	20	100	3.ppbv	15.ppbv
Dinitrobenzeze - m isomer	99-65-0	20	100	3.ppbv	15.ppbv
Dinitrobenzene - p isomer	100-25-4	20	100	3.ppbv	15.ppbv
Dinitro-o-cresol	534-52-1	4	20	—	—
3,5-Dinitro-o-toluamide (Dinitolmide)	148-01-6	100	500	—	—
Dioxathion (Delnav)	78-34-2	4	20	—	—
Diphenyl	92-52-4	20	100	2.6 ppbv	13.ppbv
Diphenylamine	122-39-4	200	1,000	—	—
Diphenylmethane diisocyanate	101-68-8	1	5	—	—
Diphenylphthalate	—	—	—	—	—
Dipropylene glycol methyl ether	34590-94-8	12,000	60,000	2	10
Dipropyl ketone	123-19-3	4,700	23,500	1	5
Diquat	85-00-7	10	50	—	—
Di-sec octyl phthalate	117-81-7	100	500	—	—
Disulfiram	97-77-8	40	200	—	—
Disulfoton	298-04-4	2	10	—	—
Disyston	298-04-4	2	10	—	—
2,6-Ditert butyl-p-cresol	128-37-0	200	1,000	—	—
Diuron	330-54-1	200	1,000	—	—
Divinyl benzene	108-57-6	1,000	5,000	—	—
Dodecanethiol	—	—	—	—	—
Dyfonate	944-22-9	2	10	—	—
Endosulfan	115-29-7	2	10	—	—
Endrin	72-20-8	2	10	—	—
EPN	2104-64-5	10	50	—	—
Ethane	74-84-0	—	—	—	—
Ethanol	64-17-5	38,000	190,000	20	100
Ethanolamine	141-43-5	120	600	0.04	0.2

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
thion	563-12-2	8	40	—	—
-Ethoxyethanol	110-80-5	380	1,900	0.1	0.5
-Ethoxyethyl acetate	111-15-9	540	2,700	0.1	0.5
thyl acetate	141-78-6	28,000	140,000	8	40
thyl acrylate	140-88-5	400	2,000	0.1	0.5
thylamine	75-04-7	360	1,800	0.2	1
Ethyl sec-amyl ketone	541-85-5	2,600	13,000	0.6	3
Ethyl benzene	100-41-4	8,700	43,500	2	10
Ethyl bromide	74-96-4	17,800	89,000	4	20
Ethylbutyl ketone	106-35-4	4,600	23,000	1	5
Ethyl chloride	75-00-3	52,000	260,000	20	100
Ethylene	74-85-1	—	—	—	—
Ethylene chlorohydrin	107-07-3	320	1,600	0.1	0.5
Ethylenediamine	107-15-3	500	2,500	0.2	1
Ethylene glycol dinitrate	628-96-6	6	30	1.ppbv	5.ppbv
Ethylene glycol monomethyl ether acetate	110-49-6	480	2,400	0.1	0.5
Ethylene glycol, vapor	107-21-1	—	—	—	—
Ethylenimine	151-56-4	20	100	0.01	0.05
Ethyl ether	60-29-7	24,000	120,000	8	40
Ethyl formate	109-94-4	6,000	30,000	2	10
Ethylidene norbornene	16219-75-3	—	—	—	—
Ethyl mercaptan	75-08-1	20	100	0.01	0.05
n-Ethylmorpholine	100-74-3	460	2,300	0.1	0.5
Ethyl silicate	78-10-4	1,700	8,500	0.2	1
Ethynodiol acetate	297-76-7	—	—	—	—
Fenamiphos	22224-92-6	2	10	—	—
Fensulfothion (Dasanit)	115-90-2	2	10	—	—
Fenthion	55-38-9	4	20	—	—
Ferbam	14484-64-1	200	1,000	—	—
Ferrovanadium dust	12604-58-9	20	100	—	—
Fluorides (as F)	—	50	250	—	—
Fluorine	7782-41-1	4	20	2.ppbv	10.ppbv

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TABLE 29-3. Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
Fluorotrichloromethane	75-69-4	112,000	560,000	20	100
5-Fluorouracil	51-21-8	—	—	—	—
Fonofos	944-22-9	2	10	—	—
Formamide	75-12-7	600	3,000	0.4	2
Formic acid	64-18-6	180	900	0.1	0.5
Furfural	98-01-1	160	800	0.04	0.2
Furfuryl alcohol	98-00-0	800	4,000	0.2	1
Gasoline	8006-61-9	18,000	90,000	6	30
Germanium tetrahydride	7782-65-2	12	60	4.ppbv	20.ppbv
Glass (dust)	—	100.*	500.*	—	—
Glass (fibrous)**	—	—	—	—	—
Glutaraldehyde, activated or unactivated	111-30-8	14	70	—	—
Glycerin mist	56-81-5	—	—	—	—
Glycidol	556-52-5	1,500	7,500	0.5	2.5
Glyconitrile	107-16-4	—	—	—	—
Guthion (Azinphos-Methyl)	86-50-0	4	20	—	—
Hafnium	7440-58-6	10	50	—	—
Hematite	1317-60-8	—	—	—	—
Heptane (n-Heptane)	142-82-5	7,000	35,000	1.75	8.75
Heptanethiol	1639-09-4	—	—	—	—
Hexachlorocyclohexane	319-85-7	—	—	—	—
Hexachlorocyclopentadiene	77-47-4	2	10	0.2	1
Hexachloronaphthalene	1335-87-1	4	20	—	—
Hexadecanethiol	—	—	—	—	—
Hexafluoroacetone	684-16-2	14	70	2.ppbv	10.ppbv
Hexamethylene diisocyanate	822-06-0	0.7	3.5	—	—
Hexane (n-hexane)	110-54-3	3,600	18,000	1	5
Hexane, other isomers	110-54-3	36,000	180,000	10	50
Hexanethiol	111-31-9	—	—	—	—
2-Hexanone	591-78-6	400	2,000	0.1	0.5
Hexone	108-10-1	4,100	20,500	1	5
sec-Hexyl acetate	108-84-9	6,000	30,000	1	5
Hexylene glycol	107-41-5	—	—	—	—
Hydralazine	86-54-4	—	—	—	—

* Respirable

** The "HLV" for fibrous glass is 60,000 fibers of a length of 5 microns or greater per cubic meter (8-hour average) or 300,000 fibers of length of 5 microns or greater per cubic meter (30-minute average).

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TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Hydrazinobenzene	100-63-0	400	2,000	0.1	0.5
Hydrochloride o-anisidine	—	—	—	—	—
Hydrogenated terphenyls	92-94-4	100	500	0.01	0.05
Hydrogen bromide	10035-10-6	200	1,000	0.06	0.3
Hydrogen chloride	7647-01-0	—	—	—	—
Hydrogen cyanide	74-90-8	220	1,100	0.2	1
Hydrogen fluoride	7664-39-3	50	250	0.06	0.3
Hydrogen peroxide	7722-84-1	28	140	0.02	0.1
Hydrogen selenide	7783-07-5	4	20	1.ppbv	5.ppbv
Hydrogen sulfide	7783-06-4	280	1,400	0.2	1
Hydroquinone	123-31-9	40	200	—	—
17x-Hydroxyprogesterone caproate	—	—	—	—	—
2-Hydroxypropyl acrylate	999-61-1	60	300	0.01	0.05
Indene	95-13-6	900	4,500	0.2	1
Indium & Compounds (as In)	7440-74-6	2	10	—	—
Iodine	7553-56-2	—	—	—	—
Iodoform	75-47-8	200	1,000	0.012	0.06
Iron oxide fume	1309-37-1	100	500	—	—
Iron pentacarbonyl	13463-40-6	16	80	2.ppbv	10.ppbv
Iron salts, soluble (as Fe)	—	20	100	—	—
Isoamyl acetate	123-92-2	10,500	52,500	2	10
Isoamyl alcohol	123-51-3	7,200	36,000	2	10
Isobutyl acetate	110-19-0	14,000	70,000	3	15
Isobutyl alcohol	78-83-1	3,000	15,000	1	5
Isobutyronitrile	78-82-0	440	2,200	0.16	0.8
Isonicotinic acid hydrazide	55-22-1	—	—	—	—
Isooctyl alcohol	26952-21-6	5,400	27,000	1	5
Isophorone	78-59-1	460	2,300	0.1	0.5
Isophorone diisocyanate	4098-71-9	0.9	4.5	0.1ppbv	0.5pbv
Isopropoxyethanol	109-59-1	2,100	10,500	0.5	2.5
Isopropyl acetate	108-21-4	19,000	95,000	5	25
Isopropyl alcohol	67-63-0	19,600	98,000	8	40
Isopropylamine	75-31-0	240	1,200	0.1	0.5
n-Isopropyl aniline	643-28-7	200	1,000	0.04	0.2
Isopropyl ether	108-20-3	21,000	105,000	5	25

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TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Isopropyl oils	—	—	—	—	—
Kerosene	8008-20-6	2,000	10,000	—	—
Ketene	463-51-4	18	90	0.01	0.05
Lead, inorg., fumes & dusts (as Pb)	7439-92-1	3	15	—	—
Lead arsenate (as Pb)	10102-48-4	3	15	—	—
Liquified petroleum gas	—	36,000	180,000	20	100
Lithium hydride	7580-67-8	0.5	2.5	—	—
Lynoestrenol	52-76-6	—	—	—	—
Magenta	632-99-5	—	—	—	—
Magnesite	546-93-0	—	—	—	—
Magnesium oxide fume	1309-48-8	200	1,000	—	—
Malathion	121-75-5	200	1,000	—	—
Maleic anhydride	108-31-6	20	100	5.ppbv	25.ppbv
Malonitrile	109-77-3	150	800	0.06	0.3
Manganese dust & compounds (as Mn)	7489-96-5	—	—	—	—
Manganese cyclopentadienyl tricarbonyl (as Mn)	12079-65-1	2	10	—	—
Manganese fume (as Mn)	7439-96-5	20	100	—	—
Manganese tetroxide	1317-35-7	20	100	—	—
Medroxyprogesterone acetate	71-58-9	—	—	—	—
Megestrol acetate	595-33-5	—	—	—	—
6-Mercaptopurine	50-44-2	—	—	—	—
Mercury (alkyl compounds) (as Hg)	—	0.2	1	—	—
Mercury, (all forms except alkyl) (as Hg)	—	—	—	—	—
vapor	—	1	5	—	—
aryl and inorganic compounds	—	2	10	—	—
Mesityl oxide	141-79-7	800	4,000	0.2	1
Methacrylic acid	79-41-4	1,400	7,000	0.4	2
Methanethiol	74-93-1	20	100	0.01	0.05
Methanol	67-56-1	5,200	26,000	4	20
Methomyl	16752-77-5	50	250	—	—
Methotrexate	59-05-2	—	—	—	—
Methoxychlor	72-43-5	200	1,000	—	—
2-Methoxyethanol	109-86-4	320	1,600	0.1	0.5
2-Methoxyethyl acetate	110-49-6	480	2,400	0.1	0.5
4-Methoxyphenol	150-76-5	100	500	—	—

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TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Methyl acetate	79-20-9	12,200	61,000	4	20
Methyl acetylene	74-99-7	33,000	165,000	20	100
Methyl acetylene-propadiene mixture	—	36,000	180,000	20	100
Methyl acrylate	96-33-3	700	3,500	0.2	1
Methylacrylonitrile	126-98-7	60	300	0.02	0.1
Methylal	109-87-5	62,000	310,000	20	100
Methylamine	74-89-5	240	1,200	0.2	1
Methyl n-amyl ketone	110-43-0	4,700	23,500	1	5
n-Methyl aniline	100-61-8	40	200	0.01	0.05
Methyl bromide	74-83-9	1,200	6,000	0.3	1.5
Methyl butyl ketone	591-78-6	80	400	20.ppbv	0.14
Methyl cellosolve	109-86-4	320	1,600	0.1	0.5
Methyl cellosolve acetate	110-49-6	480	1,200	0.1	0.5
Methyl chloride	74-87-3	2,100	10,500	1	5
Methyl chloroform	71-55-6	38,000	190,000	7	35
Methyl 2-cyanoacrylate	137-05-3	160	800	0.04	0.2
Methylcyclohexane	108-87-2	32,000	160,000	8	40
Methylcyclohexanol	25639-42-3	4,700	23,500	1	5
o-Methylcyclohexanone	583-60-8	4,600	23,000	1	5
Methylcyclopentadienyl manganese tricarbonyl (as Mn)	12108-13-3	4	20	2.ppbv	10.ppbv
Methyl demeton	8022-00-2	10	50	—	—
Methylene bis (4-cyclo-hexyl-isocyanate)	5124-30-1	—	—	—	—
Methylene chloride	75-09-2	7,000	35,000	2	10
Methylene diphenyl isocyanate (MDI)	101-68-8	1	5	—	—
Methyl ethyl ketone (MEK)	78-93-3	11,800	59,000	4	20
Methyl ethyl ketone peroxide	1338-23-4	—	—	—	—
Methyl formate	107-31-3	5,000	25,000	2	10
Methyl isoamyl ketone	110-12-3	4,600	23,000	0.96	4.8
Methyl isobutyl carbinol	108-11-2	2,000	10,000	0.5	2.5
Methyl isobutyl ketone	108-10-1	4,000	20,000	1	5
Methyl isocyanate	624-83-9	1	5	0.4 ppbv	2.ppbv
Methyl isopropyl ketone	563-80-4	14,100	70,500	4	20
Methyl mercaptan	74-93-1	20	100	0.01	0.05
Methyl methacrylate	80-62-6	8,200	41,000	2	10
Methyl parathion	298-00-0	4	20	—	—
Methyl n-propyl ketone	107-87-9	10,600	53,000	2.8	14
Methyl silicate	681-84-5	120	600	0.02	0.1
Methyl styrene	98-83-9	4,800	24,000	1	5
Metribuzin	21087-64-9	100	500	—	—

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TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Mevinphos	7786-34-7	2	10	2.ppbv	10.ppbv
Mica*	—	—	—	—	—
Mineral wool fiber	—	200	1,000	—	—
Molybdenum (as Mo) soluble compounds	—	100	500	—	—
Molybdenum (insoluble compounds)	—	200	1,000	—	—
Monocrotophos	6923-22-4	5	20	—	—
Monomethyl aniline	100-61-8	40	200	0.01	0.05
Naled	300-76-5	60	300	—	—
Naphtha**	—	8,000	40,000	2	10
Naphthalene	91-20-3	1,000	5,000	0.2	1
Naphthalene diisocyanate	39394-45-1	0.8	4	—	—
1-Napthylamine	134-32-7	—	—	—	—
Nickel (II) oxide	1313-99-1	0.3	1.5	—	—
Nickel (III) oxide	1314-06-3	0.3	1.5	—	—
Nickel, other soluble compounds (as Ni)***	—	0.3	1.5	—	—
Nicotine	54-11-5	10	50	—	—
Nitrapyrin	1929-82-4	200	1,000	—	—
Nitric acid	7697-37-2	100	500	0.04	0.2
Nitric oxide	10102-43-9	600	3,000	0.5	2.5
p-Nitroaniline	100-01-6	60	300	0.01	0.05
Nitrobenzene	98-95-3	100	500	0.02	0.1
p-Nitrochlorobenzene	100-00-5	20	100	—	—
Nitroethane	79-24-3	6,200	31,000	2	10
Nitrogen trifluoride	7783-54-2	580	2,900	0.2	1
Nitroglycerin	55-63-0	10	50	1.ppbv	5.ppbv
Nitromethane	75-52-5	5,000	25,000	2	10
1-Nitropropane	108-03-2	1,800	9,000	0.5	2.5
Nitrotoluene	99-08-1	220	1,100	0.04	0.2
Nitrous oxide	10024-97-2	1,340	6,700	0.73	3.65
Nonane	111-84-2	21,000	105,000	4	20
Nonanethiol	1455-21-6	—	—	—	—
Norethynodrel	68-23-4	—	—	—	—
Norgestrel	6533-00-2	—	—	—	—
Octachloronaphthalene	2234-13-1	2	10	—	—

* The "HLV" for mica is 0.4 million particles per cubic foot (mppcf), eight-hour average and 2 mppcf, 30-minute average.

** See also VM&P Naphtha

*** Non-carcinogens

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Octadecanethiol	—	—	—	—	—
Octane	111-65-9	7,000	35,000	1.4	7
Octanethiol	111-88-6	—	—	—	—
Oil mist, mineral	8012-95-1	100	500	—	—
Osmium tetroxide (as Os)	20816-12-0	0.04	0.2	4.pptv	20.pptv
Oxalic acid	144-62-7	20	100	—	—
Oxygen difluoride	7783-41-7	2	10	1.ppbv	5.ppbv
Paraffin wax fume	8002-74-2	40	200	—	—
Paraquat, respirable sizes	1910-42-5	2	10	—	—
Parathion	56-38-2	2	10	—	—
Pentaborane	19624-22-7	0.2	1	0.1 ppbv	0.5 ppbv
Pentachloronaphthalene	1321-64-8	10	50	—	—
Pentachlorophenol	87-86-5	10	50	—	—
Pentaerythritol	115-77-5	300	1,500	—	—
Pentane	109-66-0	7,000	35,000	2.3	11.7
Pentanethiol	110-66-7	—	—	—	—
2-Pentanone	107-87-9	10,600	53,000	2.8	14
Perchloromethyl mercaptan	594-42-3	16	80	2.ppbv	10.ppbv
Perchloryl fluoride	7616-94-6	270	1,350	0.06	0.3
Perlite	—	0.6 mppcf*	3 mppcf*	—	—
Phenelzine	51-71-8	—	—	—	—
Phenobarbital	50-06-6	—	—	—	—
Phenol	108-95-2	380	1,900	0.1	0.5
Phenothiazine	92-84-2	100	500	—	—
Phenylbutazone	50-33-9	—	—	—	—
p-Phenylene diamine	106-50-3	2	10	—	—
Phenyl ether (vapor)	101-84-8	140	700	0.02	0.1
Phenyl ether-Diphenyl mixture (vapor)	—	140	700	0.02	0.1
Phenyl mercaptan	108-98-5	40	200	0.01	0.05
Phenyl-1-naphthylamine	90-30-2	—	—	—	—
Phenylphosphine	638-21-1	—	—	—	—
Phorate (Thimet)	298-02-2	1	5	—	—
Phosdrin (Mevinphos)	7786-34-7	2	10	2.ppbv	10.ppbv
Phosgene (carbonyl chloride)	75-44-5	8	40	2.ppbv	10.ppbv
Phosphine	7803-51-2	8	40	6.ppbv	30.ppbv

* mppcf: millions of particles per cubic foot

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
Phosphoric acid	7664-38-2	20	100	—	—
Phosphorus (yellow)	7723-14-0	2	10	—	—
Phosphorus oxychloride	10025-87-3	12	60	2.ppbv	10.ppbv
Phosphorus pentachloride	10026-13-8	20	100	2.ppbv	10.ppbv
Phosphorus pentasulfide	1314-80-3	20	100	—	—
Phosphorus trichloride	7719-12-2	30	150	4.ppbv	20.ppbv
Phthalic anhydride	85-44-9	120	600	0.02	0.1
m-Phthalodinitrile	626-17-5	100	500	—	—
Picloram	1918-02-1	200	1,000	—	—
Picric acid	88-89-1	2	10	—	—
Pindone	83-26-1	2	10	—	—
Piperazine dihydrochloride	142-64-3	100	500	—	—
Pival (2-Pivalyl-1,3-indandione)	83-26-1	2	10	—	—
Platinum (metal)	7440-06-4	20	100	—	—
Platinum (soluble salts) (as Pt)	—	0.04	0.2	—	—
Polytetrafluoroethylene decomposition products	—	—	—	—	—
Potassium hydroxide	1310-58-3	—	—	—	—
Prednisone	53-03-2	—	—	—	—
Propane	74-98-6	—	—	—	—
Propanethiol	75-33-2	36,000	180,000	—	—
Propargyl alcohol	107-19-7	40	200	0.02	0.1
Propionic acid	79-09-4	600	3,000	0.2	1
Propionitrile	107-12-0	280	1,400	0.12	0.6
Propoxur	114-26-1	10	50	—	—
n-Propyl acetate	109-60-4	16,800	84,000	4	20
Propyl alcohol	71-23-8	10,000	50,000	4	20
Propylene	115-07-1	—	—	—	—
Propylene dichloride	78-87-5	7,000	35,000	1.5	7.5
Propylene glycol dinitrate	6423-43-4	6	30	1.ppbv	5.ppbv
Propylene glycol monomethyl ether	107-98-2	7,200	36,000	2	10
Propylene oxide	75-56-9	1,000	5,000	0.4	2
n-Propyl nitrate	627-13-4	2,100	10,500	0.5	2.5
Pyrethrum	8003-34-7	100	500	—	—
Pyridine	110-86-1	300	1,500	0.1	0.5

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
Quinone	106-51-4	8	40	2.ppbv	10.ppbv
RDX	121-82-4	30	150	—	—
Resorcinol	108-46-3	900	4,500	0.2	1
Rhodium, Metal fume & dusts (as Rh)	7440-16-6	2	10	—	—
- insoluble compounds	—	20	100	—	—
- soluble salts (as Rh)	—	0.02	0.1 —	—	
Ronnel	299-84-3	200	1,000	—	—
Rosin core solder pyrolysis products (as formaldehyde)	—	2	10	—	—
Rotenone (commercial)	83-79-4	100	500	2.ppbv	10.ppbv
Rouge	1309-37-1	—	—	—	—
Selenium compounds (as Se)	—	4	20	—	—
Selenium hexafluoride	7783-79-1	4	20	1.ppbv	5.ppbv
Sesone	136-78-7	200	1,000	—	—
Silane	7803-62-5	140	700	0.1	0.5
Silica, amorphous	60676-86-0	—	—	—	—
Silicon carbide	409-21-2	—	—	—	—
Silver, metal	7440-22-4	0.2	1	—	—
Silver, soluble compounds	—	0.2	1	—	—
Soapstone*	—	—	—	—	—
Sodium azide	26628-22-8	—	—	—	—
Sodium bisulfite	7631-90-5	100	500	—	—
Sodium fluoroacetate (1080)	62-74-8	1	5	—	—
Sodium hydroxide	1310-73-2	40	200	—	—
Sodium metabisulfite	7681-57-4	100	—	—	—
Sprionolactone	52-01-7	—	—	—	—
Stibine	7803-52-3	10	50	2.ppbv	10.ppbv
Stoddard solvent	8052-41-3	7,000.**	35,000.**	1.22**	6.1**
Strychnine	57-24-9	3	15	—	—
Styrene, monomer	100-42-5	4,300	21,500	1	5
Styrene oxide	96-09-3	—	—	—	—
Subtilisins (proteolytic enzymes as 100% pure crystalline enzyme)	1395-21-7	—	—	—	—
Succinonitrile	110-61-2	400	2,000	0.12	0.6
Sulfafurazole	127-69-5	—	—	—	—

* The "HLV" for soapstone is 0.4 million particles per cubic foot (mppcf), eight-hour average and 2 mppcf, 30-minute average.

** Petroleum solvents generally, except kerosene

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3. Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Sulfamethoxazole	723-46-6	—	—	—	—
Sulfotep	3689-24-5	4	20	—	—
Sulfur hexafluoride	2551-62-4	120,000	600,000	20	100
Sulfuric acid	7664-93-9	20	100	—	—
Sulfur monochloride	10025-67-9	120	600	0.02	0.1
Sulfur pentafluoride	5714-22-7	5	25	0.5 ppbv	2.5 ppbv
Sulfur tetrafluoride	7783-60-0	8	40	2.ppbv	10.ppbv
Sulfuryl fluoride	2699-79-8	400	2,000	0.1	0.5
Sulprofos	35400-43-2	20	100	—	—
2,4,5-T	93-76-5	200	1,000	—	—
Tantalum	7440-25-7	100	500	—	—
TEDP (Sulfotep)	3689-24-5	4	20	—	—
Teflon decomposition products	—	—	—	—	—
Tellerium & compounds, as Te	13494-80-9	2	10	—	—
Tellerium hexafluoride, as Te	7783-80-4	4	20	0.4	2
Temephos	3383-96-8	200	1,000	—	—
TEPP	107-49-3	1	5	0.08 ppbv	0.4 ppbv
Terphenyls	92-94-4	—	—	—	—
2,3,7,8-Tetrachlorodibenzofuran	51207-31-0	—	—	—	—
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	83,400	417,000	10	50
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	83,400	417,000	10	50
Tetrachloronaphthalene	1335-88-2	40	200	—	—
Tetraethyl lead (as Pb)	78-00-2	1.5	7.5	—	—
Tetrahydrofuran	109-99-9	11,800	59,000	4	20
Tetramethyl lead (as Pb)	75-74-1	1.5	7.5	—	—
Tetramethyl succinonitrile	3333-52-6	60	120	0.01	0.05
Tetranitromethane	509-14-8	160	800	0.02	0.1
Tetrasodium pyrophosphate	7722-88-5	100	500	—	—
Tetryl (2,4,6-trinitrophenyl-methylnitramine)	479-45-8	30	150	—	—
Thallium, soluble compounds (as Tl)	—	2	10	—	—
4,4'-Thiobis (6-tert butyl-m-cresol)	96-69-5	200	1,000	—	—
Thioglycolic acid	68-11-1	100	500	0.02	0.1
Thiram	137-26-8	100	500	—	—
Tin, metal	7440-31-5	40	200	—	—

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	(ug/m3) 30-MINUTE	VOLUMETRIC UNITS 8-HOUR	VOLUMETRIC UNITS 30-MINUTE
Tin, inorganic compounds, except SnH4.	—	40	200	—	—
Tin, organic compounds (as Sn)	—	2	10	—	—
Tin, oxide (as Sn)	—	40	200	—	—
Titanium dioxide (as Ti)	13463-67-7	300	1,500	—	—
Toluene	108-88-3	7,500	37,500	2	10
Toluene-2,4-diisocyanate (TDI)	584-84-9	0.72	4	0.1 ppbv	0.5 ppbv
Tributyl phosphate	126-73-8	50	250	4.ppbv	20.ppbv
Trichloroacetic acid	76-03-9	100	500	0.02	0.1
1,2,4-Trichlorobenzene	120-82-1	800	4,000	0.1	0.5
1,1,1-Trichloroethane	71-55-6	38,000	190,000	7	35
Trichlorofluoromethane	75-69-4	—	—	—	—
Trichloronaphthalene	1321-65-9	100	500	—	—
2,4,5-Trichlorophenol	95-95-4	—	—	—	—
1,2,3-Trichloropropane	96-18-4	6,000	30,000	1	5
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	152,000	760,000	20	100
Tricyclohexyltin hydroxide (Cyhexatin)	13121-70-5	100	500	—	—
Triethylamine	121-44-8	800	4,000	0.2	1
Trifluoromonobromomethane	75-63-8	122,000	610,000	20	100
Trimellitic anhydride	552-30-7	0.8	4	0.1 ppbv	0.5 ppbv
Trimethylamine	75-50-3	480	2,400	0.2	1
Trimethyl benzene	25551-13-7	2,500	12,500	0.5	2.5
Trimethyl phosphite	121-45-9	200	1,000	0.04	0.2
2,4-6-Trinitrotoluene (TNT)	118-96-7	10	50	—	—
Triorthocresyl phosphate	73-30-8	2	10	—	—
Triphenyl amine	603-34-9	100	500	—	—
Triphenyl phosphate	115-86-6	60	300	—	—
Tungsten & compounds, as W - soluble	—	20	100	—	—
- insoluble	—	100	500	—	—
Turpentine	8006-64-2	11,200	56,000	2	10
Undecanethiol	—	—	—	—	—
Uranium (natural) compounds (as U)					
soluble	—	1	5	—	—
insoluble	—	4	20	—	—
Valeraldehyde	110-62-3	3,500	17,500	1	5
Vanadium, as Pentoxide, - Dust	1314-62-1	1	5	—	—
- (Fume)	1314-62-1	1	5	—	—

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

TABLE 29-3, Continued

"HAZARDOUS AIR POLLUTANT"	"CAS NUMBER"	"HAZARD LIMITING VALUE" ("HLV") (ug/m3) 8-HOUR	30-MINUTE	VOLUMETRIC UNITS 8-HOUR	30-MINUTE
Vinblastine	865-21-4	—	—	—	—
Vincristine	57-22-7	—	—	—	—
Vinyl acetate	108-05-4	600	3,000	0.2	1
Vinylidene chloride	75-35-4	400	2,000	0.1	0.5
Vinyl toluene	25013-15-4	9,600	48,000	2	10
VM & P Naphtha	8030-30-6	27,000	135,000	6	30
Warfarin	81-81-2	2	10	—	—
Welding fumes (not otherwise classified)	—	100	500	—	—
o-Xylene	1330-20-7	8,680	43,400	2	10
m-Xylene	1330-20-7	8,680	43,400	2	10
p-Xylene	1330-20-7	8,680	43,400	2	10
m-Xylene , '-diamine	1477-55-0	—	—	—	—
Yttrium	7440-65-5	20	100	—	—
Zinc chloride fume	7646-85-7	20	100	—	—
Zinc oxide fume	1314-13-2	100	500	—	—
Zinc stearate	557-05-1	—	—	—	—
Zirconium compounds (as Zr)	—	100	500	—	—

Note: Dashed lines indicate that no "hazard limiting value" has been established for the "hazardous air pollutant" listed. The "HLV" and/or "AAQS" will be determined at a later date.

(Effective October 21, 1988; Amended April 4, 2006; Amended April 6, 2016; Amended March 14, 2024)

Sec. 22a-174-30. Dispensing of gasoline/stage I and stage II vapor recovery (Repealed)

Repealed July 8, 2015.

(Effective November 24, 1992; Amended May 10, 2004; Repealed July 8, 2015)

Sec. 22a-174-30a. Stage I Vapor Recovery.

(a) **Definitions.** For the purposes of this section, the definitions provided in this subsection shall apply. Terms used in this section that are not defined in this subsection are as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(1) "CARB" means the State of California Air Resources Board;

(2) "CARB-approved" means a Stage I vapor recovery system or system component that is or has been tested and approved by CARB as an individual component or as part of an approved system or that is or has been tested and approved by another state using testing methods approved by CARB;

(3) "Construct" means to install or replace all storage tanks with a capacity greater than 250 gallons, the product piping and the vent piping at a GDF during a single project;

(4) "Delivery elbow" means a quick connect/disconnect type coupler that joins a hose

from a delivery vehicle to a GDF's storage tank riser pipe adaptor or coupler;

(5) "Delivery vehicle" means a tank truck, tank-equipped trailer, railroad tank car, or other mobile source equipped with a storage tank used for the transportation of gasoline from a source of supply to any stationary storage tank;

(6) "Gasoline" means any petroleum distillate or petroleum distillate and alcohol blend commercially known or sold as "gasoline" and commonly used as an internal combustion engine fuel;

(7) "Gasoline dispensing facility" or "GDF" means any site where gasoline is transferred to motor vehicles from a stationary storage tank with a capacity of 250 gallons or more;

(8) "Modified" means the addition, alteration, replacement or retrofit of a gasoline storage tank located at a GDF or any component fixed to such gasoline storage tank including, but not limited to, piping that contains gasoline or gasoline vapors and containments located over or on the gasoline storage tank;

(9) "Stage I vapor recovery system" means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading delivery vehicle and a receiving GDF storage tank such that vapors displaced from the GDF storage tank are transferred to the delivery vehicle tank;

(10) "Throughput" means the number of gallons of gasoline delivered into motor vehicles at a GDF over a specified period of time;

(11) "Two-point Stage I vapor recovery system" means a GDF storage tank possessing an entry port for a gasoline fill pipe and a separate exit port for a vapor-return connection; and

(12) "Vapor-tight" means not capable of allowing the passage of gases at the pressures encountered.

(b) **Applicability.**

(1) This section applies to the owner or operator of any GDF that has a monthly throughput of 10,000 gallons or more on or after July 1, 2015. If a GDF ever exceeds a monthly throughput of 10,000 gallons, the requirements of this section shall thereafter apply.

(2) Monthly throughput shall be calculated by adding the volume of gasoline dispensed at the GDF during the current day with the volume of gasoline dispensed at the GDF during the previous 364 days, and dividing that sum by 12. For any GDF constructed after July 1, 2014, the initial calculation of monthly throughput shall be performed on or after 365 days after the date the GDF starts dispensing gasoline to motor vehicles.

(3) For a GDF with multiple storage tanks, the requirements of this section apply only to a storage tank with a capacity of 250 gallons or greater.

(4) The owner or operator of a GDF that does not meet the monthly throughput requirements of subdivision (1) of this subsection shall maintain a chronological register of daily throughput of gasoline to demonstrate that this section does not apply. Such records shall be maintained for five (5) years from the date of creation and be made available to the Commissioner or the Administrator upon request. An owner or operator shall make records available to the Commissioner or the Administrator no later than three (3) business days

after receiving such a request.

(c) **Requirements.**

(1) No owner or operator of a GDF shall transfer or allow the transfer of gasoline between a delivery vehicle and a GDF stationary storage tank unless such stationary storage tank is equipped with a Stage I vapor recovery system that includes:

(A) A CARB-approved fill adapter; and

(B) A pressure/vacuum vent valve on each GDF storage tank vent pipe.

(2) Any pressure/vacuum vent valve installed on and after July 1, 2015 shall be a CARB-approved pressure/vacuum vent valve.

(3) The pressure specifications for any pressure/vacuum vent valve shall be as follows:

(A) For any pressure/vacuum vent valve installed prior to July 1, 2015:

(i) A positive pressure setting of:

(I) 3.0 inches of water, plus or minus 0.5 inch, or

(II) 2.5 to 6.0 inches of water, and

(ii) A vacuum setting of 8.0 inches of water, plus or minus 2.0 inches; and

(B) For any pressure/vacuum vent valve installed on and after July 1, 2015:

(i) A positive pressure setting of 2.5 to 6.0 inches of water,

(ii) A negative pressure setting of 6.0 to 10.0 inches of water, and

(iii) The total leak rate of all pressure/vacuum vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.

(4) Except as provided in subdivision (5) of this subsection, a GDF storage tank shall be equipped with a two-point Stage I vapor recovery system. The vapor exit port of the two-point Stage I vapor recovery system shall be designed and maintained to seal in a manner that will prevent the discharge of gasoline vapors to the atmosphere when the vapor return hose is disconnected.

(5) An owner or operator of any GDF storage tank that does not have an available port to install a two-point Stage I vapor recovery system shall install a two-point Stage I vapor recovery system when the GDF storage tank is replaced or when the product in the tank is switched from any other fuel to gasoline.

(6) In addition to the requirements of subdivisions (1) to (5), inclusive, of this subsection, an owner or operator of any GDF that has a monthly throughput of 100,000 gallons or more shall install, operate and maintain a Stage I vapor recovery system that meets the requirements of subparagraphs (A) to (F), inclusive, of this subdivision. If a GDF ever exceeds a monthly throughput of 100,000 gallons, the requirements of this subdivision shall thereafter apply.

(A) All vapor line connections on the GDF storage tank shall be equipped with closures that seal upon disconnect;

(B) The Stage I vapor control system shall be designed such that the pressure in the delivery vehicle tank does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer;

(C) The vapor recovery and product adaptors and the method of connection with the delivery elbow shall be designed to prevent the over-tightening or loosening of fittings during normal delivery operations;

(D) If a gauge well is separate from the fill tube, the gauge well shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as the fill pipe;

(E) Liquid fill connections and vapor couplings shall be equipped with vapor-tight caps; and

(F) The Stage I vapor recovery system shall be capable of meeting the static pressure performance requirement of the following equation when pressure decay testing is performed as required by subsection (d) of this section:

$Pf = 2e^{-500.887/v}$

Where:

Pf = Minimum allowable final pressure, inches of water

v = Total ullage affected by the test, gallons

e = Dimensionless constant equal to approximately 2.718.

(d) **Testing**.

(1) The owner or operator of any GDF shall conduct each of the following tests at least once per calendar year:

(A) For every pressure/vacuum vent valve, a pressure/vacuum vent valve test as specified in subdivision (4) of this subsection;

(B) A pressure decay test as specified in subdivision (5) of this subsection; and

(C) A vapor-space tie-in test as specified in subdivision (7) of this subsection.

(2) The owner or operator of any GDF constructed on and after July 1, 2015 shall conduct the tests identified in subdivision (1) of this subsection within sixty (60) days of initial operation.

(3) The owner or operator of any GDF modified on and after July 1, 2015 shall conduct the tests identified in subdivision (1) of this subsection within sixty (60) days of completion of the modification.

(4) Pressure/vacuum vent valve tests shall be conducted according to the current version of CARB TP-201.1E, *Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves*, as may be revised from time to time, or another test method approved by the Commissioner and the Administrator.

(5) Pressure decay tests shall be conducted according to the current version of CARB TP-201.3, *Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities*, as may be revised from time to time, or another test method approved by the Commissioner and the Administrator.

(6) The owner or operator of any GDF subject to 40 CFR 63.11120 may use the test methods specified in 40 CFR 63.11120 in lieu of the method specified in subdivision (4) or subdivision (5) of this subsection.

(7) Vapor-space tie-in tests shall be conducted according to the current version of CARB

TP-201.3C, *Determination of Vapor Piping Connections to Underground Gasoline Storage Tanks (Tie-Tank Test)*, as may be revised from time to time, or another method test approved by the Commissioner and the Administrator.

(8) The owner or operator of any GDF who has installed a pressure management or vapor control device on a storage tank with a capacity of 250 gallons or greater, other than a device that is required to be installed and tested by this section, shall test such device annually by a method approved by the commissioner. At least sixty (60) days prior to conducting an annual test, the owner or operator shall submit a test protocol for review and approval on a form provided by the commissioner.

(9) Any owner or operator of any GDF shall:

(A) Notify the Department's Bureau of Air Management, Field Operations Section in writing of the time and location of a test required by this subsection at least seven (7) business days in advance; and

(B) Submit a copy of the test report on a form provided by the Department to the Department's Bureau of Air Management, Field Operations Section within ten (10) days after performing a test required by this subsection.

(10) If an owner or operator of any GDF fails any test required by this subsection, the owner or operator shall take corrective actions and retest no later than sixty (60) days after failing the test.

(e) **Record keeping**.

(1) Any owner or operator of a GDF shall maintain the following records:

(A) All licenses, as defined in section 4-166 of the Connecticut General Statutes, to construct or operate the GDF or to construct or operate a specific system at the GDF;

(B) All records and results of tests performed pursuant to subsection (d) of this section, including the date of the testing and the names, addresses, and phone numbers of the persons who performed the tests;

(C) A record of any maintenance or repair conducted on any part of the Stage I vapor recovery system, including a description of the maintenance or repair performed, identification of any part repaired or replaced on such Stage I vapor recovery system, the dates the maintenance or repair was performed, and a general description of the location of any part repaired or replaced;

(D) A chronological file of all inspection reports issued by a representative of the Commissioner or the Administrator for inspections performed at the GDF;

(E) A chronological file of all compliance records, including orders, warnings and notices of violations, issued by a representative of the Commissioner or the Administrator; and

(F) A chronological register of daily throughput.

(2) In addition to the applicable records required by subdivision (1) of this subsection, any owner or operator of a GDF constructed after July 1, 2014 shall maintain records of the dates of the construction and the date gasoline was first dispensed to a motor vehicle.

(3) Records required by this subsection shall be made available to the Commissioner or the Administrator upon request. An owner or operator shall make records available to the

Commissioner or the Administrator no later than three (3) business days after receiving such a request.

(4) Records shall be maintained for five (5) years from the date of creation.

(5) An owner or operator shall display in a conspicuous location at the GDF the address at which the records required by subdivision (1) of this subsection are maintained.

(Effective July 8, 2015)

Sec. 22a-174-31. Control of carbon dioxides emissions

(a) **Definitions and Abbreviations.** Except as otherwise provided, for the purposes of this section and section 22a-174-31a of the Regulations of Connecticut State Agencies:

(1) "Account number" means the identification number given by the commissioner to each CO_2 Allowance Tracking System account.

(2) "Acid rain emissions limitation" means "Acid Rain emissions limitation", as defined in 40 CFR 72.2, regarding emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program.

(3) "Acid Rain Program" means a multi-state sulfur dioxide and nitrogen oxides air pollution control and emissions reduction program established by the Administrator under Title IV of the federal Clean Air Act and 40 CFR 72 to 78, inclusive.

(4) "Administrator" means "Administrator" as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(5) "Allocate" or "allocation" means the determination by the commissioner of the number of CO_2 allowances to be recorded in the compliance account of a CO_2 budget source, the Connecticut Auction Account, an allocation set-aside account, the general account of the sponsor of an approved CO_2 emissions offset project or an account established by any other person.

(6) "Allocation year" means a calendar year for which the commissioner allocates CO_2 allowances pursuant to subsection (f) of this section. The allocation year of each CO_2 allowance is reflected in the unique identification number given to the allowance pursuant to subsection (g)(4)(E) of this section.

(7) "Allowance auction" or "auction" means:

(A) The open and transparent process by which the commissioner, or a contractor or trustee selected by the commissioner, offers for sale the CO_2 allowances in the Connecticut Auction Account not less than once per year; or

(B) To offer CO_2 allowances in the Connecticut Auction Account for sale in an open transparent process conducted by the commissioner or a contractor or trustee selected by the commissioner.

(8) "Attribute" means a characteristic associated with electricity generated using a particular renewable fuel, such as its generation date, facility geographic location, source vintage, emissions output, fuel, state program eligibility, or other characteristic that can be identified, accounted for, and tracked.

(9) "Automated data acquisition and handling system" or "DAHS" means that

component of the continuous emissions monitoring system, or other emissions monitoring system approved for use under subsection (i) of this section, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required by subsection (i) of this section.

(10) "Award" means an allocation through which the commissioner determines the number of CO_2 offset allowances to be recorded in the general account of a project sponsor pursuant to section 22a-174-31a of the Regulations of Connecticut State Agencies.

(11) "Billing meter" means the measurement device used to measure electric or thermal output for commercial billing under a contract where the facility selling the electric or thermal output has different owners from the owners of the party purchasing the electric or thermal output.

(12) "Boiler" means a fossil or other fuel-fired device that produces steam or heats water or any other heat transfer medium.

(13) "Btu" means British Thermal Unit, a standard measurement used to quantify an amount of energy.

(14) "Class I renewable energy source" means "Class I renewable energy source" as defined in section 16-1(a) of the Connecticut General Statutes.

(15) "Clean Energy Fund" or "CEF" means the fund created by section 16-245n of the Connecticut General Statutes to address Connecticut's increasing energy needs and any individual authorized to act on behalf of such fund.

(16) "CO_2" means carbon dioxide.

(17) "CO_2 allowance" means a limited authorization by the commissioner or a participating state under the CO_2 Budget Trading Program to emit up to one ton of CO_2, subject to all the applicable conditions contained in this section.

(18) "CO_2 allowance deduction" or "deduct CO_2 allowances" means the permanent withdrawal of CO_2 allowances by the commissioner from a CO_2 Allowance Tracking System compliance account.

(19) "CO_2 allowances held" or "hold CO_2 allowances" means the CO_2 allowances recorded by the commissioner, or submitted to the commissioner, in accordance with subsections (g) and (h) of this section, in a CO_2 Allowance Tracking System account.

(20) "CO_2 Allowance Tracking System" or "COATS" means the system by which the commissioner records allocations, deductions, and transfers of CO_2 allowances under the CO_2 Budget Trading Program under this section, the system used to track CO_2 offset allowance projects under section 22a-174-31a of the Regulations of Connecticut State Agencies, and the system used to track emissions from affected sources.

(21) "CO_2 Allowance Tracking System account" means an account in the CO_2 Allowance Tracking System established by the commissioner for purposes of recording the allocating, holding, transferring, or deducting of CO_2 allowances.

(22) "CO_2 allowance transfer deadline" means midnight of March 1 occurring after the

end of the relevant control period and each relevant interim control period or, if that March 1 is not a business day, midnight of the first business day thereafter.

(23) "CO_2 authorized account representative" means the individual who is authorized by the owners or operators of the source and all CO_2 budget sources at the source, in accordance with subsection (c) of this section, to represent and legally bind each owner or operator in matters pertaining to the CO_2 Budget Trading Program or, for a general account, the individual who is authorized, in accordance with subsection (g) of this section, to transfer or otherwise dispose of CO_2 allowances held in the general account.

(24) "CO_2 budget emissions limitation" means the tonnage equivalent, in CO_2 emissions in a control period or an interim control period, of the CO_2 allowances available for compliance deduction for the CO_2 budget source for a control period or an interim control period.

(25) "CO_2 budget source" means a facility that includes one or more CO_2 budget units.

(26) "CO_2 Budget Trading Program" means the multi-state CO_2 air pollution control and emissions reduction program established pursuant to this section and corresponding regulations in other states as a means of reducing emissions of CO_2 from CO_2 budget sources.

(27) "CO_2 budget unit" means an emissions unit that is subject to the CO_2 Budget Trading Program requirements under subsection (b) of this section.

(28) "CO_2 cost containment reserve allowance" or "CO_2 CCR allowance" means a CO_2 allowance that is offered for sale at auction in accordance with subsection (f)(5)(D) of this section.

(29) "CO_2 equivalent" means a metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP).

(30) "CO_2 offset allowance" means a CO_2 allowance that is awarded to the sponsor of a CO_2 emissions offset project pursuant to section 22a-174-31a of the Regulations of Connecticut State Agencies and is subject to the relevant compliance deduction limitations of this section.

(31) "Combined cycle system" means a system comprised of one or more combustion turbines, heat recovery steam generators, and steam turbines configured to improve overall efficiency of electricity generation or steam production.

(32) "Combined Heat and Power" or "CHP" means "Combined heat and power system" as defined in section 22a-174-22c of the Regulations of Connecticut State Agencies.

(33) "Combined Heat and Power Useful Thermal Energy Set-aside Account" means a general account established by the commissioner to hold CO_2 allowances that are allocated pursuant to subsection (f)(4) of this section.

(34) "Combustion turbine" means an enclosed fossil or other fuel-fired device that is comprised of a compressor, if applicable, a combustor, and a turbine, and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine.

(35) "Commissioner" means "commissioner" as defined in section 22a-174-1 of the

Regulations of Connecticut State Agencies.

(36) "Compliance account" means a CO_2 Allowance Tracking System account, established by the commissioner for a CO_2 budget source under subsection (g) of this section, in which the CO_2 allowance allocations for the source are initially recorded and in which are held CO_2 allowances available for use by the source for a control period and each interim control period for the purpose of meeting the requirements of subsection (b)(3) of this section.

(37) "Connecticut Auction Account" means a general account established by the commissioner to hold CO_2 allowances that are allocated pursuant to subsection (f) of this section.

(38) "Connecticut CO_2 Allowance Retirement Account" means a general account established by the commissioner to hold CO_2 allowances that have been permanently retired.

(39) "Connecticut CO_2 Budget Trading Program Adjusted Budget" means the adjusted budget of CO_2 tons available in Connecticut for allocation for each allocation year as determined in accordance with subsection (f) of this section. CO_2 offset allowances allocated to project sponsors and CO_2 CCR allowances offered for sale at an auction are separate from and additional to CO_2 allowances allocated for the budget trading Connecticut CO_2 Budget Trading Program Adjusted Budget.

(40) "Connecticut CO_2 Budget Trading Program Base Budget" means the annual amount of CO_2 tons available in Connecticut for allocation in a given allocation year, in accordance with the CO_2 Budget Trading Program. CO_2 CCR allowances and CO_2 offset allowances allocated to project sponsors are separate from and additional to CO_2 allowances allocated from the Connecticut CO_2 Budget Trading Program Base Budget.

(41) "Connecticut Green Bank" means the authority created by section 16-245n of the Connecticut General Statutes to administer the Clean Energy Fund.

(42) "Connecticut Emissions Containment Reserve Account" or "Connecticut ECR Account" means a CO_2 Allowance Tracking System account established by the commissioner to hold CO_2 allowances that were offered for sale and transferred in accordance with subsection (f)(5)(I) to (K) of this section.

(43) "Continuous emissions monitoring system" or "CEMS" means the equipment required under subsection (i) of this section to sample, analyze, measure, and provide, by means of readings recorded at least once every fifteen (15) minutes, using an automated data acquisition and handling system, a permanent record of stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration as applicable, in a manner consistent with 40 CFR 75 and subsection (i) of this section.

(44) "Control period" means a three-calendar-year time period. The first control period is from January 1, 2009 to December 31, 2011, inclusive. Each subsequent sequential three-calendar-year period is a separate control period. The first two calendar years of each control period are each defined as an interim control period, beginning in January 1, 2015.

(45) "Cost containment reserve trigger price" or "CCR trigger price" means the minimum price at which CO_2 CCR allowances are offered for sale at auction.

(46) "Customer-side distributed resources" or "CDR" means "customer-side distributed resources" as defined in Section 16-1(a) of the Connecticut General Statutes.

(47) "Customer-side Distributed Resources (CDR) Set-aside Account" means a general account established by the commissioner to hold CO_2 allowances that are allocated pursuant to subsection (f)(4) of this section.

(48) "Eligible biomass" means sustainably harvested, as determined by the commissioner, woody and herbaceous fuel sources that are available on a renewable or recurring basis, excluding old-growth timber, but including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, unadulterated wood and wood residues, animal wastes, other clean organic wastes not mixed with other solid wastes and biogas. Eligible biomass does not include liquid biofuels.

(49) "Emission containment reserve trigger price" or "ECR trigger price" means the price below which CO_2 allowances offered for sale at an auction shall be transferred into the Connecticut ECR Account.

(50) "Energy Efficiency Board" or "EEB" means the group convened by the commissioner pursuant to section 16-245m of the Connecticut General Statutes for the purpose of advising and assisting electric distribution companies in the development and implementation of cost-effective energy conservation programs and market transformation initiatives.

(51) "Excess emissions" means any tonnage of CO_2 emitted by a CO_2 budget source during a control period that exceeds the CO_2 budget emissions limitation for such source.

(52) "Excess interim emissions" means any tonnage of CO_2 emitted by a CO_2 budget source during an interim control period, multiplied by 0.50, that exceeds the CO_2 budget emissions limitation for such source.

(53) "First control period interim adjustment for banked allowances" means an adjustment applied to the Connecticut CO_2 Budget Trading Program Base Budget pursuant to subsection (f) of this section for Connecticut's proportional share of the regional surplus CO_2 allowances from allocation years 2009 to 2011, inclusive.

(54) "Fossil fuel" means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material, except that fossil fuel does not include tire-derived fuel.

(55) "Fossil fuel-fired" means, with regard to an emissions unit that commenced operation prior to January 1, 2005, the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than fifty percent of the annual heat input on a Btu basis during any year, or, with respect to an emissions unit that commences operation on or after January 1, 2005, the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than five percent of the annual heat input on a Btu basis during any year.

(56) "General account" means a CO_2 Allowance Tracking System account, established under subsection (g) of this section, which is not a compliance account.

(57) "Global warming potential" or "GWP" means a measure consistent with the values used in the Intergovernmental Panel on Climate Change (IPCC), Fifth Assessment Report of the radiative efficiency or heat-absorbing ability, of a particular gas relative to that of CO_2 after taking into account the decay rate of each gas, the amount removed from the atmosphere over a given number of years, relative to that of CO_2.

(58) "Interim control period" means a one-calendar-year time period, during each of the first and second calendar years of each three-year control period. The first interim control period is from January 1, 2015 to December 31, 2015, inclusive. The second interim control period is from January 1, 2016 to December 31, 2016, inclusive. Each successive three-year control period will have two interim control periods, comprised of each of the first two calendar years of that control period.

(59) "H_2O" means water.

(60) "Heat input" means the gross calorific value of all fuels combusted by a CO_2 budget unit.

(61) "Lb" means pound.

(62) "Maximum potential hourly heat input" means an hourly heat input used for reporting purposes when a unit lacks certified monitors to report heat input calculated in accordance with 40 CFR 75.

(63) "Monitoring system" means any monitoring system that meets the requirements of subsection (i) of this section, including a continuous emissions monitoring system, an excepted monitoring system, or an alternative monitoring system.

(64) "MMBtu" means million Btu of heat input.

(65) "MWe" means megawatt electrical.

(66) "MWh" means megawatt-hour.

(67) "Nameplate capacity" means the maximum electrical output in MWe that an electric generating unit can sustain over a specified period of time when not restricted by seasonal or other deratings as measured in accordance with the United States Department of Energy Standards.

(68) "Non-CO_2 budget unit" means a unit that does not meet the applicability criteria of subsection (b) of this section.

(69) "NOx" means oxides of nitrogen.

(70) "O_2" mean oxygen.

(71) "Operator" means any person who operates, controls, or supervises a CO_2 budget unit or a CO_2 budget source and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

(72) "Owner" means any of the following persons:

(A) Any holder of any portion of the legal or equitable title in a CO_2 budget unit;

(B) Any holder of a leasehold interest in a CO_2 budget unit, other than a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the CO_2 budget unit;

(C) Any purchaser of power from a CO_2 budget unit under an agreement in which the purchaser controls the dispatch of the unit; or

(D) With respect to any general account, any person who has an ownership interest in the CO_2 allowances held in the general account and who is subject to the binding agreement for the CO_2 authorized account representative to represent that person's ownership interest with respect to the CO_2 allowances.

(73) "Participating state" means a state that has established a regulation implementing a CO_2 Budget Trading Program consistent with the Regional Greenhouse Gas Initiative model rule.

(74) "Public Utilities Regulatory Authority" means the authority pursuant to section 16-2 of the Connecticut General Statutes.

(75) "Receive" or "receipt of" means, when referring to the commissioner, to come into possession of a document, information, or correspondence, as indicated in an official correspondence log, or by a notation made on the document, information, or correspondence, by the commissioner in the regular course of business.

(76) "Recordation", "record" or "recorded" means, with regard to CO_2 allowances, the movement of CO_2 allowances by the commissioner from one CO_2 Allowance Tracking System account to another, for purposes of allocation, transfer or deduction.

(77) "Regional Independent System Operator" or "Regional ISO" means "regional independent system operator" as defined in section 16-1 of the Connecticut General Statutes.

(78) "Renewable energy" means "Class I renewable energy source" as defined in section 16-1(a) of the Connecticut General Statutes.

(79) "Renewable Energy Certificate" or "REC" means a certificate that represents the attributes related to one megawatt-hour of electricity generation.

(80) "Second control period interim adjustment for banked allowances" means an adjustment applied to the Connecticut CO_2 Budget Trading Program Base Budget pursuant to subsection (f) of this section for Connecticut's proportional share of regional surplus CO_2 allowances from allocation years 2012 and 2013.

(81) "Serial number" means, when referring to CO_2 allowances, the unique identification number assigned to each CO_2 allowance by the commissioner.

(82) "SO_2" means sulfur dioxide.

(83) "Source" means "source" as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies, provided that a source with multiple units, is a single facility.

(84) "State" means, notwithstanding the definition set forth in section 22a-174-1 of the Regulations of Connecticut State Agencies, any state of the United States of America, the District of Columbia, and the following territories of the United States: the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.

(85) "Submit" means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation either in person, by United States Postal Service, or by other means of dispatch or transmission and delivery.

(86) "Third adjustment for banked allowances" means an adjustment applied to the Connecticut CO_2 Budget Trading Program Base Budget pursuant to subsection (f) of this section for Connecticut's proportional share of regional surplus CO_2 allowances from allocation years prior to 2021.

(87) "Ton" or "short ton" means a measure of weight equal to two thousand pounds or 0.9072 metric tons.

(88) "Undistributed CO_2 allowances" means CO_2 allowances originally allocated to a set- aside account pursuant to subsection (f) of this section that were not utilized for the purpose of such set aside account.

(89) "Unit" means a fossil fuel-fired stationary boiler, combustion turbine or combined cycle system.

(90) "Unsold CO_2 allowances" means CO_2 allowances that have been made available for sale in an auction but not sold.

(91) "Useful net thermal energy" means the energy output of thermal energy used for heating, cooling, industrial processes or other beneficial uses.

(92) "Voluntary clean energy purchase" means electricity from renewable energy generation or renewable energy attribute credits representing such renewable energy generation, purchased by a retail electricity customer on a voluntary basis, provided that purchases used to meet any regulatory mandate, such as a renewable portfolio standard, shall not be a voluntary renewable energy purchase.

(93) "Voluntary Clean Energy Purchase Set-aside Account" means a general account established by the commissioner to hold CO_2 allowances that are allocated pursuant to subsection (f)(4) of this section.

(b) **Applicability and General Provisions.**

(1) Applicability. Any CO_2 budget unit that, at any time on or after January 1, 2000, serves an electricity generator with a nameplate capacity equal to or greater than 25 MWe shall be a CO_2 budget source, and any owner or operator of such source that includes one or more such units shall be the owner or operator of a CO_2 budget source subject to the requirements of this section.

(2) Monitoring. In order to determine compliance with the CO_2 requirements of subdivision (3) of this subsection, the owner or operator of a CO_2 budget source subject to this section shall comply with the applicable monitoring requirements set forth in subsection (i) of this section. The commissioner shall determine compliance with subdivision (3) of this subsection using the emissions measurements recorded and reported in accordance with subsection (i) of this section.

(3) General Provisions and CO_2 Requirements.

(A) The owners and operators of each CO_2 budget source shall hold CO_2 allowances available for compliance deductions under subsection (g)(5) of this section, not later than the CO_2 allowance transfer deadline, in the source's compliance account in an amount equal to or greater than the total CO_2 emissions for each control period and each interim control period from all CO_2 budget units at the source, as determined in accordance with subsections

(g) and (i) of this section. In addition:

(i) A CO_2 allowance shall not be deducted to cover emissions for a control period or interim control period that ends prior to the year for which the CO_2 allowance was allocated; and

(ii) A CO_2 offset allowance shall not be deducted to cover emissions beyond the applicable percent limitations set forth in subsection (g)(5)(B) of this section;

(B) A CO_2 budget source shall be subject to the requirements under subsection (c)(1) of this section starting on January 1, 2009, or the date on which the source commences operation, whichever is later;

(C) CO_2 allowances shall be held in, deducted from, or transferred among CO_2 Allowance Tracking System accounts in accordance with subsections (f), (g) and (h) of this section and section 22a-174-31a(j) of the Regulations of Connecticut State Agencies;

(D) A CO_2 allowance under the CO_2 Budget Trading Program is a limited authorization by the commissioner or a participating state to emit one ton of CO_2 in accordance with the CO_2 Budget Trading Program;

(E) A CO_2 allowance under the CO_2 Budget Trading Program does not constitute a property right;

(F) For the purpose of determining compliance with subparagraph (A) of this subdivision, total CO_2 emissions, in tons, for each applicable interim control period or control period shall be calculated as the sum of all recorded hourly emissions, or the tonnage equivalent of the recorded hourly emissions rates, in accordance with subsection (i) of this section, with any remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal one ton and any fraction of a ton less than 0.50 ton deemed to equal zero tons;

(G) Each ton of CO_2 emitted in excess of the CO_2 budget emissions limitation shall constitute a separate violation of this section; and

(H) Each ton of excess interim emissions shall constitute a separate violation of this section.

(4) Excess emissions. The owner and operator of a CO_2 budget source that has excess emissions in any control period or excess interim emissions in any interim control period shall after such control period or interim control period, as applicable, on a time frame established by the commissioner:

(A) Forfeit the CO_2 allowances required for deduction under subsection (g)(5)(G) of this section;

(B) Not be authorized to cover any part of such excess emissions with CO_2 offset allowances under section 22a-174-31a of the Regulations of Connecticut State Agencies; and

(C) Comply with the assessment of any fine, penalty or other obligation under subsection (g)(5)(G) of this section, provided that such assessment shall not limit additional enforcement action by the commissioner.

(5) Recordkeeping and reporting. The owner and operator of a CO_2 budget source shall comply with the following recordkeeping and reporting requirements:

(A) Unless otherwise provided or extended by the commissioner prior to the end of the applicable ten year period, the owner or operator of a CO_2 budget source and each CO_2 budget unit at the source shall make and keep at the source each of the following documents for a period of ten years from the date the document is created:

(i) Notwithstanding the provisions of subparagraph (A) of this subdivision, the account certificate of representation for the CO_2 authorized account representative for the source and each CO_2 budget unit at the source and all documents that demonstrate the truthfulness and accuracy of the statements made in the account certificate of representation, in accordance with subsection (c)(4) of this section, shall be retained on site at the source indefinitely until such documents are superseded by the submission of a new account certificate of representation changing the CO_2 authorized account representative;

(ii) All emissions monitoring information in accordance with subsection (i) of this section;

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CO_2 Budget Trading Program; and

(iv) Copies of all documents used to complete any submission under the CO_2 Budget Trading Program or to demonstrate compliance with the requirements of the CO_2 Budget Trading Program.

(B) The CO_2 authorized account representative of a CO_2 budget source shall submit the reports and compliance certifications required under the CO_2 Budget Trading Program, including those required under subsection (e) of this section.

(6) Liability. The owner and operator of a CO_2 budget source shall be subject to the following:

(A) Any provision of the CO_2 Budget Trading Program that applies to a CO_2 budget source, or the CO_2 authorized account representative of a CO_2 budget source, shall also apply to the owner or operator of such source; and

(B) Any provision of the CO_2 Budget Trading Program that applies to a CO_2 budget unit, or the CO_2 authorized account representative of a CO_2 budget unit, shall also apply to the owner or operator of such unit.

(7) Effect on other authorities. No provision of the CO_2 Budget Trading Program shall be construed as exempting or excluding the owner or operator and, to the extent applicable, the CO_2 authorized account representative of a CO_2 budget source from compliance with the provision of any other applicable state or federal law or regulation.

(8) Computation of time. Notwithstanding section 22a-3a-2(d) of the Regulations of Connecticut State Agencies and unless otherwise stated, the owner or operator of a CO_2 budget source shall be subject to the following computation of time requirements:

(A) Any time period scheduled, under the CO_2 Budget Trading Program, to begin on the occurrence of an act or event shall begin on the day the act or event occurs;

(B) Any time period scheduled, under the CO_2 Budget Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs; and

(C) If the final day of any time period, under the CO_2 Budget Trading Program, falls on a weekend or a state or federal holiday, the time period shall be extended to the next business day.

Table 31-1 Incorporated Reference Material

Citation	Title or Subject	Date on Document
40 CFR 75 including Appendices A, B, D & E	**Part 75-Continuous Emission Monitoring, Appendix A Specification and Test Procedures, Appendix B Quality Assurance and Quality Control Procedures Fired and Oil-Fired Units Appendix E Optional NOx Emissions Estimation Protocol For Gas-Fired Peaking Units and Oil-Fired Peaking Units.**	**May 2012 Edition**
	New York State Renewable Portfolio Standard Biomass Guidebook, Appendix B	**May 2006**

(9) Copies of documents incorporated by reference into this section are available by contacting:

Connecticut Department of Energy and Environmental Protection
Bureau of Air Management
79 Elm Street
Hartford, Connecticut 06106
www.ct.gov/deep

(c) **CO_2 Authorized Account Representative for CO_2 Budget Sources.**

(1) With respect to the CO_2 authorized account representative, the owner or operator of each CO_2 budget source subject to this section shall comply with the following:

(A) Except as provided under subdivision (3)(B) of this subsection, each CO_2 budget source, including all CO_2 budget units at the source, shall have only one CO_2 authorized account representative, with regard to all matters under the CO_2 Budget Trading Program concerning such source;

(B) The CO_2 authorized account representative of the CO_2 budget source shall be selected by an agreement binding on the owners or operators of the source;

(C) The owner or operator of each CO_2 budget source shall:

(i) Be legally bound by any decision or order issued to the CO_2 authorized account representative by the commissioner or a court regarding the source; and

(ii) Be legally bound by any representations, including any actions, inactions or submissions, by the CO_2 authorized account representative;

(D) No CO_2 Allowance Tracking System account shall be established for a CO_2 budget unit at a source, until the commissioner has received a complete account certificate of representation under subdivision (4) of this subsection for a CO_2 authorized account representative;

(E) Each submission under the CO_2 Budget Trading Program shall be submitted, signed, and certified by the CO_2 authorized account representative for each CO_2 budget source on behalf of which the submission is made, and shall:

(i) Include the following certification statement by the CO_2 authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the CO_2 budget sources or CO_2 budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."; and

(ii) Be made, signed and certified in accordance with subsection (e)(1) of this section. Otherwise the commissioner shall not accept or act on a submission made on behalf of owners or operators of a CO_2 budget source; and

(F) If the CO_2 budget source is also subject to section 22a-174-22c of the Regulations of Connecticut State Agencies or the Acid Rain Program, the CO_2 authorized account representative shall be the same person as the designated representative under such programs.

(2) With respect to the CO_2 authorized alternate account representative, the owner or operator of each CO_2 budget source subject to this section shall comply with the following:

(A) An account certificate of representation may designate only one CO_2 authorized alternate account representative who may act on behalf of the CO_2 authorized account representative. The agreement by which the CO_2 authorized alternate account representative is selected shall include a procedure for authorizing the CO_2 authorized alternate account representative to act in lieu of the CO_2 authorized account representative;

(B) Upon receipt by the commissioner of a complete account certificate of representation under subdivision (4) of this subsection, any representation, action, inaction, or submission by the CO_2 authorized alternate account representative shall be deemed to be a representation, action, inaction, or submission by the CO_2 authorized account representative;

(C) Except as provided in this subdivision, subdivisions (1)(A), (3) and (4) of this subsection, and subsection (g)(2) of this section, wherever the term "CO_2 authorized account representative" is used, such term shall be construed to include the CO_2 authorized alternate account representative; and

(D) If the CO_2 budget source is also subject to section 22a-174-22c of the Regulations of Connecticut State Agencies or the Acid Rain Program, the CO_2 authorized alternate account representative shall be the same person as the alternate designated representative under such programs.

(3) Transfers and name changes. With respect to changing the CO_2 authorized account representative and the CO_2 authorized alternate account representative or a change in

ownership or operation of a CO_2 budget source, the owner or operator of each CO_2 budget source shall comply with the following:

(A) Changing the CO_2 authorized account representative. The CO_2 authorized account representative may be changed at any time upon receipt by the commissioner of a superseding complete account certificate of representation under subdivision (4) of this subsection. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CO_2 authorized account representative or CO_2 authorized alternate account representative prior to the time and date when the commissioner receives the superseding account certificate of representation shall be binding on the new CO_2 authorized account representative and the owner or operator of the CO_2 budget source and the CO_2 budget units at the source;

(B) Changing the CO_2 authorized alternate account representative. The CO_2 authorized alternate account representative may be changed at any time upon receipt by the commissioner of a superseding complete account certificate of representation under subdivision (2)(B) of this subsection. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CO_2 authorized account representative or CO_2 authorized alternate account representative prior to the time and date when the commissioner receives the superseding account certificate of representation shall be binding on the new CO_2 authorized alternate account representative and the owner or operator of the CO_2 budget source and the CO_2 budget units at the source;

(C) Changes in the owners and operators. With respect to a change in ownership or control of the CO_2 budget source, the owner or operator of each CO_2 budget source shall comply with the following:

(i) In the event a new owner or operator of a CO_2 budget source is not included in the list of owners and operators submitted in the account certificate of representation, such new owner or operator shall be deemed to be subject to and bound by the account certificate of representation, the representations, actions, inactions, and submissions of the CO_2 authorized account representative and any CO_2 authorized alternate account representative of the source, and the decisions, orders, actions, and inactions of the commissioner, as if the new owner or operator were included in such list; and

(ii) Not later than thirty (30) days following any change in the owner or operator of a CO_2 budget source or a CO_2 budget unit, including the addition of a new owner or operator, the CO_2 authorized account representative or CO_2 authorized alternate account representative shall submit a revision to the account certificate of representation amending the list of owners and operators to include such change.

(4) Account certificate of representation. With respect to an account certificate of representation, the owner or operator of each CO_2 budget source shall comply with the following:

(A) A complete account certificate of representation for a CO_2 authorized account representative or an CO_2 authorized alternate account representative shall be submitted on forms prescribed by the commissioner and shall include the following elements:

(i) Identification of the CO_2 budget source for which the account certificate of representation is submitted;

(ii) The name, address, electronic mail address, telephone number, and facsimile transmission number of the CO_2 authorized account representative and any CO_2 authorized alternate account representative;

(iii) A list of the owners and operators of the CO_2 budget source;

(iv) The following certification statement by the CO_2 authorized account representative and any CO_2 authorized alternate account representative:

"I certify that I was selected as the CO_2 authorized account representative or CO_2 authorized alternate account representative, as applicable, by an agreement binding on the owners and operators of the CO_2 budget source and each CO_2 budget source at the source. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CO_2 Budget Trading Program on behalf of the owners and operators of the CO_2 Budget source and that each such owner and operator shall be fully bound by my representations, actions, inactions or submissions and by any decision or order issued to me by the commissioner or a court regarding the source.";

(v) A statement that such CO_2 authorized account representative is authorized to legally bind each owner or operator of the CO_2 budget source represented by such CO_2 authorized account representative in all matters pertaining to the CO_2 Budget Trading Program, notwithstanding any agreement between the CO_2 authorized account representative and such owners or operators; and

(vi) The signature of the CO_2 authorized account representative and any CO_2 authorized alternate account representative and the dates signed; and

(B) Unless otherwise required by the commissioner, documents of agreement referred to in the account certificate of representation shall not be submitted to the commissioner. The commissioner shall not be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

(5) Objections to the CO_2 authorized account representative.

(A) Once a complete account certificate of representation under subdivision (4) of this subsection has been submitted and received, the commissioner shall rely on the account certificate of representation unless and until the commissioner receives a superseding complete account certificate of representation under subdivision (4) of this subsection; and

(B) Except as provided in subdivision (3)(A) or (B) of this subsection, no objection or other communication submitted to the commissioner concerning the authorization, or any representation, action, inaction, or submission of the CO_2 authorized account representative shall affect any representation, action, inaction, or submission of the CO_2 authorized account representative or the finality of any decision or order by the commissioner under the CO_2 Budget Trading Program.

(6) Delegation by CO_2 authorized account representative and CO_2 authorized alternate account representative.

(A) A CO_2 authorized account representative may delegate, to one or more individuals,

such representative's authority to make an electronic submission to the commissioner under this section;

(B) A CO_2 authorized alternate account representative may delegate, to one or more individuals, such representative's authority to make an electronic submission to the commissioner under this section;

(C) In order to delegate authority to make an electronic submission to the commissioner in accordance with subparagraphs (A) and (B) of this subdivision, the CO_2 authorized account representative or CO_2 authorized alternate account representative, as appropriate, shall submit to the commissioner a notice of delegation, in a format prescribed by the commissioner that includes the following elements:

(i) The name, address, electronic mail address, telephone number, and facsimile transmission number of such CO_2 authorized account representative or CO_2 authorized alternate account representative;

(ii) The name, address, electronic mail address, telephone number and facsimile transmission number of each such individual, in this section referred to as the "electronic submission agent"; and

(iii) For each individual, a list of the type of electronic submissions under subparagraphs (A) or (B) of this subdivision for which authority is delegated to him or her;

(D) A notice of delegation submitted under subparagraph (C) of this subdivision shall also include the following certification statements by such CO_2 authorized account representative or CO_2 authorized alternate account representative:

(i) "I agree that any electronic submission to the commissioner that is by the individual identified in this notice of delegation and of a type listed for such electronic submission agent in this notice of delegation and that is made when I am a CO_2 authorized account representative or CO_2 authorized alternate account representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under section 22a-174-31(c)(6)(E) of the Regulations of Connecticut State Agencies shall be deemed to be an electronic submission by me."; and

(ii) "Until this notice of delegation is superseded by another notice of delegation under section 22a-174-31(c)(6)(E) of the Regulations of Connecticut State Agencies, I agree to maintain an e-mail account and to notify the commissioner immediately of any change in my e-mail address unless all delegation authority by me under section 22a-174-31(c)(6) of the Regulations of Connecticut State Agencies is terminated.";

(E) A notice of delegation submitted pursuant to subparagraph (C) of this subdivision shall be effective, with regard to the CO_2 authorized account representative or CO_2 authorized alternate account representative identified in such notice, upon receipt of such notice by the commissioner and until receipt by the commissioner of a superseding notice of delegation by such CO_2 authorized account representative or CO_2 authorized alternate account representative as appropriate. The superseding notice of delegation may replace any previously identified electronic submission agent, add a new electronic submission agent, or eliminate entirely any delegation of authority; and

(F) Any electronic submission covered by the certification in subparagraph (D)(i) of this subdivision and made in accordance with a notice of delegation effective under subparagraph (E) of this subdivision shall be deemed to be an electronic submission by the CO_2 authorized account representative or CO_2 authorized alternate account representative submitting such notice of delegation.

(d) **Reserved.**

(e) **Compliance Certification.**

(1) Compliance certification report. The owner or operator of each CO_2 budget source shall comply with the following compliance certification report requirements:

(A) Applicability and deadline. For each control period in which a CO_2 budget source is subject to the requirements of subsection (b)(3) of this section, the CO_2 authorized account representative of the source shall submit to the commissioner not later than March 1st immediately following that control period, a compliance certification report.

(B) Contents of report. The CO_2 authorized account representative shall include in the compliance certification report required under subparagraph (A) of this subdivision the following elements, on forms prescribed by, or in a format otherwise acceptable to, the commissioner:

(i) Identification of the source and each CO_2 budget source at the source;

(ii) At the CO_2 authorized account representative's option, the serial numbers of the CO_2 allowances that are to be deducted from the source's compliance account under subsection (g)(5) of this section for the control period; and

(iii) The compliance certification required by subparagraph (C) of this subdivision.

(C) Compliance certification. In the compliance certification report required under subparagraph (A) of this subdivision, the CO_2 authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the CO_2 budget sources in compliance with the CO_2 Budget Trading Program, whether the source and each CO_2 budget source for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the CO_2 Budget Trading Program, including:

(i) Whether the source was operated in compliance with the requirements of subsection (b)(3) of this section;

(ii) Whether the monitoring plan applicable to each unit at the source has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute CO_2 emissions to the unit, in accordance with subsection (i) of this section;

(iii) Whether all the CO_2 emissions from the units at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with subsection (i) of this section. If conditional data were reported, the owner or operator shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;

(iv) Whether the facts that form the basis for certification under subsection (i) of this section of each monitor at each unit at the source, or for using an excepted monitoring method or alternative monitoring method approved under subsection (i) of this section, if applicable, has changed; and

(v) If a change is required to be reported under subsection (c)(4) of this section, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor recertification.

(2) Commissioner's action on compliance certifications.

(A) The commissioner may review and conduct independent audits concerning any compliance certification or any other submission under the CO_2 Budget Trading Program and make appropriate adjustments of the information in the compliance certifications or other submissions.

(B) The commissioner may deduct CO_2 allowances from or transfer CO_2 allowances to a source's compliance account based on the information in the compliance certifications or other submissions, as approved during the commissioner's review under subparagraph (A) of this subdivision.

(f) **CO_2 Allowance Allocations.**

(1) The Connecticut CO_2 Budget Trading Program Base Budget is as follows:

(A) For the 2009 to 2013 allocation years, inclusive, the Connecticut CO_2 Budget Trading Program Base Budget is 10,695,036 tons;

(B) For the 2014 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 5,891,895 tons;

(C) For the 2015 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 5,744,598 tons;

(D) For the 2016 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 5,600,983 tons;

(E) For the 2017 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 5,460,958 tons;

(F) For the 2018 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 5,324,434 tons;

(G) For the 2019 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 5,191,324 tons;

(H) For the 2020 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 5,061,540 tons;

(I) For the 2021 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 4,860,813 tons;

(J) For the 2022 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 4,713,516 tons;

(K) For the 2023 allocation year, the Connecticut CO_2 Budget Trading Program Base

Budget is 4,566,218 tons;

(L) For the 2024 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 4,418,921 tons;

(M) For the 2025 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 4,271,624 tons;

(N) For the 2026 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 4,124,326 tons;

(O) For the 2027 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 3,977,029 tons;

(P) For the 2028 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 3,829,731 tons;

(Q) For the 2029 allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 3,682,434 tons; and

(R) For the 2030 allocation year and each succeeding allocation year, the Connecticut CO_2 Budget Trading Program Base Budget is 3,535,137 tons.

(2) CO_2 allowances available for allocation. For each allocation year 2014 to 2030, inclusive, the Connecticut CO_2 Budget Trading Program Adjusted Budget shall be the maximum number of allowances available for allocation in a given allocation year, except for CO_2 offset allowances and CO_2 CCR allowances.

(A) CO_2 cost containment reserve allowance allocation. The commissioner shall allocate CO_2 CCR allowances, separate from and in addition to the Connecticut CO_2 Budget Trading Program Base Budget set forth in subdivision (1) of this subsection, to the Connecticut Auction Account. The CO_2 CCR allowance allocation shall be for the purpose of containing the cost of CO_2 allowances. The commissioner shall allocate CO_2 CCR allowances in the following manner:

(i) The commissioner shall allocate 323,731 CO_2 CCR allowances for calendar year 2014.

(ii) The Connecticut CO_2 CCR allowances shall be allocated as follows:

(I) On or before January 1, 2015 and each calendar year thereafter through January 1, 2020, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 647,461, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(II) On or before January 1, 2021, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 486,081, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(III) On or before January 1, 2022, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 471,351, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(IV) On or before January 1, 2023, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 456,621, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(V) On or before January 1, 2024, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 441,892, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(VI) On or before January 1, 2025, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 427,162, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(VII) On or before January 1, 2026, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 412,432, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(VIII) On or before January 1, 2027, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 397,702, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(IX) On or before January 1, 2028, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 382,973, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year;

(X) On or before January 1, 2029, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 368,243, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year; and

(XI) On or before January 1, 2030 and each year thereafter, the commissioner shall allocate CO_2 CCR allowances in an amount equal to 353,513, less the number of CO_2 CCR allowances that remain in the Connecticut Auction Account at the end of the prior calendar year.

(B) Connecticut ECR Account cap. The maximum number of CO_2 allowances that can be transferred into the Connecticut ECR Account is as follows:

(i) In calendar year 2021, the maximum number of CO_2 allowances that can be transferred shall be equal to 486,081;

(ii) In calendar year 2022, the maximum number of CO_2 allowances that can be transferred shall be equal to 471,351;

(iii) In calendar year 2023, the maximum number of CO_2 allowances that can be transferred shall be equal to 456,621;

(iv) In calendar year 2024, the maximum number of CO_2 allowances that can be transferred shall be equal to 441,892;

(v) In calendar year 2025, the maximum number of CO_2 allowances that can be transferred shall be equal to 427,162;

(vi) In calendar year 2026, the maximum number of CO_2 allowances that can be transferred shall be equal to 412,432;

(vii) In calendar year 2027, the maximum number of CO_2 allowances that can be transferred shall be equal to 397,702;

(viii) In calendar year 2028, the maximum number of CO_2 allowances that can be transferred shall be equal to 382,973;

(ix) In calendar year 2029, the maximum number of CO_2 allowances that can be

transferred shall be equal to 368,243; and

(x) In calendar year 2030 and each year thereafter, the maximum number of CO_2 allowances that can be transferred shall be equal to 353,513.

(C) First control period interim adjustment for banked allowances. The first control period interim adjustment for banked allowances is as follows:

Not later than March 15, 2014, the commissioner shall determine the first control period interim adjustment for banked allowances for allocation years 2014 to 2020, inclusive, by using the following formula:

$F_{CPIABA} = (F_{CPA}/7) \times (10,695,036/165,000,000)$

Where:

(i) F_{CPIABA} is the first control period interim adjustment for banked allowances, quantity in tons.

(ii) F_{CPA} is the total quantity of allocation year 2009, 2010, and 2011 CO_2 allowances held in general and compliance accounts, including compliance accounts established pursuant to the CO_2 Budget Trading Program, but not including accounts opened by participating states, as reflected in COATS on January 1, 2014.

(iii) (10,695,036/165,000,000) is the Connecticut proportional share of the regional emissions CO_2 emissions cap.

(D) Second control period interim adjustment for banked allowances. The second control period interim adjustment for banked allowances is as follows:

Not later than March 15, 2014, the commissioner shall determine the second control period interim adjustment for banked allowances for allocation years 2015 to 2020, inclusive, by using the following formula:

$S_{CPIABA} = ((S_{CPA} - S_{CPE})/6) \times (10,695,036/165,000,000)$

Where:

(i) S_{CPIABA} is the second control period interim adjustment for banked allowances, quantity in tons.

(ii) S_{CPA} is the total quantity of allocation year 2012 and 2013 CO_2 allowances held in general and compliance accounts, including compliance accounts established pursuant to the CO_2 Budget Trading Program, but not including accounts opened by participating states, as reflected in COATS on March 15, 2014.

(iii) S_{CPE} is the total quantity of 2012 and 2013 emissions from all CO_2 budget sources in all participating states, reported pursuant to CO_2 Budget Trading Program, as reflected in COATS on March 15, 2014.

(iv) (10,695,036/165,000,000) is the Connecticut proportional share of the regional emissions CO_2 emissions cap.

(E) Connecticut CO_2 Budget Trading Program Adjusted Budget for 2014. The commissioner shall determine the Connecticut CO_2 Budget Trading Program Adjusted Budget for the 2014 allocation year by the using the following formula:

$A_B = B_B - F_{CPIABA}$

Where:

(i) A_B is the Connecticut CO_2 Budget Trading Program Adjusted Budget for 2014.

(ii) B_B is the Connecticut CO_2 Budget Trading Program Base Budget for 2014.

(iii) F_{CPIABA} is the first control period interim adjustment for banked allowances.

(F) Connecticut CO_2 Budget Trading Program Adjusted Budgets for 2015 to 2020, inclusive. Not later than April 15, 2014 the commissioner shall determine the Connecticut CO_2 Budget Trading Program Adjusted Budgets for the 2015 to 2020, inclusive, allocation years by using the following formula:

$A_B = B_B – (F_{CPIABA} + S_{CPIABA})$

Where:

(i) A_B is the Connecticut CO_2 Budget Trading Program Adjusted Budget.

(ii) B_B is the Connecticut CO_2 Budget Trading Program Base Budget.

(iii) F_{CPIABA} is the first control period interim adjustment for banked allowances.

(iv) S_{CPIABA} is the second control period interim adjustment for banked allowances.

(G) Third adjustment for banked allowances. Not later than March 15, 2021, the commissioner shall determine the third adjustment for banked allowances for allocation years 2021 through 2025, inclusive, by using the following formula:

TABA = ((TA-TAE)/5) x CTS%

Where:

(i) TABA is the third adjustment for banked allowances in tons.

(ii) TA, third adjustment, is the total quantity of allowances held in general and compliance accounts, including compliance accounts established pursuant to the CO_2 Budget Trading Program, but not including accounts opened by participating states, as reflected in the CO_2 Allowance Tracking System on March 15, 2021.

(iii) TAE, third adjustment emissions, is the total quantity of 2018, 2019, and 2020 emissions from all CO_2 budget sources in all participating states, reported pursuant to the CO_2 Budget Trading Program as reflected in the CO_2 Allowance Tracking System on March 15, 2021.

(iv) CTS is Connecticut's CO_2 Budget Trading Program Base Budget divided by the sum of the base budgets of all participating states.

(H) Connecticut CO_2 Budget Trading Program Adjusted Budgets for 2021 to 2025, inclusive. The commissioner shall determine the Connecticut CO_2 Budget Trading Program Adjusted Budgets for the 2021 to 2025, inclusive, allocation years by using the following formula:

AB = BB - TABA

Where:

(i) AB is the Connecticut CO_2 Budget Trading Program Adjusted Budget.

(ii) BB is the Connecticut CO_2 Budget Trading Program Base Budget.

(iii) TABA is the third adjustment for banked allowances.

(I) After making the calculations in subparagraphs (B) to (H), inclusive, of this subdivision, the commissioner shall publish the Connecticut CO_2 Trading Program Adjusted Budgets for allocation years 2014 to 2025, inclusive, on the Department of Energy and

Environmental Protection's website.

(3) Timing requirements for CO_2 allowance allocations. Not later than January 1, 2014 and January 1 of each year thereafter, the commissioner shall determine the initial CO_2 allowance allocations, in accordance with subdivision (4) of this subsection, for that allocation year.

(4) CO_2 allowance allocations.

(A) In accordance with the timing provisions of subdivision (3) of this subsection, the commissioner shall allocate each annual Connecticut CO_2 Budget Trading Program Adjusted Budget or CO_2 Budget Trading Program Base Budget, as applicable, as follows:

(i) One and one-half (1.5) percent to the Voluntary Clean Energy Purchase Set-aside Account;

(ii) One and one-half (1.5) percent to the Customer-side Distributed Resources (CDR) Set-aside Account;

(iii) One and one-half (1.5) percent to the Combined Heat and Power (CHP) Useful Thermal Energy Set-aside Account; and

(iv) Ninety-five and one-half (95.5) percent shall be allocated to the Connecticut Auction Account;

(B) Not later than April 1, 2009 and April 1 of each year thereafter, the commissioner shall allocate from the CHP Useful Thermal Energy Set-aside Account to the compliance account of each CO_2 budget source generating useful net thermal energy from its CO_2 budget units the number of CO_2 allowances equal to the amount determined by the following equation (rounded to the nearest whole ton), subject to the limitation in subparagraph (C) of this subdivision. CO_2 budget units that are eligible for allowances from the CDR Set-aside Account pursuant to subparagraph (F) of this subdivision shall not be eligible for allowances from the CHP Useful Thermal Output Set-aside Account;

$$\frac{((TEG \div 0.80) \times 136 \frac{lb}{mmBtu})}{2000 \frac{lb}{ton}}$$

Where:

TEG = the average useful net thermal energy (in mmBtu) generated by CO_2 budget units at the CO_2 budget source during the two years preceding the allocation year of the allowances being allocated;

(C) IF $\Sigma A_{CHP1} <= A_{CHP1\text{-}AV}$, THEN

$A_{CHP1\text{-}ALLOCATED} = A_{CHP1}$.

IF $\Sigma A_{CHP1} > A_{CHP1\text{-}AV}$, THEN

$$A_{CHP1-ALLOCATED} = A_{CHP1} \times \left(\frac{A_{CHP1-AV}}{\sum A_{CHP1}} \right)$$

rounded to the nearest whole allowance.

Where:

A_{CHP1} = the number of CO_2 allowances calculated for each CO_2 budget source pursuant to subparagraph (B) of this subdivision;

ΣA_{CHP1} = the total number of CO_2 allowances calculated for CO_2 budget sources pursuant to subparagraph (B) of this subdivision;

$A_{CHP1-AV}$ = the number of CO_2 allowances available for allocation from the CHP Useful Thermal Output Set-aside Account;

$A_{CHP1-ALLOCATED}$ = the number of CO_2 allowances the commissioner shall allocate to the compliance account of each CO_2 budget source;

The commissioner may adjust an allowance allocation under this subparagraph as necessary to not exceed $A_{CHP1-AV}$;

(D) If $\Sigma A_{CHP1} < A_{CHP1-AV}$, allowances from the CHP Useful Thermal Output Set-aside Account not allocated for a vintage year shall be transferred to the Connecticut Auction Account, from which such allowances shall be auctioned in accordance with subdivision (5) of this subsection;

(E) Not later than March 1, 2009 and March 1 of each year thereafter, CO_2 budget sources shall submit, on forms prescribed by the commissioner, information required for the equation specified in subparagraph (B) of this subdivision relating amount of useful net thermal energy generated by CO_2 budget units at the CO_2 budget source during the two years preceding the allocation year of the allowances being allocated. Such information shall be submitted to the commissioner as part of the annual output report required pursuant to subsection (i)(9)(J)(ii) of this section;

(F) Not later than February 28, 2010 and February 28 of each year thereafter, the commissioner shall allocate from the CDR Set-aside Account to the compliance account of each CO_2 budget source, which operates CO_2 budget units that are also customer-side distributed resources that received funds pursuant to the customer-side distributed resources program established by the Public Utilities Regulatory Authority pursuant to section 16-243i of the Connecticut General Statutes, the number of CO_2 allowances equal to the total number of tons of CO_2 emissions emitted by such CO_2 budget units in the previous calendar year (rounded to the nearest whole ton), subject to the limitation in subparagraph (G) of this subdivision;

(G) IF $\Sigma A_{CDR} <= A_{CDR-AV}$, THEN

$A_{CDR-ALLOCATED} = A_{CDR}$.

IF $\Sigma A_{CDR} > A_{CDR-AV}$, THEN

$$A_{CDR-ALLOCATED} = A_{CDR} \times \left(\frac{A_{CDR-AV}}{\sum A_{CDR}} \right)$$

rounded to the nearest whole allowance.

Where:

A_{CDR} = the number of CO_2 allowances calculated for each CO_2 budget source pursuant to subparagraph (F) of this subdivision;

ΣA_{CDR} = the total number of CO_2 allowances calculated for CO_2 budget sources pursuant to subparagraph (F) of this subdivision;

A_{CDR-AV} = the number of CO_2 allowances available for an allocation from the CDR Set-aside Account;

$A_{CDR-ALLOCATED}$ = the number of CO_2 allowances the commissioner shall allocate to the compliance account of each CO_2 budget source;

The commissioner may adjust an allowance allocation under this subparagraph as necessary to not exceed A_{CDR-AV}; and

(H) If $\Sigma A_{CDR} < A_{CDR-AV}$, allowances from the CDR Set-aside Account not allocated for a vintage year shall be transferred to the Connecticut Auction Account, from which such allowances shall be auctioned in accordance with subdivision (5) of this subsection.

(5) CO_2 allowance and CO_2 CCR allowance auctions.

(A) The commissioner or a contractor or trustee selected by the commissioner shall auction the CO_2 allowances in the Connecticut Auction Account at least once per year;

(B) Except as provided by subparagraph (C) of this subdivision, by December 31 of each allocation year, the commissioner or a contractor or trustee selected by the commissioner shall auction the CO_2 allowances with the same allocation year that are held in the Connecticut Auction Account;

(C) CO_2 allowances which are transferred to the Connecticut Auction Account from the CHP Useful Thermal Energy Set-aside Account pursuant to subdivision (4)(D) of this subsection, from the CDR Set-aside Account pursuant to subdivision (4)(H) of this subsection, or from the Voluntary Clean Energy Purchase Set-aside Account pursuant to subdivision (7)(C) of this subsection shall be offered for sale at the next auction held following the transfer of such allowances;

(D) CO_2 CCR allowances shall be auctioned in accordance with the procedures specified in subparagraphs (E) to (G), inclusive, of this subdivision;

(E) CO_2 CCR allowances shall only be sold at auction when the total demand for CO_2 allowances exceeds the number of CO_2 allowances available for purchase at the auction at a price above the following CCR trigger price:

(i) $4.00 per CO_2 allowance for calendar year 2014;

(ii) $6.00 per CO_2 allowance in calendar year 2015;

(iii) $8.00 per CO_2 allowance in calendar year 2016;

(iv) $10.00 per CO_2 allowance in calendar year 2017;

(v) Beginning on January 1, 2018 and January 1 of each year thereafter through 2020,

the CCR trigger price shall increase by 2.5% per year and be rounded to the nearest whole cent; and

(vi) The CCR trigger price in calendar year 2021 shall be $13.00 per CO_2 allowance. Each calendar year thereafter, the CCR trigger price shall increase by 7.0% per year and be rounded to the nearest whole cent;

(F) If the total demand for CO_2 allowances exceeds the number of CO_2 allowances available for purchase at any auction at a price equal to or greater than that specified in subparagraph (E) of this subdivision, then the number of CO_2 CCR allowances offered for sale by the commissioner at such auction shall be equal to the number of CO_2 CCR allowances in the Connecticut Auction Account at the time of the auction;

(G) After the annual supply of CO_2 CCR allowances in the Connecticut Auction Account is exhausted, no additional CO_2 CCR allowances may be offered at any auction for the remainder of that calendar year;

(H) CO_2 allowances offered for sale in an auction shall be transferred into the Connecticut ECR Account at an auction in accordance with the provisions specified in subparagraphs (I) to (K), inclusive, of this subdivision;

(I) CO_2 allowances shall be transferred into the Connecticut ECR Account at auction when the demand for CO_2 allowances would result in an auction clearing price less than the ECR trigger price prior to the transfer. In 2021, the ECR trigger price shall be $6.00 per CO_2 allowance. Each calendar year thereafter, the ECR trigger price shall increase by 7.0% per year, rounded to the nearest whole cent;

(J) If the conditions in subparagraph (I) are met at an auction, then the maximum number of CO_2 allowances offered for sale at an auction that are transferred into the Connecticut ECR Account shall be equal to the applicable quantity identified in subdivision (2)(B) minus the total quantity of CO_2 allowances that has been transferred in any prior auction in that calendar year;

(K) After the maximum number of CO_2 allowances identified in subdivision (2)(B) of this subsection has been transferred into the Connecticut ECR Account, no additional CO_2 allowances may be transferred at any auction for the remainder of that calendar year.

(6) Distribution of auction proceeds. Not later than December 31, 2014 and December 31 of each year thereafter, proceeds derived from the sale of CO_2 allowances or CO_2 CCR allowances held in the Connecticut Auction Account shall be distributed as specified in subparagraphs (A) to (D), inclusive, of this subdivision:

(A) Seven and one-half (7.5) percent of auction proceeds, less any amount of revenue refunded pursuant to subsection (j) of this section, shall be retained by the commissioner for use in accordance with section 22a-200c(c) of the Connecticut General Statutes;

(B) Twenty-three (23) percent of proceeds from auctions, less any amount of revenue refunded pursuant to subsection (j) of this section, shall be transferred to an account held by the Connecticut Green Bank for the Clean Energy Fund. Proceeds are to be used to support the development of Class I renewable energy sources. The amount of proceeds to be transferred to CEF shall be determined based on the following criteria:

(i) Not later than October 31, 2009 and October 31 of each year thereafter, CEF may apply for such funds on forms prescribed by the commissioner; and

(ii) The commissioner shall transfer funds to CEF provided that CEF demonstrates such funds will be committed within twelve months from the date of receipt to support the development of Class I renewable energy sources and further provided that for the prior year ending June 30 there is no more than ten million dollars unallocated;

(C) Sixty-nine and one-half (69.5) percent of proceeds from auctions, less any amount of revenue refunded pursuant to subsection (j) of this section, shall be distributed as follows:

(i) From January 1, 2014 to June 30, 2015, inclusive, proceeds shall be transferred under this subdivision as follows:

(I) Four and one one-hundredths (4.01) percent shall be transferred to an account held by the Connecticut Municipal Electric Energy Cooperative (CMEEC) for use in supporting energy efficiency programs, provided that the commissioner shall not transfer any funds to CMEEC for any calendar year for which the report required by subparagraph (D) of this subdivision is not received by April 30 of such calendar year, and further provided that the commissioner may withhold the transfer of any portion of the funds to CMEEC if the report filed by CMEEC fails to provide a full and accurate accounting of the use of all such funds;

(II) Two and twenty-four one-hundredths (2.24) percent shall be distributed to the Wallingford Electric Division (WED) for use in supporting energy efficiency programs, provided that the commissioner shall not transfer any funds to WED for any calendar year for which the report required by subparagraph (D) of this subdivision is not received by April 30 of such calendar year, and further provided that the commissioner may withhold the transfer of any portion of the funds to WED if the report filed by WED fails to provide a full and accurate accounting of the use of all such funds;

(III) Up to one million two hundred and fifty thousand dollars (1,250,000) shall be transferred, quarterly, to accounts held by Connecticut Light & Power (CL&P) and United Illuminating (UI) and overseen by the EEB for use in supporting energy efficiency programs. Such proceeds shall be allocated as follows: one million (1,000,000) dollars into an account held by CL&P and overseen by the EEB and two hundred and fifty thousand dollars (250,000) into an account held by UI and overseen by the EEB;

(IV) In the event that there are any excess proceeds under this subparagraph after the distributions specified in subclause (I) to (III), inclusive, of this clause have been made, such excess proceeds shall be transferred to the Connecticut Green Bank pursuant to section 22a-200c of the general statutes to be used to support energy efficiency programs, provided that the total amount of such proceeds transferred to the Connecticut Green Bank under this subdivision shall not exceed twenty-five million four hundred thousand (25,400,000) dollars, and further provided that such proceeds may be allocated to the Connecticut Green Bank on a pro-rated quarterly basis; and

(V) In the event that there are any excess proceeds under this subparagraph after the distributions specified in subclause (I) to (IV), inclusive, of this clause have been made, such excess proceeds shall be distributed to the CL&P account and the UI account for use

in supporting energy efficiency programs, according to the following allocation: eighty (80) percent of such proceeds shall be transferred into an account held by CL&P and overseen by the EEB, and twenty (20) percent of such proceeds shall be transferred into an account held by UI and overseen by the EEB.

(ii) On and after July 1, 2015, proceeds shall be transferred under this subdivision as follows:

(I) Seventy-five (75) percent of such proceeds shall be transferred into an account held by CL&P and overseen by the EEB to be used to support energy efficiency programs;

(II) Eighteen and three-fourths (18.75) percent shall be transferred into an account held by UI and overseen by the EEB to be used to support energy efficiency programs;

(III) Four and one one-hundredths (4.01) percent shall be transferred to an account held by CMEEC to be used to support energy efficiency programs, provided that the commissioner shall not transfer any funds to CMEEC for any calendar year for which the report required by subparagraph (D) of this subdivision is not received by April 30 of such calendar year, and further provided that the commissioner may withhold the transfer of any portion of the funds to CMEEC if the report filed by CMEEC fails to provide a full and accurate accounting of the use of all such funds; and

(IV) Two and twenty-four one-hundredths (2.24) percent shall be distributed to WED for to be used to support energy efficiency programs, provided that the commissioner shall not transfer any funds to WED for any calendar year for which the report required by subparagraph (D) of this subdivision is not received by April 30 of such calendar year, and further provided that the commissioner may withhold the transfer of any portion of the funds to WED if the report filed by WED fails to provide a full and accurate accounting of the use of all such funds.

(D) CMEEC and WED shall each provide a full accounting of the use of funds transferred to the respective CMEEC and WED accounts in accordance with the provisions of subparagraph (C) of this subdivision. Such accounting shall be submitted in the form of a report to the commissioner, and the chairperson of the Energy Efficiency Board. CMEEC shall also submit a copy of its report to the chief elected officials in any municipality served by CMEEC municipal utilities not later than April 30, 2014 and annually thereafter through the year following the date of the final expenditure of any funds received pursuant to subparagraph (C) of this subdivision.

(7) Retirement of Allowances. Any retirement of allowances shall be determined as follows:

(A) The commissioner shall permanently retire a number of CO_2 allowances from the Voluntary Clean Energy Purchase Set-aside Account based upon documented voluntary renewable energy purchases by customers in Connecticut that represent RECs sold through the Connecticut Clean Energy Options program or renewable energy generated from within any participating state represented as RECs sold to Connecticut customers through means other than the Connecticut Clean Energy Options program. The commissioner shall retire the number of CO_2 allowances equal to the amount determined by the following equation

(rounded to the nearest whole ton), subject to the limitations in subparagraph (B) of this subdivision and the requirements of subparagraphs (E) and (F) of this subdivision:

(MWH_{CCEO} + MWH_{RECS}) x (0.554 tons CO_2 / MWh)

Where:

MWH_{CCEO} = the total number of RECs sold (in MWhs) to Connecticut customers through the Connecticut Clean Energy Options program in the year prior to the vintage year of the CO_2 allowances to be retired;

MWH_{RECS} = the total number of RECs from renewable energy sources located within any participating state sold (in MWhs) to Connecticut customers through means other than the Connecticut Clean Energy Options program in the year prior to the vintage year of the CO_2 allowances to be retired;

(B) If the total number of allowances calculated to be retired pursuant to subparagraph (A) of this subdivision exceeds the number of CO_2 allowances held in the Voluntary Clean Energy Purchase Set-aside Account, then the number of CO_2 allowances to be retired shall be equal to the total number of CO_2 allowances allocated in the Voluntary Clean Energy Purchase Set-aside Account pursuant to subdivision (4)(A) of this subsection;

(C) If the total number of allowances calculated to be retired pursuant to subparagraph (A) of this subdivision is less than the number of CO_2 allowances held in the Voluntary Clean Energy Purchase Set-aside Account, then allowances from the Voluntary Clean Energy Purchase Set-aside Account not allocated for a vintage year shall be transferred to the Connecticut Auction Account, from which such allowances shall be auctioned in accordance with subdivision (5) of this subsection;

(D) Not later than October 1, 2009 and October 1 of each year thereafter, the commissioner shall retire the number of allowances determined pursuant to subparagraphs (A) and (B) of this subdivision by transferring them to the Connecticut CO_2 Allowance Retirement Account;

(E) Data for the total number of RECs sold to Connecticut customers through the Connecticut Clean Energy Options program required for the equation specified in subparagraph (A) of this subdivision shall be obtained from the Public Utilities Regulatory Authority;

(F) Not later than June 30, 2009 and June 30 of each year thereafter, information required for the equation specified in subparagraph (A) of this subdivision relating to the number of RECs from renewable energy sources located within any participating state sold to Connecticut customers through means other than the Connecticut Clean Energy Options program in the previous year may be submitted by the retail provider that sold such RECs. Such information shall also include:

(i) Documentation that the retail provider procured the renewable energy or renewable energy attributes related to voluntary renewable energy or renewable energy attribute credit;

(ii) The time period when the retail purchase or purchases were made;

(iii) The state where the REC was created, including documentation of facility name, unique generator identification number and fuel type; and

(iv) Any additional information required by the commissioner necessary to demonstrate that such REC purchase is not being credited in more than one participating state.

(G) The Commissioner may retire any undistributed CO_2 allowances at the end of each control period;

(H) The Commissioner may retire any unsold CO_2 allowances at the end of each control period.

(g) **Allowance Tracking System.**

(1) CO_2 Allowance Tracking System accounts.

(A) Nature and function of compliance accounts. Consistent with subdivision (2)(A) of this subsection, the commissioner shall establish one compliance account for each CO_2 budget source. Allocations of CO_2 allowances pursuant to subsection (f) of this section and deductions or transfers of CO_2 allowances pursuant to subdivisions (5) or (7) of this subsection or subsections (e)(2) or (h) of this section shall be recorded in the compliance accounts in accordance with this subsection; and

(B) Nature and function of general accounts. Consistent with subdivision (2)(B) of this subsection, the commissioner shall establish, upon request, a general account for any person. Transfers of CO_2 allowances pursuant to subsection (h) of this section shall be recorded in the general account in accordance with this subsection.

(2) Establishment of accounts.

(A) Compliance accounts. Upon receipt of a complete account certificate of representation under subsection (c)(4) of this section, the commissioner shall establish a compliance account for each CO_2 budget source for which the account certificate of representation was submitted;

(B) General accounts. Any person may apply to open a general account for the purpose of holding and transferring CO_2 allowances. Such application shall:

(i) Designate only one CO_2 authorized account representative and only one CO_2 authorized alternate account representative who may act on behalf of the CO_2 authorized account representative; and

(ii) Include a procedure for authorizing the CO_2 authorized alternate account representative to act in lieu of the CO_2 authorized account representative;

(C) A complete application for a general account shall be submitted to the commissioner and shall include the following elements on forms prescribed by the commissioner:

(i) Name, address, electronic mail address, telephone number, and facsimile transmission number of the CO_2 authorized account representative and any CO_2 authorized alternate account representative;

(ii) At the option of the CO_2 authorized account representative, organization name and type of organization;

(iii) A list of all persons subject to a binding agreement for the CO_2 authorized account representative or any CO_2 authorized alternate account representative to represent their ownership interest with respect to the CO_2 allowances held in the general account;

(iv) The following certification statement by the CO_2 authorized account representative

and any CO_2 authorized alternate account representative: "I certify that I was selected as the CO_2 authorized account representative or the CO_2 authorized alternate account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to CO_2 allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CO_2 Budget Trading Program on behalf of such persons and that each such person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the commissioner or a court regarding the general account.";

(v) The signature of the CO_2 authorized account representative and any CO_2 authorized alternate account representative and the dates signed; and

(vi) Unless otherwise required by the commissioner, documents of agreement referred to in the application for a general account shall not be submitted to the commissioner. The commissioner shall not be under any obligation to review or evaluate the sufficiency of such documents, if submitted;

(D) Authorization of CO_2 authorized account representative. Upon receipt by the commissioner of a complete application for a general account under subparagraph (C) of this subdivision:

(i) The commissioner shall establish a general account for the person or persons for whom the application is submitted;

(ii) The CO_2 authorized account representative and any CO_2 authorized alternate account representative for the general account shall represent and, by such representations, actions, inactions or submissions, legally bind each person who has an ownership interest with respect to CO_2 allowances held in the general account in all matters pertaining to the CO_2 Budget Trading Program, notwithstanding any agreement between the CO_2 authorized account representative or any CO_2 authorized alternate account representative and such person. Any such person shall be bound by any order or decision issued to the CO_2 authorized account representative or any CO_2 authorized alternate account representative by the commissioner or a court regarding the general account; and

(iii) Any representation, action, inaction or submission by any CO_2 authorized alternate account representative shall be deemed to be a representation, action, inaction or submission by the CO_2 authorized account representative;

(E) Each submission concerning the general account shall be submitted, signed and certified by the CO_2 authorized account representative or any CO_2 authorized alternate account representative for the persons having an ownership interest with respect to CO_2 allowances held in the general account. Each such submission shall include the following certification statement by the CO_2 authorized account representative or any CO_2 authorized alternate account representative:

"I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the CO_2 allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of

those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(F) The commissioner shall accept or act on a submission concerning the general account only if the submission has been made, signed and certified in accordance with subparagraph (E) of this subdivision;

(G) Changing CO_2 authorized account representative and CO_2 authorized alternate account representative; changes in persons with ownership interest.

(i) The CO_2 authorized account representative for a general account may be changed at any time upon receipt by the commissioner of a superseding complete application for a general account under subparagraph (B) of this subdivision. Notwithstanding any such change, all representations, actions, inactions and submissions by the previous CO_2 authorized account representative or the previous CO_2 authorized alternate account representative prior to the time and date when the commissioner receives the superseding application for a general account shall be binding on the new CO_2 authorized account representative and the persons with an ownership interest with respect to the CO_2 allowances in the general account; and

(ii) The CO_2 authorized alternate account representative for a general account may be changed at any time upon receipt by the commissioner of a superseding complete application for a general account under subparagraph (B) of this subdivision. Notwithstanding any such change, all representations, actions, inactions and submissions by the previous CO_2 authorized account representative or the previous CO_2 authorized alternate account representative prior to the time and date when the commissioner receives the superseding application for a general account shall be binding on the new CO_2 authorized alternate account representative and the persons with an ownership interest with respect to the CO_2 allowances in the general account;

(H) In the event of the addition of a new person or persons to the list of persons having an ownership interest with respect to CO_2 allowances in the general account:

(i) Such new person or persons shall be deemed to be subject to and bound by the application for a general account, the representations, actions, inactions and submissions of the CO_2 authorized account representative and any CO_2 authorized alternate account representative of the source, and the decisions, orders, actions and inactions of the commissioner, as if the new individual were included in such list; and

(ii) Not later than thirty (30) days following any change in the list of persons having an ownership interest with respect to CO_2 allowances in the general account, including the addition of a new person or persons, the CO_2 authorized account representative or any CO_2 authorized alternate account representative shall submit a revision to the application for a general account that amends the list of persons having an ownership interest with respect to the CO_2 allowances in the general account to include the change;

(I) Objections concerning CO_2 authorized account representative.

(i) Once a complete application for a general account under subparagraph (C) of this subdivision has been submitted and received, the commissioner shall rely on such application unless and until the commissioner receives a superseding complete application for a general account under subparagraph (C) of this subdivision; and

(ii) Except as provided in subparagraphs (G)(i) and (ii) of this subdivision, no objection or other communication submitted to the commissioner concerning the authorization, or any representation, action, inaction or submission of the CO_2 authorized account representative or any CO_2 authorized alternate account representative for a general account shall affect any representation, action, inaction or submission of the CO_2 authorized account representative or any CO_2 authorized alternate account representative or the finality of any decision or order by the commissioner under the CO_2 Budget Trading Program ; and

(J) Account identification. The commissioner shall assign a unique identification number to each account established under subparagraph (A) or (B) of this subdivision.

(3) CO_2 Allowance Tracking System responsibilities of CO_2 authorized account representative. Following the establishment of a CO_2 Allowance Tracking System account, all submissions to the commissioner pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of CO_2 allowances in the account, shall be made only by the CO_2 authorized account representative for the account.

(4) Recordation of CO_2 allowance allocations**.**

(A) Not later than January 1, 2014, the commissioner shall record in the Connecticut Auction Account and the CHP Useful Thermal Energy Set-aside Account the CO_2 allowances for the allocation year 2014;

(B) Not later than February 28, 2009 and February 28 of each year thereafter, the commissioner shall record any CO_2 allowances allocated pursuant to subsections (f)(4)(F) and (f)(4)(G) of this section in the CO_2 budget source's compliance account;

(C) Not later than October 1, 2009 and October 1 of each year thereafter, the commissioner shall record any CO_2 allowances retired pursuant to subsection (f)(7) of this section in the Connecticut CO_2 Allowance Retirement Account;

(D) Not later than seven business days after the results of an auction conducted pursuant to subsection (f)(5) of this section are deemed final by the commissioner, the commissioner or the commissioner's trustee shall record CO_2 allowances purchased from the Connecticut Auction Account; and

(E) Serial numbers for allocated CO_2 allowances. When allocating CO_2 allowances to and recording them in an account, the commissioner shall assign each CO_2 allowance a unique identification number that shall include digits identifying the year for which the CO_2 allowance is allocated.

(5) Compliance.

(A) Allowances available for compliance deduction. CO_2 allowances that meet the following criteria are available to be deducted in order for a CO_2 budget source to comply with the requirements of subsection (b)(3) of this section for a control period or an interim

control period.

(i) The CO_2 allowances are of allocation years that fall within a prior control period, the same control period, or the same interim control period for which the allowances will be deducted; and

(ii) The CO_2 allowances are held in the CO_2 budget source's compliance account as of the CO_2 allowance transfer deadline for that control period or interim control period or are transferred into the compliance account by a CO_2 allowance transfer correctly submitted for recordation under subsection (h)(1) of this section by the CO_2 allowance transfer deadline for that control period or interim control period;

(B) For CO_2 offset allowances, the number of CO_2 offset allowances that are available to be deducted in order for a CO_2 budget source to comply with the requirements of subsection (b)(3) of this section for a control period or an interim control period may not exceed three and three tenths (3.3) percent of the CO_2 budget source's CO_2 emissions for that control period, or of one-half of the CO_2 budget source's CO_2 emissions for an interim control period, as determined in accordance with subsection (i) of this section;

(C) CO_2 allowances are not necessary for deductions for excess emissions for a prior control period under subparagraph (G) of this subdivision;

(D) Deductions for compliance. Following the recordation, in accordance with subsection (h)(2) of this section, of CO_2 allowance transfers submitted for recordation in the CO_2 budget source's compliance account by the CO_2 allowance transfer deadline for a control period or interim control period , the commissioner shall deduct CO_2 allowances available under subparagraph (A) of this subdivision to cover the source's CO_2 emissions, as determined in accordance with subsection (i) of this section, for the control period or interim control period, as follows:

(i) Until the amount of CO_2 allowances deducted equals the number of tons of total CO_2 emissions, or one-half of the number of tons of total CO_2 emissions for the interim control period, less any CO_2 emissions attributable to the burning of eligible biomass, determined in accordance with subsection (i) of this section, from all CO_2 budget units at the CO_2 budget source for the control period or interim control period; or

(ii) If there are insufficient CO_2 allowances to complete the deductions in clause (i) of this subparagraph, until no more CO_2 allowances available under subparagraph (A) of this subdivision remain in the compliance account;

(E) Identification of CO_2 allowances by serial number. The CO_2 authorized account representative for a source's compliance account may request that specific CO_2 allowances, identified by serial number, in the compliance account be deducted for emissions or excess emissions for a control period or interim control period in accordance with subparagraph (D) or (G) of this subdivision. Such identification shall be made in the compliance certification report submitted in accordance with subsection (e)(1) of this section;

(F) The commissioner shall deduct CO_2 allowances for a control period or interim control period from the CO_2 budget source's compliance account, in the absence of an identification or in the case of a partial identification of CO_2 allowances by serial number under

subparagraph (E) of this subdivision, in the following order:

(i) The commissioner shall first deduct CO_2 offset allowances subject to the relevant compliance deduction limitations under subparagraphs (D) and (G) of this subdivision. CO_2 offset allowances shall be deducted in chronological order (i.e., CO_2 offset allowances from earlier allocation years shall be deducted before CO_2 offset allowances from later allocation years). In the event that chronological order cannot be determined, the commissioner shall deduct CO_2 offset allowances by serial number, with lower serial numbered CO_2 offset allowances deducted before higher serial number allowances; and

(ii) The commissioner shall next deduct any CO_2 allowances, other than CO_2 offset allowances, that are available for deduction under subparagraph (A) of this subdivision. CO_2 allowances shall be deducted in chronological order (i.e., CO_2 allowances from earlier allocation years shall be deducted before CO_2 allowances from later allocation years). In the event that chronological order cannot be determined, the commissioner shall deduct CO_2 allowances by serial number, with lower serial numbered CO_2 allowances deducted before higher serial number allowances.

(G) Deductions for excess emissions. After making the deductions for compliance under subparagraph (D) of this subdivision, the commissioner shall deduct from the CO_2 budget source's compliance account a number of CO_2 allowances, from allocation years that occur after the control period in which the source has excess emissions, equal to three times the number of the source's excess emissions. No CO_2 offset allowances shall be deducted to account for the source's excess emissions. Any such CO_2 allowance deduction shall not affect the liability of the owners and operators of the CO_2 budget source or the CO_2 budget sources at the source for any fine, penalty or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under applicable state law. When assessing fines, penalties or other obligations, the commissioner shall:

(i) Consider each day in the control period a day in violation when determining the number of days of violation if a CO_2 budget source has excess emissions for a control period unless the owner or operator of the source demonstrates that a lesser number of days should be considered;

(ii) Consider each ton of excess emissions as a separate violation;

(iii) Consider each day in the interim control period a day in violation when determining the number of days of violation if a CO_2 budget source has excess interim emissions for an interim control period unless the owner or operator of the source demonstrates that a lesser number of days should be considered; and

(iv) Consider each ton of excess interim emissions as a separate violation.

(H) The commissioner shall record in the appropriate compliance account all deductions from such an account pursuant to subparagraphs (D) and (G) of this subdivision; and

(I) Action by the commissioner on submissions. The commissioner may review and conduct independent audits concerning any submission under the CO_2 Budget Trading Program and make appropriate adjustments of the information in the submissions, including but not limited to, deductions of CO_2 allowances from or transfer of CO_2 allowances to a

source's compliance account based on information in any such submissions.

(6) Banking. Each CO_2 allowance that is held in a compliance account or a general account shall remain in such account unless and until the CO_2 allowance is deducted or transferred under subdivision (5) or (7) of this subsection and under subsection (e)(2), or (h) of this section.

(7) Account error. The commissioner may correct any error in any CO_2 Allowance Tracking System account. Not later than ten (10) business days after making such correction, the commissioner shall notify the CO_2 authorized account representative for the account.

(8) Closing of general accounts. The commissioner may close a general account for one of the following reasons:

(A) A CO_2 authorized account representative or a CO_2 authorized alternate account representative of a general account may instruct the commissioner to close the account by submitting a statement requesting deletion of the account from the CO_2 Allowance Tracking System and by correctly submitting for recordation under subsection (h)(1) of this section a CO_2 allowance transfer of all CO_2 allowances in the account to one or more other CO_2 Allowance Tracking System accounts; or

(B) If a general account shows no activity for a period of one year or more and does not contain any CO_2 allowances, the commissioner may notify the CO_2 authorized account representative or a CO_2 authorized alternate account representative for the account that the account shall be closed and deleted from the CO_2 Allowance Tracking System following thirty (30) business days after the notice is sent. The account shall be closed after the thirty day period unless before the end of such thirty day period the commissioner receives a correctly submitted transfer of CO_2 allowances into the account under subsection (h)(1) of this section or a statement submitted by the CO_2 authorized account representative or a CO_2 authorized alternate account representative demonstrating to the satisfaction of the commissioner good cause as to why the account should not be closed.

(h) **CO_2 Allowance Transfers.**

(1) Submission of CO_2 allowance transfers. The CO_2 authorized account representatives seeking recordation of a CO_2 allowance transfer shall submit the transfer to the commissioner. The CO_2 allowance transfer shall include the following information:

(A) The numbers identifying both the transferor and transferee accounts;

(B) A specification by serial number of each CO_2 allowance to be transferred; and

(C) The printed name and signature of the CO_2 authorized account representative of the transferor account and the date signed.

(2) Recordation.

(A) Not later than five (5) business days after receiving a CO_2 allowance transfer, except as provided in subparagraph (B) of this subdivision, the commissioner shall record a CO_2 allowance transfer by moving each CO_2 allowance from the transferor account to the transferee account as specified by the request, provided that:

(i) The transfer is correctly submitted under subdivision (1) of this subsection; and

(ii) The transferor account includes each CO_2 allowance identified by serial number in

the transfer;

(B) A CO_2 allowance transfer into or out of a compliance account that is submitted for recordation following the CO_2 allowance transfer deadline and that includes any CO_2 allowances that are of allocation years that fall within a control period prior to or the same as the control period to which the CO_2 allowance transfer deadline applies shall not be recorded until after completion of the process pursuant to subsection (g)(5)(D) of this section; and

(C) Where a CO_2 allowance transfer submitted for recordation fails to meet the requirements of subparagraph (A) of this subdivision, the commissioner shall not record such transfer.

(3) Notification.

(A) Notification of recordation. Not later than five (5) business days after recordation of a CO_2 allowance transfer under subdivision (2) of this subsection, the commissioner shall notify each party to the transfer. Notice shall be given to the CO_2 authorized account representatives of both the transferor and transferee accounts;

(B) Notification of non-recordation. Not later than ten (10) business days after receipt of a CO_2 allowance transfer that fails to meet the requirements of subdivision (2)(A) of this subsection, the commissioner shall notify the CO_2 authorized account representatives of both accounts subject to the transfer of:

(i) A decision not to record the transfer; and

(ii) The reasons for such non-recordation.

(C) Nothing in this section shall preclude the submission of a CO_2 allowance transfer for recordation following notification of non-recordation.

(i) **Monitoring and Reporting.**

(1) For the purposes of this subsection the definitions in subsection (a) of this section and in 40 CFR 72.2 shall apply. In the case of conflict or inconsistency between the definitions in subsection (a) of this section and in 40 CFR 72.2, the definition in subsection (a) of this section shall control. The terms "affected unit" and "designated representative" in 40 CFR 75 shall be replaced by the terms "CO_2 budget unit", and "CO_2 authorized account representative", respectively, as defined in subsection (a) of this section, except as otherwise provided. The definition of "continuous emission monitoring system" or "CEMS" in 40 CFR 75 shall be replaced with the definition in subsection (a) of this section. If a CO_2 budget unit is not subject to an acid rain emissions limitation, the term "Administrator" shall be replaced by the term "commissioner" as defined in subsection (a) of this section.

(2) The owner or operator and, to the extent applicable, the CO_2 authorized account representative of a CO_2 budget source shall comply with the monitoring, recordkeeping and reporting requirements as provided in this subsection. The owner or operator of a CO_2 budget source shall comply with the monitoring, recordkeeping and reporting requirements set forth in 40 CFR 75 applicable to CO_2 mass emissions. The owner or operator of a CO_2 budget unit who monitors a non-CO_2 budget unit pursuant to the common, multiple, or bypass stack procedures in 40 CFR 75.72 (b)(2)(ii), or 40 CFR 75.16 (b)(2)(ii)(B) as

pursuant to 40 CFR 75.13, for purposes of complying with this section, shall monitor and report CO_2 mass emissions from such non-CO_2 budget unit according to the procedures for CO_2 budget units established in subdivisions (2) to (8), inclusive, of this subsection.

(A) Requirements for installation, certification, and data accounting. The owner or operator of each CO_2 budget source shall:

(i) Install all monitoring systems necessary to monitor CO_2 mass emissions in accordance with 40 CFR 75, except for equation G-1. Equation G-1 in Appendix G of 40 CFR 75 shall not be used to determine CO_2 emissions under this section. This may require systems to monitor CO_2 concentration, stack gas flow rate, O_2 concentration, heat input and fuel flow rate;

(ii) Successfully complete all certification tests required under this subsection and meet all other requirements of this subsection and 40 CFR 75 applicable to the monitoring systems installed under subparagraph (A)(i) of this subdivision; and

(iii) Make and keep records, report and test for quality assurance of the data from the monitoring systems installed under subparagraph (A)(i) of this subdivision;

(B) Compliance dates. The owner or operator shall meet the monitoring system certification and other requirements of subparagraphs (A)(i) to (A)(iii), inclusive, of this subdivision on or before the following dates:

(i) The owner or operator of a CO_2 budget source that commences commercial operation before July 1, 2008, shall comply with the requirements of this subsection not later than January 1, 2009;

(ii) The owner or operator of a CO_2 budget source that commences commercial operation on or after July 1, 2008, shall comply with the requirements of this subsection by the later of January 1, 2009, or one hundred and eighty (180) calendar days after the date on which the source commences commercial operation; and

(iii) For the owner or operator of a CO_2 budget source for which construction of a new stack or flue installation is completed after the applicable deadline under clauses (i) or (ii) of this subparagraph by the earlier of ninety (90) source operating days after the date on which emissions first exit to the ambient air through the new stack or flue or one hundred and eighty (180) calendar days after the date on which emissions first exit to the ambient air through the new stack or flue;

(C) Reporting data.

(i) Except as provided in clause (ii) of this subparagraph, the owner or operator of a CO_2 budget source that does not meet the applicable compliance date set forth in subparagraphs (B)(i) and (B)(ii) of this subdivision for any monitoring system under subparagraph (A) of this subdivision shall, for each such monitoring system, determine, record and report maximum potential or, as appropriate, minimum potential, values for CO_2 concentration, CO_2 emission rate, stack gas moisture content, fuel flow rate, heat input and any other parameter required to determine CO_2 mass emissions in accordance with 40 CFR 75.31(b)(2) or 40 CFR 75.31(c)(3), section 2.4 of Appendix D of 40 CFR 75 or Appendix E of 40 CFR 75;

(ii) The owner or operator of a CO_2 budget source that does not meet the applicable compliance date set forth in subparagraph (B)(iii) of this subdivision for any monitoring system under subparagraph (A)(i) of this subdivision shall, for each such monitoring system, determine, record and report substitute data using the applicable missing data procedures in 40 CFR 75, Subpart D, or 40 CFR 75, Appendix D or E, in lieu of the maximum potential or, as appropriate, minimum potential, values for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction of a new stack or flue installation under subparagraph (B)(iii) of this subdivision;

(iii) CO_2 budget units subject to an acid rain emissions limitation or to section 22a-174-22c of the Regulations of Connecticut State Agencies that qualify for the optional SO_2, NO_X, and CO_2 emissions calculations for low mass emissions (LME) units, as applicable, under 40 CFR 75.19 and report emissions for such programs using the calculations provided in 40 CFR 75.19, shall also use the CO_2 emissions calculations for LME units under 40 CFR 75.19 for purposes of demonstrating compliance with this section;

(iv) CO_2 budget units subject to an acid rain emissions limitation or to section 22a-174-22c of the Regulations of Connecticut State Agencies that do not qualify for the optional SO_2, NO_X, and CO_2 emissions calculations for LME units, as applicable, under 40 CFR 75.19, shall not use the CO_2 emissions calculations for LME units under 40 CFR 75.19 for purposes of demonstrating compliance with this section; and

(v) CO_2 budget units not subject to an acid rain emissions limitation or to section 22a-174-22c of the Regulations of Connecticut State Agencies shall qualify for the optional CO_2 emissions calculation for LME units under 40 CFR 75.19, provided that such units emit less than 100 tons of NO_X annually and no more than 25 tons of SO_2 annually;

(D) Prohibitions. No owner or operator of a CO_2 budget unit shall use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emission monitoring system without having obtained prior written approval in accordance with subsection (i)(6) of this section;

(E) No owner or operator of a CO_2 budget unit shall operate the source so as to discharge, or allow to be discharged, CO_2 emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this subsection and 40 CFR 75;

(F) No owner or operator of a CO_2 budget unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording CO_2 mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing or maintenance is performed in accordance with the applicable provisions of this subsection and 40 CFR 75; and

(G) No owner or operator of a CO_2 budget unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emission monitoring system under this subsection, except under any one of the following circumstances:

(i) The owner or operator is monitoring emissions from the source with another certified monitoring system approved by the permitting authority, in accordance with the applicable provisions of this subsection and 40 CFR 75, for use at that source that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

(ii) The CO_2 authorized account representative submits notification of the date of certification testing of a replacement monitoring system in accordance with subparagraph (B)(ii) of this subdivision.

(3) Initial certification and recertification procedures.

(A) The owner or operator of a CO_2 budget source shall be exempt from the initial certification requirements of this section for a monitoring system under subdivision (2)(A)(i) of this subsection if the following conditions are met:

(i) The monitoring system has been previously certified in accordance with 40 CFR 75; and

(ii) The applicable quality-assurance and quality-control requirements of 40 CFR 75.21 and 40 CFR 75 Appendices B, D, and E are fully met for the certified monitoring system described in subdivision (2)(A) of this subsection;

(B) Continuous emission monitoring systems required under this section include, but are not limited to, the following:

(i) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in standard cubic feet per hour;

(ii) A nitrogen oxides emission rate or NOx-diluent monitoring system, consisting of a NOx pollutant concentration monitor, a diluent gas monitor, and an automated data acquisition and handling system and providing a permanent, continuous record of NOx concentration, in parts per million, diluent gas concentration, in percent CO_2 or O_2; and NOx emission rate, in lb/MMBtu;

(iii) A moisture monitoring system, as described in 40 CFR 75.11(b)(2), which provides a permanent, continuous record of the stack gas moisture content, in percent H_2O;

(iv) A carbon dioxide monitoring system, consisting of a CO_2 pollutant concentration monitor, or an oxygen monitor plus suitable mathematical equations from which the CO_2 concentration is derived, and an automated data acquisition and handling system and providing a permanent, continuous record of CO_2 emissions, in percent CO_2; and

(v) An oxygen monitoring system, consisting of an O_2 concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O_2 in percent O_2;

(C) The recertification provisions of this section shall apply to a monitoring system under subdivision (2)(A) of this subsection exempt from initial certification requirements under subparagraph (A) of this subdivision;

(D) If the Administrator has previously approved a petition under 40 CFR 75.72(b)(2)(ii), or 40 CFR 75.16(b)(2)(ii)(B) as pursuant to 40 CFR 75.13, for apportioning the CO_2

emission rate measured in a common stack or a petition under 40 CFR 75.66 of this chapter for an alternative requirement in 40 CFR 75, the CO_2 authorized account representative shall submit the petition to the commissioner under subdivision (7)(A) of this subsection to determine whether the Administrator's approval applies under this program;

(E) Except as provided in subparagraph (A) of this subdivision, the owner or operator of a CO_2 budget source shall comply with the following initial certification and recertification procedures for a continuous emission monitoring system and an excepted monitoring system under 40 CFR 75, Appendices D and E, and under subdivision (2)(A)(i) of this subsection. The owner or operator of a source that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR 75.19 or that qualifies to use an alternative monitoring system under 40 CFR 75, Subpart E, shall comply with the procedures in subparagraph (A) or (B)(iv) of this subdivision;

(F) Requirements for initial certification. The owner or operator shall ensure that each continuous emissions monitoring system required under subdivision (2)(A)(i) of this subsection completes all of the initial certification testing required under 40 CFR 75.20 by the applicable deadlines specified in subdivision (2)(B) of this subsection. In addition, whenever the owner or operator installs a monitoring system in order to meet the requirements of this subsection in a location where no such monitoring system was previously installed, initial certification in accordance with 40 CFR 75.20 is required;

(G) Requirements for recertification. Whenever the owner or operator makes a replacement, modification, or change in a certified continuous emission monitoring system under subdivision (2)(A)(i) of this subsection that the Administrator or the commissioner determines significantly affects the ability of the system to accurately measure or record CO_2 mass emissions or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or Appendix B to 40 CFR 75, the owner or operator shall recertify the monitoring system according to 40 CFR 75.20(b). Furthermore, whenever the owner or operator makes a replacement, modification or change to the flue gas handling system or the source's operation that the Administrator or the commissioner determines to significantly change the flow or concentration profile, the owner or operator shall recertify the continuous emissions monitoring system in accordance with 40 CFR 75.20(b). Examples of changes that require recertification include, but are not limited to: replacement of the analyzer, change in location or orientation of the sampling probe or site, or changing of flow rate monitor polynomial coefficients;

(H) Approval process for initial certifications and recertification.

(i) Notification of certification. The CO_2 authorized account representative shall submit to the commissioner a written notice of the dates of certification in accordance with subdivision (5) of this subsection;

(ii) Certification application. The CO_2 authorized account representative shall submit to the commissioner a certification application for each monitoring system. A complete certification application shall include the information specified in 40 CFR 75.63; and

(iii) Provisional certification data. The provisional certification date for a monitor shall

be determined in accordance with 40 CFR 75.20(a)(3). A provisionally certified monitor may be used under the CO_2 Budget Trading Program for a period not to exceed 120 days after receipt by the commissioner of the complete certification application for the monitoring system or component thereof under subparagraph (H)(ii) of this subdivision. Data measured and recorded by the provisionally certified monitoring system or component thereof, in accordance with the requirements of 40 CFR 75, shall be considered valid quality-assured data, provided that the permitting authority does not invalidate the provisional certification by issuing a notice of disapproval not later than 120 days after receipt of the complete certification application by the commissioner;

(I) Certification application approval process. The commissioner shall issue a written notice of approval or disapproval of the certification application to the owner or operator not later than 120 days after receipt of the complete certification application in accordance with subparagraph (H)(ii) of this subdivision. In the event the commissioner does not issue such a notice not later than such 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR 75 and is included in the certification application shall be deemed certified for use under the CO_2 Budget Trading Program.

(i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR 75, then the commissioner shall issue a written notice of approval of the certification application not later than 120 days after receipt of such complete application;

(ii) Incomplete application notice. If the certification application is not complete, then the commissioner shall issue a written notice of incompleteness and set a reasonable date by which the CO_2 authorized account representative shall submit the additional information required to complete the certification application. The commissioner may issue a notice of disapproval under subparagraph (I)(iii) of this subdivision if the CO_2 authorized account representative does not comply with the notice of incompleteness by the specified date. The 120 day review period shall not begin before receipt of a complete certification application;

(iii) Disapproval notice. If the certification application shows that any monitoring system or component thereof does not meet the performance requirements of 40 CFR 75, or if the certification application is incomplete and the requirement for disapproval under subparagraph (I)(ii) of this subdivision is met, then the commissioner shall issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification shall no longer be valid and the data measured and recorded by each uncertified monitoring system or component thereof shall not be considered valid quality assured data beginning with the date and hour of provisional certification. The owner or operator shall follow the procedures for loss of certification in subparagraph (J) of this subdivision for each monitoring system or component thereof, which is disapproved for initial certification; and

(iv) Audit decertification. The commissioner may issue a notice of disapproval of the certification status of a monitor in accordance with subdivision (4)(B) of this subsection;

(J) Procedures for loss of certification. If the commissioner issues a notice of disapproval

of a certification application under subparagraph (I)(iii) of this subdivision or a notice of disapproval of certification status under subparagraph (I)(iv) of this subdivision, then the owner or operator shall substitute the following values for each disapproved monitoring system, for each hour of source operation during the period of invalid data beginning with the date and hour of provisional certification and continuing until the time, date, and hour specified under 40 CFR 75.20(a)(5)(i) or 40 CFR 75.20(g)(7):

(i) For sources using or intending to monitor for CO_2 mass emissions using heat input or for sources using the low mass emission excepted methodology under 40 CFR 75.19, the maximum potential hourly heat input of the source; and

(ii) For sources intending to monitor for CO_2 mass emissions using a CO_2 pollutant concentration monitor and a flow monitor, the maximum potential concentration of CO_2 and the maximum potential flow rate of the source under 40 CFR 75, Appendix A section 2.1;

(K) For each disapproved monitoring system, the CO_2 authorized account representative shall submit a notification of certification retest dates and a new certification application in accordance with subparagraphs (H)(i) and (ii) of this subdivision; and the owner or operator shall repeat all certification tests or other requirements, as indicated in the commissioner's notice of disapproval, no later than thirty (30) source operating days after the date of issuance of the notice of disapproval;

(L) Initial certification and recertification procedures for low mass emission. The owner or operator of a source qualified to use the low mass emissions excepted methodology under subdivisions (2)(C)(iii) or (2)(C)(iv) of this subsection shall meet the applicable certification and recertification requirements of 40 CFR 75.19(a)(2), 40 CFR 75.20(h) and subdivision (3) of this subsection. If the owner or operator of such a source elects to certify a fuel flow meter system for heat input determinations, the owner or operator shall also meet the certification and recertification requirements of 40 CFR 75.20(g); and

(M) Certification and recertification procedures for alternative monitoring systems. The CO_2 authorized account of each source for which the owner or operator intends to use an alternative monitoring system approved by the commissioner under 40 CFR 75, Subpart E, shall apply for certification to the commissioner prior to use of the system under the CO_2 Budget Trading Program. The CO_2 authorized account representative shall apply for recertification following a replacement, modification or change according to the procedures in subparagraph (C) of this subdivision. The owner or operator of an alternative monitoring system shall comply with the notification and application requirements for certification according to the procedures specified in subparagraph (H) of this subdivision and 40 CFR 75.20(f).

(4) Out of control periods.

(A) Whenever any monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR 75, data shall be substituted using the applicable procedures in 40 CFR 75, Subpart D, Appendix D or E; and

(B) Audit decertification. Whenever both an audit of a monitoring system and a review

of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under subdivision (3) of this subsection or the applicable provisions of 40 CFR 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the commissioner shall issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this subparagraph, an audit shall be either a field audit or an audit of any information submitted to the commissioner. By issuing the notice of disapproval, the commissioner shall revoke prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the initial certification or recertification procedures set forth in subdivision (3) of this subsection for each disapproved monitoring system.

(5) Notifications. The CO_2 authorized account representative for a CO_2 budget source shall submit written notice to the commissioner in accordance with 40 CFR 75.61.

(6) Recordkeeping and reporting**.**

(A) General provisions. The CO_2 authorized account representative shall comply with all recordkeeping and reporting requirements in this section, the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the certification requirements of subsection (c)(1)(E) of this section;

(B) Monitoring plans. The owner or operator of a CO_2 budget source shall comply with requirements of 40 CFR 75.62;

(C) Certification applications. The CO_2 authorized account representative shall submit an application to the commissioner not later than 45 days after completing all initial certification or recertification tests required under subdivision (3) of this subsection including the information required under CFR 75.63 and 40 CFR 75.73 (c) and (e);

(D) Quarterly reports. The CO_2 authorized account representative shall report the CO_2 mass emission data for the CO_2 budget source, in an electronic format prescribed by the commissioner for each calendar quarter as follows:

(i) For a source that commences commercial operation before July 1, 2008, the calendar quarter covering January 1, 2009 to March 31, 2009, inclusive; or

(ii) For a source commencing commercial operation on or after July 1, 2008, the calendar quarter corresponding to, the earlier of the date of provisional certification or the applicable deadline for initial certification under subdivision (2)(B) of this subsection or, unless such quarter is the third or fourth quarter of 2008, in which case reporting shall commence in the quarter covering January 1, 2009 to March 31, 2009, inclusive;

(E) The CO_2 authorized account representative shall submit each quarterly report to the commissioner not later than thirty (30) days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40

CFR 75, Subpart H, and 40 CFR 75.64;

(F) For each CO_2 budget unit, or group of units using a common stack, quarterly reports shall include all of the data and information required in 40 CFR 75, Subpart G, except for the provisions concerning opacity, NOx and SO_2;

(G) Compliance certification. The CO_2 authorized account representative shall submit to the commissioner a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the source's emissions are correctly and fully monitored. The certification shall state that:

(i) The monitoring data submitted were recorded in accordance with the applicable requirements of this subsection and 40 CFR 75, including the quality assurance procedures and specifications;

(ii) For a source with add-on CO_2 emission controls and for all hours where data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emission controls were operating within the range of parameters listed in the quality assurance quality control program under 40 CFR 75, Appendix B and the substitute values do not systematically underestimate CO_2 emissions; and

(iii) The CO_2 concentration values substituted for missing data under 40 CFR 75, Subpart D do not systematically underestimate CO_2 emissions; and

(H) Alternative reporting. In lieu of reporting required data to the commissioner pursuant to subparagraphs (D) to (G), inclusive, of this subdivision, the CO_2 authorized account representative may report CO_2 mass emission data for the CO_2 budget source solely in an electronic format to the regional CO_2 Allowance Tracking System or any successor electronic reporting platform identified by the commissioner. Nothing in this subparagraph excuses the owner or operator of the CO_2 budget source from making and keeping the records required by subparagraphs (D) to (G), inclusive, of this subdivision, and such records shall be made available to the commissioner upon request.

(7) Petitions.

(A) Except as provided in subparagraph (B) of this subdivision, the CO_2 authorized account representative of a CO_2 budget unit that is subject to an acid rain emissions limitation may submit a petition to the Administrator under 40 CFR 75.66 and to the commissioner requesting approval to apply an alternative to any requirement of 40 CFR Part 75. The application of an alternative to any requirement of 40 CFR Part 75 shall be in accordance with this subsection only if the petition is approved in writing by the Administrator, and subsequently approved in writing by the commissioner;

(B) The CO_2 authorized account representative of a CO_2 budget unit that is subject to an acid rain emissions limitation may submit a petition to the Administrator under 40 CFR 75.66 and to the commissioner requesting approval to apply an alternative to a requirement concerning any additional CEMS required under the common stack provisions of 40 CFR 75.72 or a CO_2 concentration CEMS used under 40 CFR 75.71(a)(2). The application of an alternative to any such requirement shall be in accordance with this subsection only if the petition is approved in writing by the Administrator, and subsequently approved in writing

by the commissioner; and

(C) Petitions for a CO_2 budget unit that is not subject to an acid rain emissions limitation.

(i) The CO_2 authorized account representative of a CO_2 budget unit that is not subject to an acid rain emissions limitation may submit a petition to the Administrator under 40 CFR 75.66 and to the commissioner requesting approval to apply an alternative to any requirement of 40 CFR 75. The application of an alternative to any requirement of 40 CFR 75 shall be in accordance with this subsection only if the petition is approved in writing by the Administrator, and subsequently approved in writing by the commissioner; and

(ii) In the event that the Administrator declines to review a petition under clause (i) of this subparagraph, the CO_2 authorized account representative of a CO_2 budget unit that is not subject to an acid rain emissions limitation may submit a petition to the commissioner requesting approval to apply an alternative to any requirement of this subsection. That petition shall contain all of the relevant information specified in 40 CFR 75.66. The application of an alternative to any requirement of this subsection shall be in accordance with this subsection only if the petition is approved in writing by the commissioner;

(8) CO_2 budget units that co-fire eligible biomass.

(A) The CO_2 authorized account representative of a CO_2 budget unit that co-fires eligible biomass as a compliance mechanism under this subsection, shall report the following information to the commissioner for each calendar quarter:

(i) For each shipment of solid eligible biomass fuel fired at the CO_2 budget unit, the total eligible biomass fuel input, on an as-fired basis, in pounds;

(ii) For each shipment of solid eligible biomass fuel fired at the CO_2 budget unit, the moisture content, on an as-fired basis, as a fraction by weight;

(iii) For each distinct type of gaseous eligible biomass fuel fired at the CO_2 budget unit, the density of the biogas, on an as-fired basis, in pounds per standard cubic foot;

(iv) For each distinct type of gaseous eligible biomass fuel fired at the CO_2 budget unit, the moisture content of the biogas, as a fraction by total weight;

(v) For each distinct type of gaseous eligible biomass fuel fired at the CO_2 budget unit, the total eligible biomass fuel input, in standard cubic feet;

(vi) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit, the dry basis carbon content of the fuel type, as a fraction by dry weight;

(vii) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit, the dry basis higher heating value, in MMBtu per dry pound;

(viii) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit, the total dry basis eligible biomass fuel input, in pounds, calculated in accordance with subparagraph (B) of this subdivision;

(ix) The total amount of CO_2 emitted from the CO_2 budget unit due to firing eligible biomass fuel, in tons, calculated in accordance with subparagraph (C) of this subdivision;

(x) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit, the total eligible biomass fuel heat input, in MMBtu, calculated in accordance with subparagraph (D)(i) of this subdivision;

(xi) The total amount of heat input to the CO_2 budget unit due to firing eligible biomass fuel, in MMBtu, calculated in accordance with subparagraph (D)(ii) of this subdivision;

(xii) A description and documentation of monitoring technology employed, and a description and documentation of fuel sampling methodology employed, including sampling frequency; and

(xiii) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit, chemical analysis, including heating value and carbon content;

(B) An owner or operator of a CO_2 budget unit shall calculate and submit to the commissioner on a quarterly basis the total dry weight for each distinct type of eligible biomass fired by the CO_2 budget unit during the reporting quarter. The total dry weight shall be determined for each fuel type as follows:

(i) For solid fuel types:

$$F_j = \sum_{i=1}^{m} (1 - M_j) \times F_i$$

Where:

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j;

F_i = Eligible biomass as fired fuel input (lbs) for fired shipment i;

M_i = Moisture content (fraction) for fired shipment i;

i = Fired fuel shipment;

j = Fuel type; and

m = Number of shipments;

(ii) For gaseous fuel types:

$F_j = D_j \times V_j \times (1 - M_j)$

Where:

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j;

D_j = Density of biogas (lbs/scf) for fuel type j;

V_j = Total volume (scf) for fuel type j;

M_j = Moisture content (fraction) for fuel type j; and

j = Fuel type;

(C) CO_2 emissions due to firing of eligible biomass shall be determined as follows:

(i) For any full calendar quarter during which no fuel other than eligible biomass is combusted at the CO_2 budget unit, as measured and recorded in accordance with subdivisions (1) to (7), inclusive, of this subsection; or

(ii) For any full calendar quarter during which fuels other than eligible biomass are combusted at the CO_2 budget unit, as determined using the following equation:

$$CO_2 tons = \sum_{j=1}^{n} F_j \times C_j \times O_j \times 44 / 12 \times 0.0005$$

Where:

CO_2 tons = CO_2 emissions due to firing of eligible biomass for the reporting quarter;

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j, as calculated in subparagraph (B) of this subdivision;

C_j = Carbon fraction (dry basis) for fuel type j;

O_j = Oxidation factor for eligible biomass fuel type j, derived for solid fuels based on the ash content of the eligible biomass fired and the carbon content of this ash, as determined pursuant to subparagraph (A)(xii) of this subdivision; for gaseous eligible biomass fuels, a default oxidation factor of 0.995 may be used;

44/12 = Number of tons of carbon dioxide that are created when one ton of carbon is combusted (44/12);

0.0005 = Number of short tons which is equal to one pound;

j = Fuel type; and

n = Number of distinct fuel types;

(D) Heat input due to firing of eligible biomass for each quarter shall be determined as follows:

(i) For each distinct fuel type:

$H_j = F_j \times HHV_j$

Where:

H_j = Heat input (MMBtu) for fuel type j;

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j, as calculated in subparagraph (B) of this subdivision;

HHV_j = Higher heating value (MMBtu/lb), dry basis, for fuel type j, as determined through chemical analysis; and

j = Fuel type

(ii) For all fuel types:

$$Heat\ Input\ MMBtu = \sum_{j=1}^{n} H_j$$

Where:

H_j = Heat input (MMBtu) for fuel type j;

j = Fuel type; and,

n = Number of distinct fuel types

(E) Fuel sampling methods and fuel sampling technology shall be consistent with the New York State Renewable Portfolio Standard Biomass Guidebook, May 2006.

(9) Additional requirements to provide output data.

(A) Not later than March 1, 2009 and March 1 of each year thereafter, CO_2 budget sources shall submit to the commissioner electricity generation data, in MWhs, associated with operation of CO_2 budget units at the CO_2 budget sources. The following MWh data shall be included, if applicable:

(i) CO_2 budget sources that are required to submit generation data to the Regional ISO shall submit to the commissioner the same CO_2 budget unit-level MWh values submitted to the Regional ISO and a statement certifying that the MWh of electrical output reported reflects the total actual electrical output of the CO_2 budget units at the CO_2 budget source used by the Regional ISO to determine settlement resources of energy market participants;

(ii) CO_2 budget sources that report gross hourly MW data to the Administrator, shall submit to the commissioner an annual summation of the CO_2 budget unit-level gross output data submitted to the Administrator; and

(iii) CO_2 budget sources that do not submit generation data to the Regional ISO or to the Administrator shall submit to the commissioner net electrical output information in accordance with subparagraph (D) of this subdivision. A CO_2 budget source whose electrical output is not used in Regional ISO energy market settlement determinations shall propose to the commissioner a method for quantification of net electrical output;

(B) CO_2 budget sources creating useful thermal energy and selling steam shall use billing meters to determine net steam output. A CO_2 budget source whose steam output is not measured by billing meters or whose steam output is combined with output from a non-CO_2 budget source prior to measurement by the billing meter shall propose to the commissioner an alternative method for quantification of net steam output. If data for steam output is not available, the CO_2 budget source may report heat input providing useful steam output as a surrogate for steam output;

(C) Monitoring. Not later than March 1, 2009, CO_2 budget sources shall provide an output monitoring plan containing the elements described in subparagraphs (D) to (G), inclusive, of this subdivision;

(D) The output monitoring plan submitted by the CO_2 budget source pursuant to subparagraph (C) of this subdivision shall include a diagram of the electrical or steam system for which output is being monitored, specifically including:

(i) For net electric output, the diagram shall contain all CO_2 budget sources and all generators served by each CO_2 budget source and the relationship between CO_2 Budget sources and generators. If a generator served by a CO_2 budget source is also served by a non-affected source, the non-affected source and its relationship to each generator shall be indicated on the diagram as well. The diagram shall indicate where the net electric output is measured and shall include all electrical inputs and outputs to and from the plant. If net electric output is determined using a billing meter, the diagram shall show each billing meter used to determine net sales of electricity and shall show that all electricity measured at the point of sale is generated by the CO_2 budget sources; and

(ii) For net thermal output, the diagram shall include all steam or hot water coming into the net steam system, including steam from CO_2 budget sources and non-affected sources, and all exit points of steam or hot water from the net steam system. In addition, each input and output stream shall have an estimated temperature, pressure and phase indicator, and an enthalpy in Btu/lb. The diagram of the net steam system shall identify all useful loads, house loads, parasitic loads, any other steam loads and all boiler feed water returns. The

diagram shall represent all energy losses in the system as either usable or unusable losses. The diagram shall also indicate all flow meters, temperature or pressure sensors or other equipment used to calculate gross thermal output. If a sales agreement is used to determine net thermal output, the diagram shall show the monitoring equipment used to determine the sales of steam;

(E) The output monitoring plan submitted by the CO_2 budget source pursuant to subparagraph (C) of this subdivision shall include a description of each output monitoring system. The description of the output monitoring system shall include a written description of the output system and the equations used to calculate output. For net thermal output systems, descriptions and justifications of each useful load shall be included;

(F) The output monitoring plan submitted by the CO_2 budget source pursuant to subparagraph (C) of this subdivision shall include a detailed description of all quality assurance and quality control activities performed to maintain the output system in accordance with subparagraph (I) of this subdivision;

(G) The output monitoring plan submitted by the CO_2 budget source pursuant to subparagraph (C) of this subdivision shall include documentation supporting any output values to be used as a missing data value if there are periods of invalid output data. The missing data output value shall be either zero or an output value that is likely to be lower than a measured value and that is approved as part of the monitoring plan required under this section;

(H) Initial Certification. CO_2 authorized account representatives shall submit a certification statement stating that either the output monitoring system consists entirely of billing meters or that the output monitoring system meets one of the accuracy requirements for non-billing meters below. This statement may be submitted with the certification application required pursuant to subdivision (6)(C) of this subsection.

(i) Billing Meters. The billing meter shall record the electric or thermal output. Any electric or thermal output values that the facility reports shall be the same as the values used in billing for the output. Any output measurement equipment used as a billing meter in commercial transactions requires no additional certification or testing requirements;

(ii) Non-Billing Meters. For non-billing meters, the output monitoring system shall either meet an accuracy of ten (10) percent of the reference value, or each component monitor for the output system shall meet an accuracy of three (3) percent of the full scale value, whichever is less stringent, as determined pursuant to clause (iii) or (iv) of this subparagraph;

(iii) The system approach to accuracy shall include a determination of how the system accuracy of ten (10) percent is achieved using the individual components in the system and shall include data loggers and any watt meters used to calculate the final net electric output data or any flow meters for steam or condensate, temperature measurement devices, absolute pressure measurement devices and differential pressure devices used for measuring thermal energy; or

(iv) A component approach to accuracy. If testing a piece of output measurement equipment shows that the output readings are not accurate to three (3) percent or less of the

full scale, then the owner or operator of a CO_2 budget source shall retest or replace the measurement equipment to achieve such level of accuracy. Data shall be considered invalid, prospectively, for purposes of determining allocations. Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test;

(I) Ongoing quality assurance and quality control. Ongoing quality assurance and quality control activities shall be performed by the owner or operator of a CO_2 budget source in order to maintain the output system, which shall include the following:

(i) Billing Meters. In the case where billing meters are used to determine output, no quality assurance and quality control activities beyond those already performed are required;

(ii) Non-Billing Meters. Certain types of equipment such as potential transformers, current transformers, nozzle and venture type meters, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed. However, the pressure and temperature transmitters accompanying an orifice plate will require periodic retesting. For other types of equipment, the owner or operator of a CO_2 budget source shall either recalibrate or re-verify the meter accuracy at least once every two years, unless a consensus standard allows for less frequent calibrations or accuracy tests. The system approach to accuracy or a component approach to accuracy shall be in accordance with subparagraphs (H)(ii) to (H)(iv), inclusive, of this subdivision. If testing a piece of output measurement equipment shows that the output readings are not accurate to 3.0 percent or less of the full scale value, then the owner or operator of a CO_2 budget source shall retest or replace the measurement equipment to achieve such level of accuracy; and

(iii) Out of Control Periods. If testing a piece of output measurement equipment shows that the output readings are not accurate to the certification value, data remain valid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes an accuracy test. All invalid data shall be replaced by either zero output or an output value that is likely to be lower than a measured value and that is approved as part of the output monitoring plan under subparagraph (C) of this subdivision; and

(J) Recordkeeping and Reporting. The CO_2 authorized account representative shall comply with all recordkeeping and reporting requirements in this subparagraph and with the requirements of subsections (b)(5) and (c)(1)(E) of this section:

(i) Recordkeeping. The owner or operator of a CO_2 budget source shall retain data used to monitor, determine or calculate net generation for ten (10) years;

(ii) Annual output reports. Not later than March 1, 2009 and March 1 of each year thereafter, the CO_2 authorized account representative shall submit to the commissioner an annual output report containing until-level MWh data and all useful thermal output information not later than March 1 for the immediately preceding year; and

(iii) The annual report shall be certified as follows:

"I am authorized to make this submission on behalf of the owners and operators of the

CO_2 budget sources or CO_2 budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(j) **Ratepayer relief.**

(1) If proceeds generated by the auction of CO_2 allowances under subsection (f)(5) of this section in any calendar year exceed the threshold identified in subdivision (3) of this subsection, the commissioner shall return excess proceeds to the Public Utilities Regulatory Authority, in accordance with section 22a-200c of the Connecticut General Statutes, for return to Connecticut electric ratepayers, in accordance with section 16-19 of the Connecticut General Statutes.

(2) If the proceeds generated by the auction of CO_2 allowances under subsection (f)(5) of this section in any calendar year from the auction of CO_2 allowances does not exceed the threshold price identified in subdivision (3) of this subsection, the commissioner shall distribute such auction proceeds pursuant to the requirements set forth in subsection (f)(6) of this section.

(3) The amount of proceeds to be transferred to the Public Utilities Regulatory Authority shall be determined as follows:

$A_r = (A_p - P_t)$

Where:

A_r = Auction proceeds to be returned to Connecticut electric ratepayers;

A_p = Annual proceeds generated by the auction of CO_2 allowances under subsection (f)(5) of this section; and

P_t = the program threshold of thirty-five (35) million dollars, increased by two and one-half (2.5) percent on January 1, 2015 and January 1 of each year thereafter.

(k) **Severability.**

Each provision of this section is deemed severable, and in the event that any provision of this section is held to be invalid, the remainder of this section shall continue in full force and effect.

(Adopted effective July 23, 2008; Amended December 9, 2013; Amended October 4, 2019)

Sec. 22a-174-31a. Greenhouse gas emission offset projects

(a) **Definitions and abbreviations.** Except as otherwise provided, for the purposes of this section and section 22a-174-31 of the Regulations of Connecticut State Agencies:

(1) "Anaerobic digester" means a device that promotes the decomposition of organic material to simple organics and gaseous biogas products, usually accomplished by means of controlling temperature and volume, and including a methane recovery system.

(2) "Anaerobic digestion" means the degradation of organic material including manure brought about through the action of microorganisms in the absence of elemental oxygen.

(3) "Anaerobic storage" means the storage of organic material in an oxygen-free environment, or under oxygen-free conditions, including but not limited to, holding tanks, ponds, and lagoons.

(4) "ANSI" means the American National Standards Institute.

(5) "ASHRAE" means the American Society of Heating, Refrigerating and Air-Conditioner Engineers.

(6) "Biogas" means the gas, primarily methane and CO_2, resulting from the decomposition of organic matter under anaerobic conditions.

(7) "Building envelope" means the elements of a building, including walls, windows, foundation, basement slab, ceiling, roof and insulation, that separate conditioned space from unconditioned space, or that enclose semi-heated space, through which thermal energy may be transferred to or from the exterior, unconditioned space, or conditioned space.

(8) "Certification" means an independent third-party verification that a CO_2 emissions offset project application and all measurement, monitoring or verification associated therewith meets the requirements of this section.

(9) "CH_4" means methane.

(10) "CO_2 emissions offset project" means a project to reduce or avoid atmospheric loading of CO_2, CO_2e or sequestered carbon where such project yields reduced or avoided emissions that are real, additional, verifiable, enforceable and permanent.

(11) "CO_2e" means "carbon dioxide equivalent" as defined in section 22a-174-31 of the Regulations of Connecticut State Agencies.

(12) "Commercial building" means a non-residential building to which the provisions of ANSI/ASHRAE/IESNA Standard 90.1 apply.

(13) "Conflict of interest" means a situation under which an individual has a relationship with any specific project sponsor, CO_2 emissions offset project or category of offset projects, such that the individual's other activities or relationships with other persons or organizations render or may render the individual incapable of providing an impartial certification opinion, or otherwise compromise the individual's objectivity in performing certification functions.

(14) "Condensing mode" means the design and operation of furnaces or boilers in a mode that leads to the production of condensate in flue gases.

(15) "Cooperating regulatory agency" means a regulatory agency in a state or United States jurisdiction that is not a participating state that has entered into a memorandum of understanding with the commissioner and the appropriate regulatory agencies of all participating states to carry out certain obligations relative to CO_2 emissions offset projects in that state or United States jurisdiction, including but not limited to, the obligation to perform audits of offset project sites, and report noncompliance with this section.

(16) "Energy conservation measure" ("ECM") or "energy efficiency measure" ("EEM") means an activity or a set of activities designed to increase the energy efficiency of a building or improve the management of energy demand and may include, but not be limited

to, physical changes to facility equipment, modifications to a building, revisions to operating and maintenance procedures, software changes, or new means of training or managing users of the building or operations and maintenance staff.

(17) "Energy performance" means a measure of the relative energy efficiency of a building, building equipment, or building components, as measured by the amount of energy required to provide building services and for building equipment and components, means a relative measure of the impact of equipment or components on building energy usage.

(18) "Energy services" means the provision of useful services to building occupants, such as heating and hot water, cooling, and lighting.

(19) "Forested condition" means land that is at least 1.0 acre in size and 120.0 feet wide measured stem-to-stem from the outer-most edge with forested strips that are at least 120.0 feet wide for a continuous length of at least 363.0 feet, and meets one of the following stocking criteria:

(A) The condition is at least 10-percent stocked by trees of any size or has been at least 10-percent stocked in the past, and the condition is not subject to non-forest use that prevent normal tree regeneration and succession such as regular mowing, intensive grazing, or recreation activities; or

(B) In several western woodland species where stocking cannot be determined, the condition has at least 5-percent crown cover by trees of any size, or has had at least 5-percent cover in the past, and the condition is not subject to non-forest use that prevents normal regeneration and succession such as regular mowing, chaining, or recreation activities.

(20) "Furnace" means a self-contained, indirect-fired appliance with a heat input rate of less than 225,000 Btu/hr that supplies heated air to a residential or commercial building through ducts to conditioned spaces.

(21) "HVAC system" means a system or systems that provide, either collectively or individually, heating, ventilation, or air conditioning to a building, including the equipment, distribution network, and terminals.

(22) "IESNA" means the Illuminating Engineering Society of North America.

(23) (23) "Independent verifier" means an individual who has been approved by the commissioner or the commissioner's designee to conduct verification activities.

(24) "Market penetration rate" means a measure of the diffusion of a technology, product, or practice in a defined market, as represented by the percentage of annual sales for a product or practice, as a percentage of the existing installed stock for a product or category of products, or as the percentage of existing installed stock that utilizes a practice.

(25) "Non-census water" means streams, sloughs, estuaries, and canals that are more than 120 feet and less than 1/8 of a mile wide and lakes, reservoirs, and ponds that are 1 to 40 acres in size.

(26) "Non-forested condition" means land that does not meet the definition of "forested condition" and any land that includes areas used for crops, improved pasture, residential areas, city parks, improved roads of any width and adjoining rights-of-way, power line

clearings of any width, and non-census water. If intermingled in forested areas, unimproved roads and non-forest strips are more than 120.0 feet wide, and clearings more than one acre in size, to qualify as non-forest land.

(27) "Offset project" means all equipment, materials, items, or actions directly related to the reduction of CO_2 equivalent emissions or the sequestration of carbon specified in a consistency application submitted pursuant to this section.

(28) "On-site combustion" means the combustion of fossil fuel at a building to provide building services, such as heating, hot water, or electricity.

(29) "Passive solar" means a combination of building design features and building components that utilize solar energy to reduce or eliminate the need for mechanical heating and cooling and daytime artificial lighting.

(30) "Permanently retired" means a greenhouse gas allowance or credit has been placed in a retirement account controlled by the jurisdiction that generated the allowance or credit, or has been placed in an allowance retirement account controlled by the commissioner or is otherwise determined by the commissioner to be rendered unusable.

(31) "Project commencement" means the date on which physical construction, installation of equipment or materials or other work at an offset project site began; or the date on which a management activity or protocol is first utilized for an offset project.

(32) "Project sponsor" means any person who owns or operates an eligible CO_2 emission offset project or who owns a CO_2 emissions credit retirement.

(33) "Regional-type anaerobic digester" means an anaerobic digester using feedstock from more than one agricultural operation, or importing feedstock from more than one agricultural operation.

(34) "Renewable portfolio standard" means the statutory requirement that a load-serving entity provide a certain portion of the electricity it supplies to its customers from renewable energy sources pursuant to section 16-245a of the Connecticut General Statute or any other statute or regulation requiring a certain portion of electricity supplied to the electricity grid be generated from renewable energy sources.

(35) "Residential building" means a low-rise structure used as a single family home, a multifamily home of three or fewer stories above grade, or a modular or mobile manufactured home for which the provisions of ANSI/ASHRAE/IESNA Standard 90.1 do not apply.

(36) "RESNET" means the Residential Energy Services Network, a not-for-profit corporation that establishes nationally recognized standards for building energy efficiency rating systems.

(37) "SF_6" means sulfur hexafluoride.

(38) "SF_6-containing operating equipment" means any equipment used for the transmission or distribution of electricity that contains SF_6.

(39) "System benefit fund" means the monies collected directly from retail electricity or natural gas ratepayers pursuant to section 16-245*l* of the Connecticut General Statutes or the statutes and regulations of other states.

(40) "Total solids" means the total of all solids in a sample, including total suspended solids, total dissolved solids, and volatile suspended solids.

(41) "Transmission or distribution entity" means the assets and equipment used to transmit and distribute electricity from an electric generator to the electrical load of a customer, including all related assets and equipment located within the service territory of the entity, defined as the service territory of a load-serving entity specified by the Connecticut Department of Public Utility Control.

(42) "Verification" means the determination by an independent verifier that certain parts of a CO_2 emissions offset project consistency application or measurement, monitoring and verification report conform to the requirements of this section.

(43) "Volatile solids" means the fraction of total solids that is comprised primarily of organic matter.

(44) "Whole-building energy performance" means the overall energy performance of a building, taking into account the integrated impact on energy usage of all building components and systems.

(45) "Whole-building retrofit" means any building project that involves the replacement of more than one building system, or set of building components, and also requires a building permit.

(46) "Zero net energy building" means a building designed to produce as much energy, using renewable energy sources, as the building is projected to use, as measured on an annual basis.

(b) **Applicability and General Requirements.**

(1) This section applies to the sponsor of any CO_2 emissions offset project undertaken to create CO_2 offset allowances for sale or use in the state of Connecticut in accordance with the requirements of section 22a-174-31 of the Regulations of Connecticut State Agencies or in any other participating state.

(2) Copies of documents incorporated by reference into this section are available by contacting:

Connecticut Department of Environmental Protection
Bureau of Air Management
79 Elm Street
Hartford, Connecticut 06106
(860) 424-3027

(c) **General Requirements for CO_2Emissions Offset Projects.**

(1) The commissioner or commissioner's designee may award CO_2 offset allowances to sponsors of CO_2 emissions offset projects or CO_2 emissions credit retirements that have reduced or avoided atmospheric loading of CO_2 or CO_2 equivalent or sequestered carbon as demonstrated in accordance with the applicable provisions of this section provided that such projects represent CO_2 or CO_2 equivalent reductions or carbon sequestration that are real, additional, verifiable, enforceable, and permanent. The use of such offset allowances for compliance purposes shall be subject to the provisions of section 22a-174-31 of the

Regulations of Connecticut State Agencies.

(2) Eligible CO_2 emissions offset projects. Offset projects shall satisfy all the applicable requirements of this section to qualify for the award of CO_2 offset allowances. As identified in subsections (d) to (h), inclusive, of this section, projects that either capture and destroy landfill methane, avoid sulfur hexafluoride emissions, sequester carbon through afforestation, provide end-use energy efficiency, or avoid methane emissions from agricultural management operations are eligible for the award of CO_2 offset allowances.

(3) Eligible offset project locations. Eligible offset projects may be located in any participating state or in any state or other U.S. jurisdiction that has entered into a memorandum of understanding with the commissioner and the appropriate regulatory agencies of all participating states to carry out certain obligations relative to CO_2 emissions offset projects in such state or U.S. jurisdiction, including but not limited to the obligation to perform audits of offset project sites, and report violations of this section to the commissioner or the commissioner's designee.

(4) Eligible CO_2 emissions credit retirements. A CO_2 emissions credit retirement shall satisfy all the applicable requirements of this section, to qualify for the award of CO_2 offset allowances. CO_2 emissions credit retirements include the permanent retirement of greenhouse gas allowances or credits issued pursuant to any governmental mandatory carbon constraining program outside the United States that places a specific tonnage limit on greenhouse gas emissions, provided the allowances or credits are acceptable and valid for use in that program at the time the consistency application is filed pursuant to this subsection, or certified greenhouse gas emissions reductions credits issued pursuant to the United Nations Framework Convention on Climate Change (UNFCCC) or protocols adopted through the UNFCCC process. The commissioner or the commissioner's designee may award CO_2 offset allowances for CO_2 emissions credit retirements only after the occurrence of a Stage Two Trigger Event.

(5) General Requirements. In addition to the requirements set forth in subsections (d) to (h), inclusive, of this section, the following general requirements shall apply to each offset project:

(A) CO_2 offset allowances shall not be awarded for an offset project or CO_2 emissions credit retirement that is required pursuant to any local, state or federal law, regulation, or administrative or judicial order. If an offset project receives a consistency determination under this subsection and is later required by local, state or federal law, regulation, or administrative or judicial order, then the offset project shall only remain eligible for the award of CO_2 offset allowances until the end of its current allocation period;

(B) If an offset project includes an electric generation component, the project sponsor shall transfer to the commissioner or the commissioner's designee the legal rights to all attribute credits generated from the operation of the offset project, other than CO_2 offset allowances issued under this subsection, that may be used for compliance with a renewable portfolio standard or other regulatory requirement;

(C) Offset projects may not receive funding or other incentives from any systems benefit

fund, or funds or other incentives provided through the auction reserves described in section 22a-174-31(f)(5)(B) to (D), inclusive, of the Regulations of Connecticut State Agencies; and

(D) CO_2 offset allowances shall not be awarded to an offset project or CO_2 emissions credit retirement that is awarded credits or allowances under any other mandatory or voluntary greenhouse gas program, by another participating state, or by any other carbon market.

(6) Maximum allocation periods for CO_2 emissions offset projects. The commissioner or the commissioner's designee may award CO_2 offset allowances under this section as follows:

(A) Maximum allocation periods. Except as provided in subparagraph (B) of this subdivision, the commissioner or the commissioner's designee shall award CO_2 offset allowances under this section for any offset project for an allocation period not to exceed ten years. At the end of the initial 10-year allocation period and upon a demonstration by the project sponsor that the offset project continues to meet all applicable requirements of this section, the commissioner or the commissioner's designee may award CO_2offset allowances for a second 10-year allocation period. Prior to the expiration of the initial allocation period, the offset project sponsor shall submit a consistency application pursuant to this section and receive a consistency determination from the commissioner or the commissioner's designee; and

(B) Maximum afforestation allocation period. The commissioner or the commissioner's designee may award CO_2 offset allowances under this subsection for any afforestation offset project for an initial 20-year allocation period. At the end of the initial 20-year allocation period the commissioner or the commissioner's designee may award CO_2 offset allowances for a second 20-year allocation period, provided the offset sponsor has submitted a consistency application for the afforestation offset project prior to the expiration of the initial allocation period, and the commissioner or the commissioner's designee has issued a consistency determination pursuant to this subsection. At the end of the second 20-year allocation period, the commissioner or the commissioner's designee may award CO_2 offset allowances for a third 20-year allocation period, provided the offset sponsor has submitted a consistency application for the afforestation offset project prior to the expiration of the second allocation period, and the commissioner or the commissioner's designee has issued a consistency determination pursuant to this subsection. In no event shall an afforestation offset project be awarded CO_2 offset allowances for more than a total of 60 allocation years.

(7) Timing of offset projects. The commissioner or the commissioner's designee may award CO_2 offset allowances under this section only for offset projects that commenced on or after December 20, 2005.

(8) Offset project audit. Project sponsors shall provide the commissioner or the commissioner's designee access to the physical location of the offset project in order to determine compliance with this section.

(9) Ineligibility due to noncompliance. If at any time the commissioner or the

commissioner's designee determines that a project sponsor has not complied with the requirements of this section, the commissioner or the commissioner's designee may revoke and retire any and all offset allowances in the project sponsor's general account. If at any time the commissioner or the commissioner's designee determines that an offset project does not comply with the requirements of this section, the commissioner or the commissioner's designee may revoke any prior approvals issued in relation to an offset project.

(10) Application Process. Any person may act as the sponsor of an eligible CO_2 emissions offset project or CO_2 emissions credit retirement, provided that such person meets the requirements of this subdivision as follows:

(A) Establishment of general account. The sponsor of an offset project or CO_2 emissions credit retirement shall establish a general account under section 22a-174-31(g)(2)(B) of the Regulations of Connecticut State Agencies. All submissions to the commissioner required for the award of CO_2 offset allowances under this subsection shall be from the CO_2 authorized account representative for the general account of the sponsor of the relevant offset project or CO_2 emissions credit retirement;

(B) Consistency application time frames.

(i) For offset projects commenced prior to January 1, 2009, the project sponsor shall submit the consistency application no later than June 30, 2009;

(ii) For offset projects commenced on or after January 1, 2009, the project sponsor shall submit the consistency application no later than the date that is six months after the offset project is commenced; and

(iii) The commissioner or the commissioner's designee shall deny any application that fails to meet the time frames specified in this subparagraph;

(C) Consistency application contents. The sponsor of an offset project shall provide the following information to the commissioner or the commissioner's designee:

(i) The offset project sponsor's name, address, e-mail address, telephone number, facsimile transmission number, and account number;

(ii) The offset project description as required by the relevant provisions of subsection (d) to (h), inclusive, of this section;

(iii) The emissions baseline determination as required by relevant provisions of subsection (d) to (h), inclusive, of this section;

(iv) An explanation of how the projected reduction or avoidance of atmospheric loading of CO_2 or CO_2 equivalent or the sequestration of carbon is to be quantified, monitored and verified as required by the relevant provisions of subsection (d) to (h), inclusive, of this section;

(v) A completed application agreement that reads as follows: "The undersigned project sponsor recognizes and accepts that the application for, and the receipt of, CO_2 offset allowances under the CO_2 Budget Trading Program is predicated on the project sponsor following all the requirements of section 22a-174-31a of the Regulations of Connecticut State Agencies. The project sponsor holds the legal rights to the offset project, or has been

granted the right to act on behalf of a party that holds the legal rights to the offset project. I understand that eligibility for the award of offset allowances under section 22a-174-31a of the Regulations of Connecticut State Agencies is contingent on meeting the requirements of said section. I authorize the commissioner or the commissioner's designee to audit this offset project for purposes of verifying that the project, including the monitoring and verification plan, has been implemented as described in this application. I understand that this right to audit shall include the right to enter the physical location of the offset project. I submit to the legal jurisdiction of the State of Connecticut.";

(vi) A statement and certification report signed by the offset project sponsor certifying that all offset projects for which the sponsor has received offset allowances under this section or similar provisions in the rules of other participating states, under the sponsor's ownership or control or under the ownership or control of any entity which controls, is controlled by, or has common control with the sponsor are in compliance with all applicable requirements of the CO_2 Budget Trading Program in all participating states;

(vii) A statement and certification report drafted and signed by an independent verifier, accredited pursuant to this section, indicating that the independent verifier has reviewed the entire application and evaluated the adequacy and validity of the following information in relation to the applicable requirements of this section: the demonstration that the offset project meets the applicable eligibility requirements of this section; baseline emissions in accordance with this section; the monitoring and verification plan submitted in accordance with this section; and such other statements as may be required by commissioner or the commissioner's designee;

(viii) Disclosure of any voluntary or mandatory programs, other than the CO_2 Budget Trading Program, to which greenhouse gas emissions data related to the offset project has been, or will be, reported;

(ix) For offset projects located in a state or United States jurisdiction that is not a participating state, a demonstration that the project sponsor has complied with all requirements of the cooperating regulatory agency in the state where the offset project is located; and

(x) Any other information the commissioner or the commissioner's designee may require in order to evaluate the proposed offset project; and

(D) CO_2 emissions offset credit retirements. For a CO_2 emissions credit retirement, the consistency application shall include sufficient information to demonstrate that the CO_2 emissions credit is eligible pursuant to this section, was lawfully held by the project sponsor, and has been permanently and irrevocably retired.

(11) Place for filing.

(A) For an offset project located in one participating state in whole or in part, the consistency application shall be filed with the appropriate commissioner in such State;

(B) For an offset project located wholly outside all participating states, the consistency application may be filed with the appropriate commissioner in any one participating state. In addition, a copy of the consistency application shall be filed with the cooperating

regulatory agency in the state or United States jurisdiction where the offset project is located;

(C) For an offset project located in more than one participating state, the consistency application shall be filed in the participating state where the larger part of the emissions reduction or carbon sequestration due to the offset project activity is projected to occur; and

(D) For CO_2 emissions credit retirements, the consistency application may be filed with the appropriate commissioner in any one participating state.

(12) Commissioner action on consistency applications.

(A) Completeness determination. Not later than 30 days following receipt of the application filed pursuant to subdivision (9)(B) of this subsection, the commissioner or the commissioner's designee shall notify the project sponsor whether the consistency application is complete. A complete consistency application is one that is in an approved form and is determined by the commissioner or the commissioner's designee to be complete for the purpose of commencing review of the application. In no event shall a completeness determination prevent the commissioner or the commissioner's designee from requesting additional information in order to fully evaluate the proposed project in accordance with subparagraph (B) of this subdivision; and

(B) Consistency determination. Not later than 150 days of making the completeness determination under subparagraph (A) of this subdivision, the commissioner or the commissioner's designee shall issue a determination as to whether the offset project has met the requirements of this section and the requirements of the applicable offset project standard of subsection (d), (e), (f), (g) or (h) of this section. For any application found to lack consistency with these requirements, the commissioner or the commissioner's designee shall inform the project sponsor of the offset project's deficiencies.

(d) **Landfill Methane (CH_4) Capture and Destruction**

(1) Eligibility. An offset project that captures and destroys methane from landfills shall meet the requirements of this subsection and all applicable requirements of this section, to qualify for the award of CO_2 offset allowances. In addition, eligible offset projects shall meet the following requirements:

(A) The offset project may only occur at a landfill that is not subject to the New Source Performance Standards for municipal solid waste landfills pursuant to 40 CFR 60, Subpart CC and Subpart WWW; and

(B) Offset project description. The project sponsor shall provide a detailed narrative of the offset project action or actions to be taken, including supporting materials as appropriate. The project narrative shall include the following:

(i) The name or names and addresses of the owner and operator of the offset project;

(ii) Location and specifications of the landfill where the offset project is proposed to occur, including waste in place;

(iii) The name or names and addresses of the owner and operator of the landfill where the offset project is proposed to occur; and

(iv) Specifications of the equipment to be installed and a technical schematic of the offset project.

(2) Emissions baseline determination. The emissions baseline shall represent the potential fugitive landfill emissions, in tons of CO_2e, of the methane (CH_4) collected and metered for thermal destruction as part of the offset project. Baseline CH_4 fugitive emissions shall be calculated as follows:

Emissions (tons CO_2e) = (V × M × (1-OX) × GWP)/2000

Where:

V = Volume of CH_4 collected (ft^3);

M = Mass of CH_4 per cubic foot (0.04246 lbs/ft^3 default value at 1 atmosphere and 20°C);

OX = Oxidation factor (0.10), representing estimated portion of collected CH_4 that would have eventually oxidized to CO_2 if not collected; and

GWP = CO_2e global warming potential of CH_4 (23).

(3) Calculating emissions reductions. Emissions reductions shall be determined based on the difference between potential fugitive CH_4 emissions that would have occurred if metered CH_4 collected from the landfill for thermal destruction as part of the offset project was not collected and destroyed. CO_2e emissions reductions shall be calculated as follows:

Emissions Reductions (tons CO_2e) = (V × M × (1 - OX) × C_{ef} × GWP)/2000

Where:

V = Volume of CH_4 collected (ft^3);

M = Mass of CH_4 per cubic foot (0.04246 lbs/ft^3 default value at 1 atmosphere and 20° C);

OX = Oxidation factor (0.10), representing estimated portion of collected CH_4 that would have eventually oxidized to CO_2 if not collected;

C_{ef} = Combustion efficiency of methane control technology (0.98); and

GWP = CO_2e global warming potential of CH_4 (23).

(4) Monitoring and verification requirements. Offset projects shall employ a landfill gas collection system that provides continuous metering and data computation of landfill gas volumetric flow rate and CH_4 concentration. Annual monitoring and verification reports required pursuant to subsection (j) of this section shall include monthly volumetric flow rate and CH_4 concentration data, including documentation that the CH_4 was actually supplied to the combustion source. The project sponsor shall also:

(A) Submit a monitoring and verification plan as part of the consistency application that includes a quality assurance and quality control program associated with equipment used to determine landfill gas volumetric flow rate and CH_4 composition. The monitoring and verification plan shall include provisions for ensuring that measuring and monitoring equipment is maintained, operated and calibrated based on manufacturer recommendations, as well as provisions for the retention of maintenance records for audit purposes. The monitoring and verification plan shall be certified by an independent verifier accredited pursuant to subsection (i) of this section; and

(B) Annually verify landfill gas CH_4 composition through landfill gas sampling and third party laboratory analysis using applicable U.S. Environmental Protection Agency laboratory test methods.

(e) **Reduction in emissions of sulfur hexafluoride (SF_6).**

(1) Eligibility. Offset projects that prevent emissions of sulfur hexafluoride to the atmosphere from equipment in the electricity transmission and distribution sector, through capture and storage, recycling, or destruction, shall meet the requirements of this subsection and all applicable requirements of this section, to qualify for the award of CO_2 offset allowances.

(A) Eligible offset projects shall consist of the incremental actions to be taken, beyond current actions, to achieve a reduction in emissions of SF_6 beyond the transmission and distribution entity's emissions in the baseline reporting year. The identified actions to be taken shall be consistent with the guidance provided in International Electrotechnical Commission (IEC) 1634, and "High-voltage switchgear and control gear – Use and handling of sulfur hexafluoride (SF_6) in high-voltage switchgear and control gear," (CEI/IEC 1634, 1995-04);

(B) Except as provided in subparagraph (C) of this subdivision, eligible offset projects shall take place where the SF_6 entity-wide emissions rate for the baseline year is less than the applicable emissions rate in Table 31a-1B. The entity-wide SF_6 emissions rate shall be calculated as follows:

SF_6 Emissions Rate (%) = (Total SF_6 Emissions for Reporting Year)/ (Total SF_6 Nameplate Capacity at End of Reporting Year)

Where:

SF_6Nameplate Capacity refers to all SF_6-containing operating equipment owned or operated by the entity, at full and proper SF_6 charge of the equipment rather than the actual charge of the equipment, which may reflect leakage.

Table 31a-1A and B SF_6 Emissions Rate Performance Standards

Table 31a-1A. Emission Regions

Region A	Region B	Region C	Region D	Region E
Connecticut	Alabama	Colorado	Arkansas	Alaska
Delaware	District of Columbia	Illinois	Iowa	Arizona
Maine	Florida	Indiana	Kansas	California
Massachusetts	Georgia	Michigan	Louisiana	Hawaii
New Jersey	Kentucky	Minnesota	Missouri	Idaho
New York	Maryland	Montana	Nebraska	Nevada
New Hampshire	Mississippi	North Dakota	New Mexico	Oregon
Pennsylvania	North Carolina	Ohio	Oklahoma	Washington
Rhode Island	South Carolina	South Dakota	Texas	
Vermont	Tennessee	Utah		
	Virginia	Wisconsin		

	West Virginia	Wyoming		

Table 31a-1B. Emissions Rate Performance Standards

Region	Emission Rate[a]
Region A	9.68%
Region B	5.22%
Region C	9.68%
Region D	5.77%
Region E	3.65%
U.S. (National)	9.68%
[a] Based on weighted average 2004 emissions rates for U.S. EPA SF_6 Partnership utilities in each region. If the weighted average emissions rate in a region is higher than the national weighted average, the default performance standard is the national weighted average emissions rate;	

(C) An SF_6 offset project located at a transmission or distribution entity serving a predominantly urban service territory shall be eligible even if the entity does not meet the emissions rate requirement of subparagraph (B) Table 31a- 1B of this subdivision, provided the project sponsor demonstrates and the commissioner or the commissioner's designee determines that two or more of the following factors functionally impede management of SF_6 and prevent such entities from meeting the entity-wide emissions rate requirement:

(i) The entity is comprised of older than average installed transmission and distribution equipment in relation to the national average age of equipment;

(ii) A majority of the entity's electricity load is served by equipment that is located underground, and poor accessibility of such underground equipment precludes management of SF_6 emissions through regular ongoing maintenance;

(iii) The inability of the entity to take a substantial portion of equipment out of service, as such activity would jeopardize system reliability as set forth in applicable regulatory criteria documents; and

(iv) Required equipment purpose or design for a substantial portion of entity transmission and distribution equipment results in inherently leak-prone equipment.

(2) Offset project description. The offset project sponsor shall provide a detailed narrative of the offset project actions to be taken, including supporting materials as appropriate. The offset project narrative shall include the following:

(A) A description of the transmission or distribution entity specifying the service territory served by the entity; and

(B) The owner and operator of the transmission or distribution entity.

(3) Emissions baseline determination. Baseline SF_6 emissions shall be determined based on annual entity-wide reporting of SF_6 emissions for the calendar year immediately preceding the calendar year in which the consistency application is filed and such calendar

year shall be designated as the baseline year. If the consistency application is filed prior to 2009, the baseline year may be 2005, but no earlier. The reporting entity shall systematically track and account for all entity-wide uses of SF_6 in order to determine entity-wide emissions of SF_6. The scope of such tracking and accounting shall include all electric transmission and distribution assets and all SF_6-containing and SF_6-handling equipment owned or operated by the reporting entity.

(A) Emissions shall be determined based on the following mass balance method: SF_6 Emissions (lbs.) = (SF_6 Change in Inventory) + (SF_6 Purchases and Acquisitions) – (SF_6 Sales and Disbursements) – (Change in Total SF_6 Nameplate Capacity of Equipment)

Where:

Change in Inventory means the difference between the quantity of SF_6 gas in storage at the beginning of the reporting year and the quantity in storage at the end of the reporting year. The change in inventory will be negative if the quantity of SF_6 gas in storage increases over the course of the year;

Quantity in Storage means all SF_6 gas contained in cylinders, including 115-pound storage cylinders, gas carts, and other storage containers. This term does not refer to SF_6 gas held in SF_6-containing operating equipment;

Purchases and Acquisitions of SF_6 means the sum of all the SF_6 gas acquired from other parties during the reporting year, as contained in storage containers or SF_6-containing operating equipment;

Sales and Disbursements of SF_6 means the sum of all the SF_6 gas sold or otherwise disbursed to other parties during the reporting year, as contained in storage containers and SF_6-containing operating equipment; and

Change in Total SF_6Nameplate Capacity of Equipment means the net change in the total volume of SF_6-containing operating equipment during the reporting year. The net change in nameplate capacity is equal to new equipment nameplate capacity, minus retired nameplate capacity. This quantity will be negative if the retired equipment has a total nameplate capacity larger than the total nameplate capacity of the new equipment. "Total nameplate capacity" refers to the full and proper SF_6 charge of the equipment rather than to the actual charge, which may reflect leakage;

(B) Emissions shall be calculated as follows:

Emissions (tons CO_2e) = $[(V_{iby} – V_{iey}) + (PA_{psd} + PA_e + PA_{rre}) – (SD_{op} + SD_{rs} + SD_{df} + SD_{sor}) – (CNP_{ne} – CNP_{rse})] \times GWP/2000$

Where (all SF_6 values in lbs):

V_{iby} = SF_6 inventory in cylinders, gas carts, and other storage containers (not SF_6–containing operating equipment) at the beginning of the reporting year;

V_{iey} = SF_6 inventory in cylinders, gas carts, and other storage containers (not SF_6–containing operating equipment) at the end of the reporting year;

PA_{psd} = SF_6 purchased from suppliers or distributors in cylinders;

PA_e = SF_6 provided by equipment manufacturers with or inside equipment;

PA_{rre} = SF_6 returned to the reporting entity after off-site recycling;

SD_{op} = Sales of SF_6 to other parties, including gas left in equipment that is sold;

SD_{rs} = Returns of SF_6 to supplier, producer or distributor;

SD_{df} = SF_6 sent to destruction facilities;

SD_{sor} = SF_6 sent off-site for recycling;

CNP_{ne} = Total SF_6 nameplate capacity of new equipment at proper full charge;

CNP_{rse} = Total SF_6 nameplate capacity of retired or sold equipment at proper full charge; and

GWP = CO_2e global warming potential of SF_6 (22,200); and

(C) As part of the project consistency application required pursuant to subsection (c) of this section and in annual monitoring and verification reports required pursuant to subsection (j) of this section, the project sponsor shall provide the documentation required at subdivision (5)(A) to (C), inclusive, of this subsection to support emissions calculations.

(4) Calculating emissions reductions. Emissions reductions shall represent the annual entity-wide avoided fugitive emissions of SF_6 for the reporting entity. Emissions reductions shall be determined as follows using the quantification method outlined in subdivision (3)(B) of this subsection to determine emissions in both the baseline year and reporting years:

Emissions Reduction (short tons CO_2e) = (Total Pounds of SF_6 Emissions in Baseline Reporting Year) – (Total Pounds of SF_6 Emissions in Reporting Year) x GWP/2000

Where:

GWP = CO_2e global warming potential of SF_6 (22,200).

(5) Annual monitoring and verification requirements. The annual monitoring and verification report shall include supporting material detailing the calculations and data used to determine SF_6 emissions reductions and the project sponsor shall also provide the following documentation:

(A) An identification of all facilities managed by the entity from which all SF_6 gas is procured and disbursed and maintain an entity-wide log of all SF_6 gas procurements and disbursals. The entity-wide log shall include the weight of each cylinder transported before shipment from the facilities and the weight of each cylinder after return to the facilities. A specific cylinder log shall also be maintained for each cylinder that is used to fill equipment with SF_6 or reclaim SF_6 from equipment. The cylinder log shall be retained with the cylinder and indicate the location and specific identifying information of the equipment being filled, or from which SF_6 is reclaimed, and the weight of the cylinder before and after this activity. The cylinder log shall be returned with the cylinder to the facility when the activity is complete or the cylinder is empty;

(B) A current entity-wide inventory of all SF_6-containing operating equipment and all other SF_6-related items, including cylinders, gas carts, and other storage containers used by the entity. The inventory shall be certified by an independent verifier accredited pursuant to subsection (i) of this section; and

(C) A monitoring and verification plan as part of the consistency application, which shall include an SF_6 inventory management and auditing protocol and a process for quality

assurance and quality control of inventory data. The monitoring and verification plan shall be certified by an independent verifier accredited pursuant to subsection (i) of this section.

(f) **Sequestration of Carbon Due To Afforestation.**

(1) Eligibility. Offset projects that result in the conversion of land from a non-forested to forested state shall meet the requirements in this subsection and all applicable requirements of this section, to qualify for the award of CO_2 offset allowances.

(A) Eligible offset projects have been in a non-forested state for at least the ten (10) years preceding the commencement of the offset project; and

(B) Eligible offset projects shall be managed in accordance with widely accepted environmentally sustainable forestry practices and designed to promote the restoration of native forests by using mainly native species and avoiding the introduction of invasive non-native species. If commercial timber harvest activities are to occur, certification shall be obtained, prior to any harvest activities at the site, through the Forest Stewardship Council (FSC), Sustainable Forestry Institute (SFI), American Tree Farm System (ATFS), or such other similar organizations as may be approved by the commissioner or the commissioner's designee.

(2) Offset project description. The project sponsor shall provide a detailed narrative of the offset project actions to be taken, including supporting materials as appropriate. The offset project narrative shall include the following:

(A) The name or names and addresses of the owner of the land within the offset project boundary;

(B) A detailed map of the land within the offset project boundary and areas adjacent to the offset project boundary;

(C) A copy of the permanent conservation easement required pursuant to subdivision (6) of this subsection;

(D) A written legal opinion from an attorney licensed to practice in the state where the offset project is located, or from the cooperating regulatory agency, confirming the enforceability of the permanent conservation easement for those offset projects located in a state or United States jurisdiction that is not a participating state; and

(E) Plant species to be planted or established via natural regeneration, and a forest management plan consistent with the requirements of subdivision (3) of this subsection.

(3) Carbon sequestration baseline determination. The existing sequestered carbon within the project boundary shall be calculated prior to commencement of the offset project. The carbon sequestration baseline shall be determined based on a sum of measurements, made no more than 12 months prior to offset project commencement, of the carbon content of the following carbon pools:

(A) Carbon content shall be calculated for the following required carbon pools:

(i) Live above-ground tree biomass;

(ii) Live below-ground tree biomass;

(iii) Soil carbon; and

(iv) Dead organic matter, and coarse woody debris, unless the baseline measurement for

this carbon pool is at or near zero, in which case measurement of this carbon pool during the allocation period is optional;

(B) Carbon content may be calculated for the following optional carbon pools:

(i) Live above-ground non-tree biomass; and

(ii) Dead organic matter, and forest floor;

(C) Carbon content shall be calculated individually for each carbon pool within the offset project boundary;

(D) To increase the accuracy of measurement and verification, the area within the offset project boundary shall be divided into sub-populations that form relatively homogenous units. When defining sub-populations, the project sponsor shall consider vegetation and tree species, including existing vegetation and trees and those to be utilized as part of the offset project activity, and site factors such as soil type, elevation, slope and other factors as warranted;

(E) Calculation of sequestered carbon for each carbon pool in each reporting stratum shall be based on the following:

CO_2 tons = [(A × C/ha)(44/12)] / 0.9072

Where:

A = Area in hectares within each reporting stratum;

C = Carbon content (metric tons of carbon for each carbon pool);

C/ha = Mean carbon content per hectare for each carbon pool;

(F) Total carbon contained within the offset project boundary represented in tons of carbon shall be calculated as follows:

$TC_{pb} = TC_{latb} + TC_{lbtb} + TC_s$ [+ TClantb + TC_{doff} + TC_{docwd}] Where:

TC_{pb} = Total carbon content within the offset project boundary (TC_{pb}) (sum of carbon content of all carbon pools in all reporting sub-populations);

TC_{latb} = Sum of carbon content of live above-ground tree biomass in all reporting sub-populations;

TC_{lbtb} = Sum of carbon content of live below-ground tree biomass in all reporting sub-populations;

TC_s = Sum of carbon content of soil carbon in all reporting sub-populations;

TClantb [option] = Sum of carbon content of live above-ground non-tree biomass in each reporting sub-populations;

TC_{doff} [option] = Sum of carbon content of dead organic matter, forest floor in all reporting sub-populations; and

TC_{docwd}[mandatory/option] = Sum of carbon content of dead organic matter, coarse woody debris in all reporting sub-populations pursuant to subdivision (3)(A)(iv) of this subsection;

(G) Each individual carbon pool to be measured shall be directly measured using a measurement protocol and sample size that achieves a demonstrated quantified accuracy such that there is at least 95% confidence that the resulting reported value is within 10% of the true mean. Measurement and sampling practices shall meet the following requirements:

(i) An adequate sample size that meets the requirements of subparagraph (ii) of this

subparagraph shall be determined for each stratum;

(ii) The minimum number of required sampling plots for each reporting stratum shall be determined based on the following:

$n = (s \times 1.960)/(mean \times re)^2$

Where:

n = required number of sample plots for each reporting sub-populations;

s = standard deviation;

mean = mean reported carbon content for the sample population; and

re = level of sampling error (0.08) to assure a total maximum error of 10% for the 95% confidence interval, that assumes total error due to measurement error of 0.02; and

(H) Direct measurement procedures shall be consistent with current forestry good practice and the guidance contained in U.S. Department of Energy, *Technical Guidelines for Voluntary Reporting of Greenhouse Gases (1605(b)) Program; Chapter 1, Emissions Inventories; Part I Appendix: Forestry; Section 3: Measurement Protocols for Forest Carbon Sequestration* (March 2006).

(4) Calculating carbon sequestered. Carbon sequestration shall be determined using a base year approach, where the amount of carbon sequestered is measured as a net increase in carbon relative to the base year measurement. Carbon sequestration, represented in tons of carbon, shall be the amount of net additional carbon sequestered during each calculation period, based upon aggregate carbon uptake and carbon emissions for the sum of carbon pools, relative to the baseline carbon content or the carbon content as of the previous calculation period, if above the baseline carbon content, as applicable. CO_2 offset allowances shall be issued based on the amount of net additional carbon sequestered within the offset project boundary during each reporting period, and represented in tons of CO_2 equivalent. Sequestered carbon shall be calculated using a stock-change approach as follows:

$NCS_t = I_t - I_{t-1}$

Where:

NCS_t = Net carbon sequestered in reporting period t;

I_t = Inventory of carbon stock for all carbon pools in all reporting sub-populations within the offset project boundary in reporting period t; and

I_{t-1} = Inventory of carbon stock for all carbon pools in all reporting sub-populations within the offset project boundary in the reporting period immediately preceding reporting period t;

(A) Except as provided in subdivision (3)(A)(iv) of this subsection, each of the carbon pools that were measured as part of the baseline determination shall be remeasured using the same methodology, and to the same or better quantified accuracy consistent with the requirements of subdivisions (3)(G) and (H) of this subsection;

(B) The net change in each pool's carbon stock in each reporting stratum is calculated by subtracting the baseline carbon stock (or stock at the previous monitoring) from the carbon stock at the time of the current monitoring. Determination of carbon stock shall be in accordance with the formulas and procedures in subdivision (3) of this subsection;

(C) Net carbon stock change for the offset project is the sum of the net changes in the carbon stock of all applicable pools in all reporting sub-populations within the offset project boundary, less ten percent (10%) to account for potential losses of sequestered carbon. This 10% discount shall not be required, provided the project sponsor retains long-term insurance, approved by the commissioner or their designee, that guarantees replacement of any lost sequestered carbon for which CO_2 allowances were issued pursuant to subsection (j) of this section;

(5) Monitoring and verification requirements. Total carbon stock shall be calculated not less than every five years.

(A) A project sponsor shall submit monitoring and verification reports. Such reports shall include data from direct measurement of carbon content for all plots used to determine baseline and reporting period carbon content;

(B) The consistency application shall include a monitoring and verification plan certified by the commissioner or the commissioner's designee or an independent verifier accredited pursuant to subsection (i) of this section. The monitoring and verification plan shall include the following:

(i) Direct carbon measurement procedures consistent with the requirements at subdivision (3)(H) of this subsection;

(ii) The designation of sub-populations pursuant to subdivision (3)(D) of this subsection. The determination of the minimum number of sampling plots pursuant to subdivision (3)(G) of this subsection; and

(iii) If commercial timber harvest activities have occurred or will occur, an assessment of management practices to ensure that the offset project has been managed in accordance with environmentally sustainable forestry practices consistent with the Forest Stewardship Council (FSC), Sustainable Forestry Institute (SFI), American Tree Farm System (ATFS), or such other similar organizations as may be approved by the commissioner or their designee; and

(C) The applicant shall allow access to the project site and the reserve set-aside site to the accredited independent verifier, or as requested by the commissioner or the commissioner's designee.

(6) Carbon sequestration permanence. The offset project shall meet the following requirements to address permanence of sequestered carbon:

(A) The project sponsor shall place the land within the offset project boundary under a legally binding permanent conservation easement, approved by the commissioner or the commissioner's designee, which requires the land to be maintained in a forested state in perpetuity;

(B) The conservation easement shall include a requirement that the carbon density within the offset project boundary be maintained at long-term levels at or above that achieved as of the end of the CO_2 offset crediting period pursuant to subsection (c)(5) of this section; and

(C) The conservation easement shall require that the land be managed in accordance

with environmentally sustainable forestry practices.

(g) **Reduced or Avoided CO_2Emissions Due to End-Use Energy Efficiency**

(1) Eligibility. An offset project that reduces CO_2 emissions by reducing on-site combustion of natural gas, oil, or propane for end-use in an existing or new commercial or residential building by improving the energy efficiency of fuel usage and the energy-efficient delivery of energy services shall meet the requirements ofthis subsection and all other applicable requirements of this section, to qualify for the award of CO_2 offset allowances. Eligible new buildings are limited to new buildings that are designed to replace an existing building on the offset project site, or new buildings designed to be zero net energy buildings. Eligible offset projects may include the following energy conservation measures (ECMs):

(A) Improvements in the energy efficiency of combustion equipment that provide space heating and hot water, including a reduction in fossil fuel consumption through the use of solar and geothermal energy;

(B) Improvements in the efficiency of heating distribution systems, including proper sizing and commissioning of heating systems;

(C) Installation or improvement of energy management systems;

(D) Improvement in the efficiency of hot water distribution systems and reduction in demand for hot water;

(E) Measures that improve the thermal performance of the building envelope or reduce building envelope air leakage;

(F) Measures that improve the passive solar performance of buildings and utilization of active heating systems using renewable energy; and

(G) Switching to a less carbon-intensive fuel for use in combustion systems, including the use of liquid or gaseous renewable fuels, provided that conversions to electricity are not eligible.

(2) Offset project description. The project sponsor shall provide a detailed narrative of the offset project actions to be taken, including supporting materials as appropriate. The offset project narrative shall include the following:

(A) Location and specifications of the building or buildings where the offset project actions are proposed to occur;

(B) The name or names and address of the owner and operator of the building or buildings;

(C) The parties implementing the offset project, including the lead contractor or contractors, subcontractors, and consulting firms;

(D) Specifications of equipment and materials to be installed as part of the offset project; and

(E) Building plans and offset project technical schematics, as applicable.

(3) Performance standards. For offset projects initiated on or after January 1, 2009, the project sponsor shall demonstrate, to the satisfaction of the commissioner or the commissioner’s designee, that energy conservation measures implemented as part of eligible offset projects listed in subdivision (1) of this subsection have a market penetration rate of

less than 5%. Offset projects initiated on or after January 1, 2009 shall also meet the applicable requirements set forth in subparagraphs (A)(iii) and (C) of this subdivision. For offset projects initiated prior to 2009, energy conservation measures implemented as part of eligible offset projects listed in subdivision (1) of this subsection shall meet the following performance or prescriptive criteria, as applicable:

(A) Combustion equipment. Combustion equipment shall meet the following energy efficiency performance and other requirements, as applicable:

(i) Commercial boilers. Commercial boilers shall meet the following energy efficiency criteria set forth in Table 31a-2:

Table 31a-2

Minimum Commercial Boiler Energy Efficiency

Technology	Size (Btu/hr)	Rating Method	Min. Efficiency
Gas-fired[b]	125,000-3000,000	AFUE	≥ 88.0%
	300,00-12,500,00	Thermal Efficiency[a]	≥ 90.0%
Oil-fired	> 300,000	Thermal Efficiency	≥ 84.0%

[a] For purposes of Table 31a-2, "Thermal Efficiency" means the useful energy output (Btu) divided by energy input (Btu) and presented as a percentage measured under steady state conditions, at full rated useful thermal output, 140°F supply from and 120°F return water temperature to the boiler.

[b] Gas-fired boilers shall be installed with controls that allow the boiler to operate in condensing mode and installed with vents designed for positive vent static pressure and vent gas temperature that leads to condensate production in the vent.

(ii) Residential combustion equipment. Residential combustion equipment, furnaces, boilers and water heaters, shall meet or exceed the following energy efficiency criteria set forth in Table 31a-3:

Table 31a-3

Minimum Residential Combustion Equipment[a] Energy Efficiency

Technology	Rating Method	Min. Efficiency
Gas-fired furnace	AFUE	≥ 94%
Oil-fired furnace	AFUE	≥ 92%
Gas/oil-fired boiler	AFUE	≥ 90%
Gas/oil-fired water heater	Energy Factor	≥ 0.62

[a] For purposes of Table 31a-3, "furnace" means equipment with a heat input rate of less than 225,000 Btu/hr; "boiler" means equipment with a heat input rate of less than 300,000 Btu/hr; and "water heater" means equipment subject to 10 CFR 430.

(iii) Installation best practice for commercial HVAC systems. Combustion equipment and related air handling equipment (HVAC systems) shall be sized and installed in accordance with ANSI/ASHRAE/IESNA Standard 90.1-2004: Energy Standard for Buildings Except Low-Rise Residential Buildings and ANSI/ASHRAE Standard 62.1-2004:

Ventilation for Acceptable Indoor Air Quality; and

(iv) Installation best practice for residential HVAC systems. Residential HVAC systems shall meet the applicable sizing and installation specifications of "Specification of Energy-Efficient Installation and Maintenance Practices for Residential HVAC Systems," Consortium for Energy Efficiency, 2000;

(B) Non-combustion energy conservation measures. Energy conservation measures implemented as part of an offset project or actions pursuant to subdivision (1)(B) to (G), inclusive, of this subsection shall meet the applicable requirements, as specified, in*Energy Benchmark for High Performance Buildings, Version 1.1*, New Buildings Institute, 2005 (referred to as EBHPB in this section), or state building energy codes, whichever are more stringent as demonstrated by the offset project sponsor. Energy conservation measures without specified performance criteria in the referenced EBHPB shall meet the requirements of Federal Energy Management Program (FEMP) Product Energy Efficiency Recommendations, issued pursuant to Executive Orders 13123 and 13221, or Energy Star criteria issued jointly by the U.S. Environmental Protection Agency and U.S. Department of Energy, whichever result in better energy performance as demonstrated by the offset project sponsor; and

(C) Whole-building energy performance. New buildings or whole building retrofits that incorporate offsets projects or actions shall also meet the following requirements:

(i) Commercial buildings. Commercial buildings shall exceed the energy performance requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004: Energy Standard for Buildings Except Low-Rise Residential Buildings by 30%, with the exception of multi-family residential buildings classified as commercial by ANSI/ASHRAE/IESNA Standard 90.1-2004, which shall exceed these energy performance requirements by 20%; and

(ii) Residential buildings. Residential buildings shall exceed the energy performance requirements of the 2004 International Energy Conservation Code Supplement by 30%.

(4) Emissions baseline determination. The emissions baseline shall be determined based on energy usage (MMBtu) by fuel type for each energy conservation measure, derived using historic fuel use data from the most recent calendar year for which data is available, multiplied by an emission factor and oxidation factor for each respective fuel set forth in Table 31a-4:

Table 31a-4

Fuel	Emission Factor (lbs. CO_2/MMBtu)	Oxidation Factor
Natural Gas	116.98	0.995
Propane	139.04	0.995
Distillate Fuel Oil	161.27	0.99
Kerosene	159.41	0.99

(A) Isolation of applicable energy conservation measure baseline. The project sponsor

shall isolate the baseline energy usage of the application to be targeted by the energy conservation measure, in a manner consistent with the requirements set forth in subdivision (6) of this subsection;

(B) Annual baseline energy usage shall be determined as follows:

$$\text{Energy Usage (MMBtu)} = BEU_{AECM} \times A$$

Where:

BEU_{AECM} = Annual pre-installation baseline energy use by fuel type (MMBtu) attributable to the application to be targeted by the energy conservation measure or measures. If applicable building codes or equipment standards require that equipment or materials installed as part of the offset project meet certain minimum energy performance requirements, baseline energy usage for the application shall assume that equipment or materials are installed that meet such minimum requirements. For offset projects that replace existing combustion equipment, the assumed minimum energy performance required by applicable building codes or equipment standards shall be that which applies to new equipment that uses the same fuel type as the equipment being replaced. Baseline energy usage shall be determined in accordance with the applicable requirements set forth in subdivision (6) of this subsection; and

A = Adjustments to account for differing conditions during the two time periods, pre-installation and post-installation, such as weather and building occupancy. Adjustments shall be determined in accordance with the applicable requirements in subdivision (6) of this subsection; and

(C) Annual baseline emissions shall be determined as follows:

$$\text{Emissions (lbs. } CO_2) = \sum_{i=1}^{n} BEU_i \times EF_i \times OF_i$$

Where:

BEU_i = Annual baseline energy usage for fuel type i (MMBtu) demonstrated pursuant to the requirements at subdivision (6)(A) to (D), inclusive, of this subsection;

EF_i = Emissions factor (lbs. CO_2/MMBtu) for fuel type i listed at subdivision (4), Table 31a-4 of this subsection; and

OF_i = Oxidation factor for fuel type i listed at subdivision (4), Table 31a-4 of this subsection.

(5) Calculating emissions reductions. Emissions reductions shall be determined based upon annual energy savings by fuel type (MMBtu) for each energy conservation measure, multiplied by the emission factor and oxidation factor for the respective fuel type in subdivision (4), Table 31a-4 of this subsection.

(A) Annual energy savings shall be determined as follows:

$$\text{Energy Savings (MMBtu)} = (BEU_{AECM} \times A) - (PIEU_{ECM} \times A)$$

Where:

BEU_{AECM} = Annual pre-installation baseline energy use by fuel type (MMBtu) calculated pursuant to subdivision (6)(A) to (D), inclusive, of this subsection;

$PIEU_{ECM}$ = Annual post-installation energy use by fuel type (MMBtu) attributable to the energy conservation measure. Post-installation energy usage shall be determined in accordance with the applicable requirements in subdivision (6) of this subsection; and

A = Adjustments to account for any differing conditions during the two time periods, pre-installation and post-installation, including but not limited to weather, building occupancy, and changes in building use or function. Adjustments shall be determined in accordance with the applicable requirements at subdivision (6) of this subdivision; and

(B) Annual emissions reductions shall be determined as follows:

$$\text{Emissions Reduction (lbs. } CO_2) = \sum_{i=1}^{n} ES_i \times EF_i \times OF_i$$

Where:

ES_i = Energy savings for fuel type i (MMBtu) demonstrated pursuant to the requirements at subdivision (6) of this subsection;

EF_i = Emissions factor (lbs. CO_2/MMBtu) for fuel type i listed at subdivision (4), Table 31a-4 of this subsection; and

OF_i = Oxidation factor for fuel type i listed in subdivision (4), Table 31a-4 of this subsection.

(6) Monitoring and verification requirements. As part of the consistency application, the project sponsor shall provide a monitoring and verification plan certified by an independent verifier accredited pursuant to subsection (i) of this section.

Annual monitoring and verification reports shall be certified by an independent verifier accredited pursuant to subsection (i) of this section. Independent verifiers shall conduct a site audit when reviewing the first monitoring and verification report submitted by the project sponsor, except for offset projects that save less than 1,500 MMBtu per year. For offset projects that save less than 1,500 MMBtu per year, the project sponsor shall provide the independent verifier with equipment specifications and copies of equipment invoices and other relevant offset project-related invoices. All offset project documentation, including the consistency application and monitoring and verification reports, shall be signed by a Professional Engineer, identified by license number. Monitoring and verification shall also meet the following requirements:

(A) General energy measurement and verification requirements. Monitoring and verification of energy usage shall be demonstrated through a documented process consistent with the following protocols and procedures, as applicable:

(i) For existing commercial buildings, the determination of baseline energy usage shall

be consistent with the International Performance Measurement & Verification Protocol, Volume I: Concepts and Options for Determining Energy and Water Savings (IPMVP), "Option B. Retrofit Isolation" and "Option D. Calibrated Simulation." If a building project involves only energy conservation measures implemented as part of a CO_2 emissions offset project, a process consistent with IPMVP "Option C. Whole Facility" may be used, as applicable. Any application of the IPMVP general guidance shall be consistent with the applicable detailed specifications in ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings;

(ii) For new commercial buildings, the determination of baseline energy usage shall be consistent with the International Performance Measurement & Verification Protocol, Volume III: Concepts and Options for Determining Energy Savings in New Construction (IPMVP), "Option D. Calibrated Simulation." Any application of the IPMVP general guidance shall be consistent with the applicable detailed specifications in ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings; and

(iii) For existing and new residential buildings, the determination of baseline energy usage shall be consistent with the requirements of the RESNET National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of the 2006 Mortgage Industry National Home Energy Rating System Standards);

(B) Isolation of applicable energy conservation measure. In calculating both baseline energy usage and energy savings, the applicant shall isolate the impact of each eligible energy conservation measure (ECM), either through direct metering or energy simulation modeling. For offset projects with multiple ECMs, and where individual ECMs can affect the performance of others, the sum of energy savings due to individual ECMs shall be adjusted to account for the interaction of ECMs. For commercial buildings, this process shall be consistent with the requirements of ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004: Energy Standard for Buildings Except Low-Rise Residential Buildings. For residential buildings, this process shall be consistent with the requirements of RESNET National Home Energy Rating Technical Guidelines, 2006, Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards. Reductions in energy usage due to the energy conservation measure shall be based upon actual energy usage data. Energy simulation modeling shall only be used to determine the relative percentage contribution to total fuel usage, for each respective fuel type, of the application targeted by the energy conservation measure;

(C) Calculation of energy savings. Annual energy savings are to be determined based on the following:

Energy Savings (MMBtu) = $(BEU_{AECM} \times A) - (PIEU_{ECM} \times A)$

Where:

BEU_{AECM} = Annual pre-installation baseline energy use by fuel type (MMBtu) attributable to the application to be targeted by the energy conservation measure or measures, based upon annual fuel usage data for the most recent calendar year for which data is available.

For new buildings, baseline energy use for a reference building equivalent in basic configuration, orientation, and location to the building in which the eligible energy conservation measure or measures is implemented shall be determined according to ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. Where energy simulation modeling is used to evaluate an existing building, modeling shall be conducted in accordance with ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For existing and new residential buildings, energy simulation modeling shall be conducted in accordance with the requirements of RESNET National Home Energy Rating Technical Guidelines, 2006, Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards;

$PIEU_{ECM}$ = Annual post-installation energy use by fuel type (MMBtu) attributable to the energy conservation measure, to be verified based on annual energy use after installation of the energy conservation measure or measures, consistent with the requirements of ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings. Where energy simulation modeling is used to evaluate a new or existing building, modeling shall be conducted in accordance with ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For existing and new residential buildings, energy simulation modeling shall be consistent with the requirements of RESNET National Home Energy Rating Technical Guidelines, 2006, Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards; and

A = Adjustments to account for any differing conditions during the two time periods (pre-installation and post-installation), such as weather (weather normalized energy usage based on heating and cooling degree days), building occupancy, and changes in building use or function. For commercial buildings, adjustments shall be consistent with the specifications of ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For residential buildings, adjustments shall be consistent with the specifications of RESNET National Home Energy Rating Technical Guidelines, 2006, Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards; and

(D) Provision for sampling of multiple like offset projects in residential buildings. Offset projects that implement similar measures in multiple residential buildings may employ representative sampling of buildings to determine aggregate baseline energy usage and energy savings. The commissioner or their designee shall approve sampling protocols. All sampling plans shall be certified by an independent verifier, accredited pursuant to subsection (i) of this section.

(h) **Avoided Methane (CH_4) Emissions from Agricultural Manure Management Operations**

(1) Eligibility. Offset projects that capture and destroy methane from animal manure and

organic food waste using anaerobic digesters shall meet the requirements of this subsection and all other applicable requirements of this section, to qualify for the award of CO_2 offset allowances. In addition, eligible offset projects shall meet the following requirements:

(A) CO_2 offset allowances may be awarded for the destruction of that portion of methane generated by the anaerobic digester that would have been generated in the absence of the offset project through the uncontrolled anaerobic storage of manure or organic food wastes;

(B) Eligible offset projects shall employ only manure-based anaerobic digester systems using livestock manure as the majority of digester feedstock, defined as 50% or more of the mass input into the digester on an annual basis. Organic food waste used by an anaerobic digester shall only be that which would have been stored in anaerobic conditions in the absence of the offset project;

(C) The provisions of subsection (c)(5)(B) and (C) of this section shall not apply to agricultural manure methane offset projects provided either:

(i) The offset project is located in a state that has a market penetration rate for anaerobic digester projects of 5% or less. The market penetration determination shall utilize the most recent market data available at the time of submission of the consistency application and shall be determined as follows:

$MP\ (\%) = MG_{AD}/MG_{STATE}$

Where:

MG_{AD} = Average annual manure generation for the number of dairy cows and swine serving all anaerobic digester projects in the applicable U.S. state at the time of submission of a consistency application pursuant to subsection (c)(10) of this section; and

MG_{STATE} = Average annual manure production of all dairy cows and swine in that U.S. state at the time of submission of a consistency application pursuant to subsection (c)(10) of this section;

or

(ii) The offset project is located at a farm with 4,000 or less head of dairy cows, or a farm with equivalent animal units, assuming an average live weight for dairy cows (lbs./cow) of 1,400 lbs., or, if the project is a regional-type digester, total annual manure input to the digester is designed to be less than the average annual manure produced by a farm with 4,000 or less head of dairy cows, or a farm with equivalent animal units, assuming an average live weight for dairy cows (lbs./cow) of 1,400 lbs.

(2) Offset project description. The project sponsor shall provide a detailed narrative of the offset project, including supporting materials as appropriate. The offset project narrative shall include the following:

(A) The name or names and addresses of the owner and operator of the offset project;

(B) Location and specifications of the facility where the offset project is proposed to occur;

(C) The name or names and addresses of the owner and operator of the facility where the offset project is proposed to occur;

(D) Specifications of the equipment to be installed and a technical schematic of the offset

project; and

(E) Location and specifications of the facilities from which anaerobic digester influent will be received, if different from the facility where the offset project is proposed to occur.

(3) Emissions baseline determination. The emissions baseline shall represent the potential emissions of the CH_4 that would have been produced in a baseline scenario under uncontrolled anaerobic storage conditions and released directly to the atmosphere in the absence of the offset project.

(A) Baseline CH_4 emissions shall be calculated as follows:

CO_2e (tons) = (V_m × M)/2000 × GWP

Where:

CO_2e = Potential CO_2e emissions due to calculated CH_4 production under site-specific anaerobic storage and weather conditions;

V_m = Volume of CH_4 produced each month from degradation of volatile solids in a baseline uncontrolled anaerobic storage scenario under site-specific storage and weather conditions for the facility at which the manure is generated (ft^3);

M = Mass of CH_4 per cubic foot (0.04246 lb/ft^3 default value at one atmosphere and 20°C); and

GWP = Global warming potential of CH_4 (23);

(B) The estimated amount of volatile solids degraded each month under the uncontrolled anaerobic storage baseline scenario (kg) shall be calculated as follows:

$VS_{deg} = VS_{avail} \times f$

Where:

VS = volatile solids as determined from the equation:

$VS = M_m \times TS_{\%} \times VS_{\%}$

Where:

M_m = mass of manure or organic good waste produced per month (kg);

$TS_{\%}$ = Concentration (percent) of total solids in manure or organic food waste as determined through EPA 160.3 testing method (U.S.EPA Method Number 160.3, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020));

$VS_{\%}$ = Concentration (percent) of volatile solids in total solids as determined through EPA 160.4 testing method (USEPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020)); and

VS_{avail} = Volatile solids available for degradation in manure or organic food waste storage each month as determined from the equation:

$VS_{avail} = VS_p + ½\ VS_{in} - VS_{out}$

Where:

VS_p = Volatile solids present in manure or organic food waste storage at beginning of month (left over from previous month) (kg);

VS_{in} = Volatile solids added to manure or organic food waste storage during the course of the month (kg). The factor of ½ is multiplied by this number to represent the average mass of volatile solids available for degradation for the entire duration of the month;

VS_{out} = Volatile solids removed from the manure or organic food waste storage for land application or export (assumed value based on standard farm practice); and

f = Van't Hoff-Arrhenius factor for the specific month as determined using the equation below. Using a base temperature of 30°C, the equation is as follows:

$f = \exp[E \times (T_2 - T)]/[(GC \times T_1 \times T_2)]$

Where:

f = conversion efficiency of VS to CH_4 per month;

E = Activation energy constant (15,175 cal/mol);

T_2 = Average monthly ambient temperature for farm (converted from °Celsius to °Kelvin) as determined from the nearest National Weather Service certified weather station (if reported temperature °C > 5°C; if reported temperature °C < 5°C, then F = 0.104);

T_1 = 303.16 (30° C converted to °K); and

GC = Ideal gas constant (1.987 cal/K mol); and

(C) The volume of CH_4 produced (ft^3) from degradation of volatile solids shall be calculated as follows:

$V_m = (VS_{deg} \times B_o) \times 35.3147$

Where:

V_m = Volume of CH_4 (ft^3);

VS_{deg} = Volatile solids degraded (kg); and

B_o = Manure or organic food waste type-specific maximum methane generation constant (m^3 CH_4/kg VS degraded). For dairy cow manure, B_o = 0.24 m^3 CH_4/kg VS degraded. The methane generation constant for other types of manure shall be those cited at U.S. EPA,*Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2001*, Annex 3, Table A-162 (U.S. EPA, April 2007), unless the project sponsor proposes an alternate methane generation constant. If the project sponsor proposes to use a methane generation constant other than that provided in said Table A-162, the project sponsor shall provide justification and documentation to the commissioner or the commissioner's designee.

(4) Calculating emissions reductions. Emissions reductions shall be determined based on the potential emissions (in tons of CO_2e) of the CH_4 that would have been produced in the absence of the offset project under a baseline scenario that represents uncontrolled anaerobic storage conditions, as calculated pursuant to subdivision (3) of this subsection, and released directly to the atmosphere. Emissions reductions may not exceed the potential emissions of the digester, as represented by the annual volume of CH_4 produced by the anaerobic digester, as monitored pursuant to subdivision (5) of this subsection. If the project is a regional-type digester, CO_2 emissions due to transportation from the site where the manure or organic food waste was generated to the anaerobic digester shall be subtracted from the emissions reduction calculated pursuant to subdivision (3) of this subsection. Transportation related CO_2 emissions shall be determined through one of the following methods:

(A) Documentation of transportation fuel use for all shipments of manure or organic food waste to the anaerobic digester during each reporting year and a log of transport miles

for each shipment. CO_2 emissions shall be determined through the application of an emissions factor for the fuel type used. If this option is chosen, the following emission factors shall be applied as appropriate:

(i) Diesel fuel: 22.912 lbs. CO_2/gallon;

(ii) Gasoline: 19.878 lbs. CO_2/gallon; or

(iii) Other fuel: submitted emission factor approved by the commissioner or the commissioner's designee; and

(B) Documentation of total tons of manure or organic food waste transported from off-site for input into the anaerobic digester during each reporting year, as monitored pursuant to subdivision (5)(A) of this subsection, and a log of transport miles and fuel type used for each shipment. CO_2 emissions shall be determined through the application of a ton-mile transport emission factor for the fuel type used. If this option is chosen, the following emission factors shall be applied as appropriate for each ton of manure delivered, and multiplied by the number of miles transported:

(i) Diesel fuel: 0.131 lbs. CO_2 per ton-mile;

(ii) Gasoline: 0.133 lbs. CO_2 per ton-mile; or

(iii) Other fuel: submitted emission factor approved by the commissioner or the commissioner's designee.

(5) Monitoring and verification requirements. Offset projects shall employ a system that provides metering of biogas volumetric flow rate and determination of CH_4 concentration. Annual monitoring and verification reports shall include monthly biogas volumetric flow rate and CH_4 concentration determination. Monitoring and verification shall also meet the following requirements:

(A) If the offset project is a regional-type digester, manure and organic food waste from each distinct supply source supplying to the anaerobic digester shall be sampled monthly to determine the amount of volatile solids present. Any emissions reduction shall be calculated according to mass of manure and organic food waste (kg) being digested and percentage of volatile solids present before digestion, consistent with the requirements at subdivisions (3) and (5)(C) of this subsection, and apportioned accordingly. The project sponsor shall provide supporting material and receipts tracking the monthly receipt of manure and organic food waste (kg) used to supply the anaerobic digester from each manure supplier;

(B) If the offset project includes the digestion of organic food wastes eligible pursuant to subdivision (1)(A) of this subsection, organic food wastes shall be sampled monthly to determine the amount of volatile solids present before digestion, consistent with the requirements of subdivision (3) of this subsection, and apportioned accordingly;

(C) The project sponsor shall submit a monitoring and verification plan as part of the consistency application that includes a quality assurance and quality control program associated with equipment used to determine biogas volumetric flow rate and CH_4 composition. The monitoring and verification plan shall be specified in accordance with the monitoring requirements listed in Table 31a-5, Input Monitoring Requirements, as

applicable. The monitoring and verification plan shall also include provisions for ensuring that measuring and monitoring equipment is maintained, operated, and calibrated based on manufacturer's recommendations, as well as provisions for the retention of maintenance records for audit purposes. The monitoring and verification plan shall be certified by an independent verifier accredited pursuant to subsection (i) of this section; and

(D) The project sponsor shall quarterly verify biogas CH_4 composition through gas sampling and third party laboratory analysis using applicable U.S. EPA test methods.

Table 31a-5 Input Monitoring Requirements

Input Parameter	Measurement Unit	Frequency of Sampling	Sampling Method or Methods
Influent flow (mass) into the digester	Kilograms (kg) per month (wet weight)	Monthly total into the digester	a) Average herd population and American Society of Agricultural and Biological Engineers (ASABE) standard (ASAE D384.2, March 2005) b) Digester influent pump flow c) Recorded weight
Influent total solids concentration (TS)	Percent (of sample)	Monthly, depending upon recorded variations	U.S. EPA Method Number 160.3, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020)
Influent volatile solids (VS) concentration	Percent (of TS)	Monthly, depending upon recorded variations	USEPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020)
Average monthly ambient temperature	Temperature °C	Monthly (based on farm averages)	Closest National Weather Service-certified weather station

(i) **Accreditation of Independent Verifiers**

(1) Standards for accreditation. Independent verifiers may be accredited by the commissioner or the commissioner's designee to provide verification services as required of project sponsors under this section, provided that independent verifiers meet all of the

requirements of this subsection.

(A) Persons selected to perform verification services shall:

(i) Demonstrate knowledge of utilizing engineering, accounting and auditing principles sufficient to quantify greenhouse gas emissions, and develop and evaluate air emissions inventories;

(ii) Demonstrate knowledge of information management systems;

(iii) Demonstrate knowledge of the requirements of this section and section 22a-174-31 of the Regulations of Connecticut State Agencies;

(iv) Demonstrate that no direct or indirect financial relationship, beyond a contract for provision of verification services, exists with any offset project developer or sponsor;

(v) Employ staff with, knowledge, experience, and where appropriate, professional licenses appropriate to the specific category(ies) of offset projects specified in subsections (d) to (h), inclusive, of this section that they seek to verify;

(vi) Certify that such person holds a minimum of one million U.S. dollars of professional liability insurance. If the insurance is in the name of a related entity, the verifier shall disclose the financial relationship between the verifier and the related entity, and provide documentation supporting the description of the relationship; and

(vii) Demonstrate that adequate protocols are established to avoid conflicts of interest with regard to an offset project, offset project developer, or project sponsor, or any other party with a direct or indirect financial interest in an offset project that is seeking or has been granted an approval under subsection (c) of this section; and

(B) Applicants shall possess such other qualifications as may be required by the commissioner to provide competent verification services for individual CO_2 emissions offset categories specified in subsections (d) to (h), inclusive, of this section.

(2) Pre-qualification of verifiers. The commissioner or the commissioner's designee may require prospective independent verifiers to successfully complete a training course, workshop or test developed by the commissioner or the commissioner's designee prior to submitting an application for accreditation.

(3) Application for accreditation. An independent verifier shall submit an application for accreditation to the commissioner. The application shall include sufficient information to demonstrate that the applicant meets all accreditation standards required at subdivisions (1)(A)(i) to (vii), inclusive, of this subsection. The independent verifier's application for accreditation shall:

(A) Provide the applicant's name, address, e-mail address, telephone number, and facsimile transmission number;

(B) Demonstrate that the applicant has at least two years of experience in each of the knowledge areas specified in subdivisions (1)(A)(i) and (ii) of this subsection, and as may be required pursuant to subdivision (1)(B) of this subsection;

(C) Verify that the applicant has successfully completed the requirements of subdivision (2) of this subsection, as applicable;

(D) Include a sample of at least one non-proprietary work product that provides

supporting evidence that the applicant meets the requirements, as applicable, in subdivision (1)(A) of this subsection. The work product shall have been produced, in whole or part, by the applicant and shall consist of a final report or other material provided to a client under contract in previous work. For a work product that was jointly produced by the applicant and another entity, the role of the applicant in the work product shall be clearly explained;

(E) Provide documentation that the applicant holds professional liability insurance as required pursuant to subdivision (1)(A)(vi) of this subsection; and

(F) Provide documentation that the applicant has implemented an adequate management protocol required pursuant to subdivision (1)(A)(vii) of this subsection to address and remedy any conflict of interest issues that may arise.

(4) The commissioner shall approve or deny a complete application for accreditation not later than 90 days after submission. Upon approval of an application for accreditation, the independent verifier shall be accredited for a period of three years from the date of application approval.

(5) Independent verifiers that have been accredited in other participating states shall be deemed accredited in Connecticut.

(6) Conduct of accredited verifiers.

(A) Prior to engaging in verification services for an offset project sponsor, the accredited verifier shall disclose all relevant information to the commissioner or the commissioner's designee to allow for an evaluation of potential conflict of interest with respect to an offset project, offset project developer, or project sponsor. The accredited verifier shall disclose information concerning its ownership, past and current clients, related entities, as well as any other facts or circumstances that have the potential to create a conflict of interest;

(B) Accredited verifiers shall have an ongoing obligation to disclose to the commissioner or the commissioner's designee any facts or circumstances that may give rise to a conflict of interest with respect to an offset project, offset project developer, or project sponsor;

(C) Rejection of verification reports. The commissioner or the commissioner's designee may reject a verification report and certification statement from an accredited verifier, that is submitted as part of a consistency application required pursuant to subsection (c) of this section or submitted as part of a monitoring and verification report submitted pursuant to subsection (j) of this section, if the commissioner or the commissioner's designee determines that the accredited verifier has a conflict of interest related to the offset project, offset project developer, or project sponsor; and

(D) Revocation of accreditation. The commissioner or the commissioner's designee may revoke the accreditation of a verifier at any time given cause, for any of the following:

(i) Failure to fully disclose any issues that may lead to a conflict of interest situation with respect to an offset project, offset project developer, or project sponsor;

(ii) Lack of qualification due to changes in staffing or other criteria;

(iii) Negligence or neglect of responsibilities pursuant to the requirements of this section; and

(iv) Intentional misrepresentation of data or other intentional fraud.

(j) **Award and Recordation of CO_2Offset Allowances**

(1) Quantities of CO_2 offset allowances awarded. Following the issuance of a consistency determination under subsection (c)(12) of this section and the approval of a monitoring and verification report under the provisions of subdivision (5) of this subsection, the commissioner or their designee shall award one CO_2 offset allowance for each ton of demonstrated reduction in CO_2 or CO_2 equivalent emissions or sequestration of CO_2.

(2) CO_2 emissions credit retirement. If a project sponsor received a consistency determination pursuant to subsection (c)(12) of this section, one CO_2 offset allowance shall be awarded for each ton of reduction of CO_2 or CO_2 equivalent or sequestration of CO_2, represented by the relevant credits or allowances retired. If a credit or allowance is represented in metric tons, 1.1023 tons shall be awarded for every metric ton, provided that total CO_2 offset allowances awarded shall be rounded down to the nearest whole ton.

(3) Recordation of CO_2 offset allowances. After CO_2 offset allowances are awarded under this subsection the commissioner or the commissioner's designee shall record such CO_2 offset allowances in the project sponsor's general account.

(4) Place for filing monitoring and verification reports. The monitoring and verification report shall be filed with the same participating state that issued the consistency determination for the offset project pursuant to subsection (c)(12) of this section.

(5) Deadlines for submittal of monitoring and verification reports.

(A) For CO_2 emissions offset projects undertaken prior to January 1, 2009, the project sponsor shall submit the monitoring and verification report covering the pre-2009 period no later than June 30, 2009; and

(B) For CO_2 emissions offset projects undertaken on or after January 1, 2009, the monitoring and verification report shall be submitted not later than 6 months following the completion of the last calendar year during which the offset project achieved CO_2 equivalent reductions or sequestration of CO_2 for which the project sponsor seeks the award of CO_2 offset allowances.

(6) Contents of monitoring and verification reports. For an offset project, the monitoring and verification report shall include the following information:

(A) The project's sponsor's name, address, e-mail address, telephone number, facsimile transmission number, and account number;

(B) The CO_2 emissions reduction or CO_2 sequestration determination as required by the relevant provisions of this section, including a demonstration that the project sponsor complied with the required quantification, monitoring, and verification procedures under this section, as well as those outlined in the consistency application approved pursuant to subsection (c)(12) of this section;

(C) The following statement signed by the offset project sponsor:

"The undersigned project sponsor hereby confirms and attests that the offset project upon which this monitoring and verification report is based is in full compliance with all of the requirements of Section 22a-174-31a of the Regulations of Connecticut State Agencies. The project sponsor holds the legal rights to the offset project, or has been granted the right to

act on behalf of a party that holds the legal rights to the offset project. I understand that eligibility for the award of CO_2 offset allowances under Section 22a-174-31a of the Regulations of Connecticut State Agencies is contingent on meeting the requirements of said section. I authorize the commissioner or the commissioner's designee to audit this offset project for purposes of verifying that the offset project, including the monitoring and verification plan, has been implemented as described in the consistency application that was the subject of a consistency determination by the commissioner or the commissioner's designee. I understand that this right to audit shall include the right to enter the physical location of the offset project. I submit to the legal jurisdiction of the State of Connecticut."; and

(D) A verification report and certification statement signed by an independent verifier accredited pursuant to subsection (i) of this section documenting that the independent verifier has reviewed the monitoring and verification report and evaluated the following in relation to the applicable requirements of this section, and any applicable guidance issued by the commissioner or the commissioner's designee. Such verification report and certification statement shall also include:

(i) A statement of the adequacy and validity of information supplied by the project sponsor to determine CO_2 emissions reductions or CO_2 sequestration pursuant to the applicable requirements of this section;

(ii) A statement of the adequacy and consistency of methods used to quantify, monitor, and verify CO_2 emissions reductions and CO_2 sequestration in accordance with the applicable requirements of this section and as outlined in the consistency application approved pursuant to subsection (c)(12) of this section; and

(iii) Such other evaluations and verification reviews as may be required by the commissioner or the commissioner's designee to determine the adequacy and validity of information supplied by the project sponsor and to demonstrate that the offset project meets the applicable eligibility requirements of this section;

(E) Disclosure of any voluntary or mandatory programs, other than the CO_2 Budget Trading Program, to which greenhouse gas emissions data related to the offset project has been, or will be reported; and

(F) For offset projects located in a state or United States jurisdiction that is not a participating state, a demonstration that the project sponsor has complied with all requirements of the cooperating regulatory agency in the state or United States jurisdiction where the offset project is located.

(7) Commissioner action on monitoring and verification reports. The commissioner or the commissioner's designee shall approve or deny, with or without conditions, a complete monitoring and verification report not later than 90 days following receipt of a complete report.

(Adopted effective July 23, 2008)

Sec. 22a-174-32. Reasonably available control technology (RACT) for volatile organic compounds

(a) **Definitions.** For the purposes of this section:

(1) "Aerospace manufacturing and rework operations" means the production or repair of aerospace vehicles or components thereof under any of the following Standard Industrial Classification Codes: 3720, 3721, 3724, 3728, 3760, 3761, 3764, 3769, 4512, 4581, or 9711.

(2) "Aerospace vehicle or component" means any fabricated part, processed part, assembly of parts, or completed unit of any aircraft including, but not limited to, airplanes, helicopters, missiles, rockets, and space vehicles.

(3) "Antique aerospace vehicle or component" means an aircraft or component thereof which is at least thirty years of age and is no longer routinely used in the original commercial or military service capacity.

(4) "CTG" or "control techniques guideline" means a document published by the Administrator in accordance with sections 108, and 183(a) and (b) of the Clean Air Act (42 U.S.C. section 7401, et seq.) describing techniques for controlling volatile organic compound (VOC) emissions.

(5) "Space vehicle" means a man-made vehicle, either manned or unmanned, designed for operation beyond the atmosphere of the Earth, including but not limited to, models, prototypes, molds, tooling, hardware, and any auxiliary equipment associated with the testing, transportation and storage of such vehicle.

(6) "System to capture and control" means a system to capture, convey and control VOC emissions released by VOC-emitting equipment, including any device that destroys, recovers, or otherwise removes VOC emissions and permanently reduces VOC emissions into the atmosphere.

(7) "Uncontrolled VOC emissions" means VOC emissions prior to the application of a system to capture and control such VOC emissions.

(8) "Volatile organic compound" or "VOC" has the same meaning as in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(9) "VOC-emitting equipment" means any equipment, building, or activity that results in the emission of volatile organic compounds through a stack or as fugitive emissions.

(10) "Wood furniture" means any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particle board that is manufactured under any of the following Standard Industrial Classification Codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, or 5712.

(11) "Wood furniture component" means any part that is used in the manufacture of wood furniture, including but not limited to, drawer slides, cabinet doors, seat cushions, and laminated tops.

(12) "Wood furniture manufacturing operations" means the finishing, cleaning and wash off operations associated with the production of wood furniture, or wood furniture components.

(b) **Applicability.**

(1) Subject to the limitations set forth in subdivision (4) of this subsection, the provisions of this section shall apply to:

(A) except as provided in subparagraphs (C) and (D) of this subdivision, the owner or operator of a premises with potential VOC emissions of fifty (50) tons or more per calendar year in a serious nonattainment area for ozone;

(B) except as provided in subparagraphs (C) and (D) of this subdivision, the owner or operator of a premises with potential VOC emissions of twenty-five (25) tons or more per calendar year in a severe nonattainment area for ozone;

(C) the owner or operator of wood furniture manufacturing operations with potential VOC emissions of twenty-five (25) tons or more per calendar year; or

(D) the owner or operator of aerospace manufacturing and rework operations with potential VOC emissions of twenty-five (25) tons or more per calendar year.

(2) When calculating potential emissions for the purposes of this section, any limitation on the capacity of a source to emit VOCs, including air pollution control equipment, or any restriction which limits maximum rated capacity shall be treated as part of the design of the source, only if such limitation or restriction or the effect that such limitation or restriction would have on VOC emissions is federally enforceable.

(3) When calculating potential emissions to determine the applicability of this section, the owner or operator of a premises shall include potential emissions of volatile organic compounds from all sources located at such premises excluding those sources which are:

(A) subject to regulation under 40 CFR 61 and 63;

(B) required to use Best Available Control Technology or Lowest Achievable Emission Rate for VOCs pursuant to a federally enforceable order or permit which contains specific VOC emission limitations;

(C) subject to regulation under 40 CFR 264, Subparts AA or BB, or 40 CFR 265, Subparts AA or BB;

(D) fuel burning equipment; or

(E) subject to Reasonably Available Control Technology required pursuant to:

(i) any one of the following subsections of section 22a-174-20 of the Regulations of Connecticut State Agencies: (a), (b), (*l*) through (y), or (ff) through (jj),

(ii) section 22a-174-30a of the Regulations of Connecticut State Agencies, or

(iii) an order or permit requiring the implementation of Reasonably Available Control Technology issued by the commissioner prior to November 15, 1992 and approved by the Administrator prior to May 31, 1995.

(4) Except for subparagraph (B) of subdivision (d)(2) and subsections (f) and (g) of this section, no other provisions of this section shall apply to the owner or operator of VOC emitting equipment which is identified in, or subject to any requirement set forth in, subparagraphs (A) through (E) of subdivision (3) of this subsection.

(c) **Individual permits, general permits or orders to limit VOC emissions.**

(1) The commissioner may issue an individual permit, general permit or order in lieu of requiring one of the Reasonably Available Control Technology methods required by

subdivision (e)(1) of this section when the owner or operator of a premises demonstrates to the commissioner's satisfaction that actual emissions of VOCs from such premises did not exceed, in every calendar year after December 31, 1995:

(A) except as provided in subparagraph (C) of this subdivision, fifty (50) tons per calendar year in a serious nonattainment area for ozone;

(B) except as provided in subparagraph (C) of this subdivision, twenty-five (25) tons per calendar year in a severe nonattainment area for ozone; or

(C) twenty-five (25) tons per calendar year at a premises which conducts wood furniture manufacturing operations or aerospace manufacturing and rework operations.

(2) An owner or operator of a premises who seeks to demonstrate that actual emissions do not exceed the levels specified in subdivision (1) of this subsection shall, at a minimum, submit to the commissioner written documentation of the actual emissions from such premises for every calendar year, or portion thereof, from December 31, 1995 through the calendar year in which such information is submitted. The commissioner may require the submittal of documentation of actual emissions from another period of time in order to determine representative actual emissions. Such owner or operator shall also submit a report which includes the information specified in subparagraphs (B) through (E), inclusive, of subdivision (d)(2) of this section.

(3) If the commissioner issues an individual permit, general permit or order pursuant to this subsection, such permit or order shall require that the emissions of VOCs from a premises not exceed the VOC emissions levels set forth in subdivision (1) of this subsection or a level established by the Administrator in a final CTG. The commissioner shall submit such individual permit, general permit or order to the Administrator for approval in accordance with the provisions of 42 U.S.C. 7401-7671, et seq. The commissioner shall require a permittee or any person subject to an order of the commissioner under this subdivision to make and keep records, as may be necessary, to demonstrate compliance with the emission limitations set forth in subdivision (1) of this subsection.

(4) Nothing herein shall require the commissioner to issue an individual permit, general permit or order under this subsection.

(d) **Compliance plans.**

(1) In order to demonstrate compliance with the provisions of this section, the owner or operator of a premises subject to this section shall submit to the commissioner in writing a compliance plan for review and written approval or denial. Such compliance plan shall be submitted no later than:

(A) May 1, 1994 for premises subject to this section on or before April 19, 1994;

(B) May 1, 1995 for premises subject to this section from April 20, 1994 through the effective date of this section; or

(C) six months after becoming subject to the provisions of this section.

(2) A compliance plan submitted in accordance with subdivision (1) of this subsection, shall include:

(A) a description of the Reasonably Available Control Technology method that the owner

or operator shall perform pursuant to subdivision (e)(1) of this section;

(B) a description of each and every piece of VOC-emitting equipment at such premises;

(C) the maximum rated capacity of each piece of VOC-emitting equipment;

(D) the total amount of potential emissions of VOCs, expressed in tons per year; and

(E) a certification, signed by the person who prepared the compliance plan, the owner of the premises, and the operator of the premises, each of whom shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this compliance plan and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under Section 22a-175 of the General Statutes, under Section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

(3) The owner or operator of a premises who proposes to install a system to capture and control VOCs pursuant to subparagraph (A) of subdivision (e)(1) of this section shall also include in the compliance plan the following:

(A) a description of such system to capture and control; and

(B) a schedule for installing such system.

(4) The owner or operator of a premises reducing VOC use and VOC emissions pursuant to subparagraph (B) of subdivision (e)(1) of this section shall also include in the compliance plan the following:

(A) with respect to each coating used at a premises during the preceding calendar year, the following information:

(i) the name and address of the coating manufacturer,

(ii) the coating name and identification number,

(iii) the coating density, in pounds per gallon,

(iv) the percent VOC content by weight,

(v) the water and exempt percent VOC content by weight,

(vi) the solids content by volume and by weight in pounds,

(vii) the amount of each coating used, in gallons,

(viii) the total amount of diluent used for each coating, in pounds and in gallons, and

(ix) the coating viscosity in pounds VOC per pounds solid, or in kilograms VOC per kilogram solid;

(B) a calculation of the weighted arithmetic mean of the VOC content of all coatings used at the premises during the preceding calendar year, expressed in terms of pounds of VOCs per gallon of solids; and

(C) to demonstrate compliance with subparagraph (B) of subdivision (e)(1) of this section, the owner or operator shall submit the following information with respect to each coating planned for use:

(i) the name and address of the coating manufacturer,

(ii) the coating name and identification number,

(iii) the coating density, in pounds per gallon,

(iv) the percent VOC content by weight,

(v) the percent water and percent exempt VOC content by weight,

(vi) the solids content by volume and by weight in pounds,

(vii) the total amount of diluent proposed to be used for each coating, in pounds and in gallons, and

(viii) the coating viscosity in pounds VOC per pounds solid;

(5) The owner or operator of a premises using alternative emission reductions or emission reduction credits pursuant to subparagraph (C) of subdivision (e)(1) of this section shall also include in the compliance plan the following:

(A) the information required pursuant to section 22a-174-20(cc) of the Regulations of Connecticut State Agencies; or

(B) a proposed plan to purchase emission reduction credits.

(6) The owner or operator of a premises using the alternative compliance plan method pursuant to subparagraph (D) of subdivision (e)(1) of this section shall submit such alternative compliance plan for the commissioner's review and written approval or denial. The alternative compliance plan, in addition to meeting the requirements of subdivision (2) of this subsection and the applicable provisions set forth in subdivisions (3) through (5), inclusive, of this subsection, shall also include the following:

(A) an examination of the technological and economic feasibility of additional VOC control devices or equipment on all sources of VOCs, including those sources identified in subdivision (b)(3) of this section;

(B) an examination of the feasibility of changing to low VOC-emitting processes including establishing a leak detection program;

(C) the proposed amount of VOC reduction from all subject VOC-emitting equipment at the premises;

(D) an examination of the feasibility of obtaining emission reduction credits pursuant to section 22a-174-20(cc) of the Regulations of Connecticut State Agencies, or of the feasibility of using alternative emission reductions to achieve equivalent levels of control as required by subparagraphs (A) or (B) of subdivision (e)(1) of this section;

(E) a description of any research that will be conducted by the owner or operator to further reduce VOC emissions beyond the level of emissions proposed; and

(F) any other information the commissioner may require.

(7) In lieu of submitting a compliance plan in accordance with the provisions of this subsection and in lieu of installing one of the Reasonably Available Control Technology methods pursuant to subdivision (e)(1) of this section, the commissioner may allow the

owner or operator of a premises to meet the requirements of this section by permit or order, provided such permit or order implements the recommended CTG or emissions limitations of a final CTG for any source category identified in the Federal Register on April 28, 1992 (57 Fed. Reg. 18077, App. E), and such permit or order is submitted by the commissioner to the Administrator for approval in accordance with the provisions of 42 U.S.C. 7401-7671, et seq.

(8) Notwithstanding the provisions of subdivision (7) of this subsection, nothing herein shall require the commissioner to issue such permit or order.

(e) **Reasonably Available Control Technology methods.**

(1) One year after becoming subject to the provisions of this section, the owner or operator of a premises subject to the requirements of this section shall perform at least one of the following Reasonably Available Control Technology methods:

(A) install and operate pursuant to subdivision (2) of this subsection a system to capture and control VOCs;

(B) implement a program of reformulation or process change pursuant to subdivision (3) of this subsection to reduce VOC use and VOC emissions;

(C) use alternative emission reductions or emission reduction credits, pursuant to subdivision (4) of this subsection, in accordance with a permit or order issued by the commissioner; or

(D) implement an alternative compliance plan pursuant to subdivision (5) of this subsection, in accordance with a permit or order issued by the commissioner.

(2) When the owner or operator of a premises installs and operates a system to capture and control VOC emissions, then:

(A) such system shall reduce VOC emissions to the atmosphere from any VOC emitting equipment which is subject to the provisions of this section by at least eighty-five percent (85%) of uncontrolled emissions;

(B) such system, if designed to destroy VOCs by incineration, shall oxidize into carbon dioxide and water at least ninety-five percent (95%) of the non-methane VOCs, measured as total combustible carbon, which enter the incinerator each hour; and

(C) such system, if designed to recover or otherwise remove VOCs, shall be operated so that the VOC mass emission rate leaving the outlet does not exceed ten percent (10%), in the aggregate, of the VOC mass emission rate entering such system.

(3) When the owner or operator of a premises reformulates or changes a process or processes to reduce actual VOC use and VOC emissions, such reformulation or change shall achieve, for each coating or VOC-emitting equipment used and on each day that VOCs are emitted, an eighty percent (80%) reduction in VOC emissions from the weighted arithmetic mean during calendar year 1990 or another year the commissioner deems as more representative of the actual operating conditions or actual emissions calculated pursuant to subparagraph (B) of subdivision (d)(4) of this section.

(4) The owner or operator of a premises subject to a final CTG shall comply with the requirements of such final CTG, in accordance with subdivision (d)(7), where such final

CTG achieves a greater reduction in VOCs than the requirements of subdivisions (2) or (3) of this subsection.

(5) When an owner or operator of a premises uses either alternative emission reductions pursuant to section 22a-174-20(cc) of the Regulations of Connecticut State Agencies or emission reduction credits, equivalent emission reductions to those required by subparagraph (B) of subdivision (2) of this subsection shall be achieved. In addition, any such use or purchase of emission reduction credits shall be consistent with the United States Environmental Protection Agency's "Economic Incentive Program Rules; Final Rule," of April 7, 1994 (59 Fed. Reg. 16690), and the United States Environmental Protection Agency's "Emission Trading Policy Statement" of December 4, 1986 (51 Fed. Reg. 43814). The commissioner may only allow the use of either alternative emission reductions pursuant to section 22a-174-20(cc) of the Regulations of Connecticut State Agencies or emission reduction credits through the issuance of a permit or order. The commissioner shall submit such permit or order to the Administrator for approval in accordance with the provisions of 42 U.S.C. 7401-7671, et seq. Nothing herein shall require the commissioner to issue such permit or order.

(6) The commissioner may issue a permit or order to the owner or operator of a premises requiring the implementation of an alternative compliance plan when it is demonstrated, to the commissioner's satisfaction, through the information submitted pursuant to subdivision (d)(2) and (d)(6) of this section, that compliance with subparagraphs (1)(A) through (1)(C) of this subsection, inclusive, is not technologically or economically feasible. Such permit or order shall specify that the implementation of the approved alternative compliance plan shall be Reasonably Available Control Technology for such premises. Such owner or operator shall implement the alternative compliance plan by the date specified in the permit or order, which date shall be no later than ninety days after issuance of such permit or order. In issuing such a permit or order the commissioner may consider the VOC emissions and the VOC emission reductions made at the premises after 1986. The commissioner shall submit such permit or order to the Administrator for approval in accordance with the provisions of 42 U.S.C. 7401-7671, et seq.

(7) Notwithstanding the provisions of subdivision (6) of this subsection, nothing herein shall require the commissioner to issue such permit or order.

(f) **Test Methods.**

(1) Upon written notification that the commissioner shall require emissions testing to demonstrate compliance with this section or any permit or order issued hereunder, the owner or operator of a premises shall conduct such testing in accordance with such notification and section 22a-174-5 of the Regulations of Connecticut State Agencies.

(2) Where an owner or operator uses a system to capture and control VOC emissions pursuant to subparagraph (A) of subdivision (e)(1) of this section, compliance with this section shall be demonstrated by using the sampling and analytical procedures set forth in 40 CFR Part 60, Appendix A or 40 CFR Part 52.741, Appendix B.

(3) Where an owner or operator uses any Reasonably Available Control Technology

methods pursuant to subparagraphs (B) through (D) inclusive of subdivision (e)(1) of this section, the commissioner may require compliance with this section be demonstrated by:

(A) using sampling and analytical procedures set forth in 40 CFR Part 60, Appendix A;

(B) using a mass balance procedure based on known quantities of materials purchased, stored in inventory, and/or reclaimed using good engineering practice, as approved by the commissioner; or

(C) using other methods or procedures approved by the Administrator.

(g) **Record keeping.**

(1) After December 31, 1996, the owner or operator of a premises shall maintain for at least five years at such premises, and make available at such premises for the commissioner's inspection upon demand, the following:

(A) purchase records for all materials which are used or stored at such premises which contain VOCs;

(B) for any VOC emissions resulting from coating operations, records of the name of each coating, the coating density expressed in pounds per gallon or pounds per unit, the percent VOC content by weight of each coating, the percent solids content by weight, the water and exempt VOC content of each coating by weight, the amount of each coating used in gallons, the total amount of diluent used for each coating in pounds and in gallons, and the coating viscosity in pounds VOC per pounds solid or in kilograms VOC per kilogram solids; and

(C) the results of any VOC emissions testing performed pursuant to subsection (f) of this section.

(2) The owner or operator of a premises shall make, keep and maintain for at least five years at such premises any other records required to kept by an individual permit, general permit or order.

(Effective November 18, 1993; Amended August 27, 1999; Amended April 6, 2010; Amended July 8, 2015)

Sec. 22a-174-33. Title V sources

(a) **Definitions**. For the purposes of this section:

(1) "Alternative operating scenario" means a condition, including equipment configurations, process parameters, or materials used in a process under which the owner or operator of a Title V source may be allowed to operate.

(2) "Applicable requirements" means:

(A) Any standard or other requirement in the State implementation plan or in a federal implementation plan for the State of Connecticut promulgated by the Administrator pursuant to the Act;

(B) Any term or condition of a permit issued pursuant to former section 22a-174-3 or section 22a-174-3a of the Regulations of Connecticut State Agencies;

(C) Any standard or other requirement of the acid rain program pursuant to 40 CFR Parts 72 to 78, inclusive; and

(D) Any standard or other requirement pursuant to 40 CFR 51, 52, 59, 60, 61, 62, 63, 64, 68, 70, OR 82.

(3) "Code of Federal Regulations" or "CFR" means the Code of Federal Regulations as amended from time to time.

(4) "Deviation" means "deviation" as defined in 40 CFR 71.6(a)(3)(iii)(C).

(5) Reserved.

(6) "Implementation date of this section" means April 23, 1997.

(7) "Regulated air pollutant" means any of the following:

(A) Nitrogen oxides or any volatile organic compound;

(B) Any pollutant which is a criteria air pollutant as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;

(C) Any pollutant emitted by a stationary source which is subject to any standard of performance for new stationary sources pursuant to 40 CFR 60;

(D) Any pollutant from a substance subject to a stratospheric ozone protection requirement pursuant to 40 CFR 82, Subpart A, Appendix A or B;

(E) Any pollutant subject to a national emission standard or other requirement pursuant to 40 CFR 63, and emitted by a source in a category listed in the Federal Register in accordance with section 112(e)(3) of the Act;

(F) Any pollutant from a stationary source which is subject to any standard or other requirement pursuant to 40 CFR 61;

(G) Any pollutant listed in 40 CFR 68; or

(H) Greenhouse gases from a stationary source that is a major stationary source for a regulated air pollutant that is not a greenhouse gas.

(8) "Research and development operation" means any activity which:

(A) Occurs in a laboratory;

(B) Is intended to (i) discover scientific facts, principles or substances, or (ii) establish methods of manufacture or design of saleable substances, devices or other products, based upon previously discovered scientific facts, principles or substances; and

(C) Does not include (i) production for sale of established products through established processes, or (ii) production of a product for distribution through market testing channels.

(9) "Title V permit" means any permit issued, renewed, or modified by the commissioner pursuant to this section.

(10) "Title V source" means any premises at, in, or on which any of the following is located:

(A) Any stationary source subject to 40 CFR 60 or 61;

(B) Any stationary source subject to 40 CFR 62, 63 or 68;

(C) Any stationary source subject to 40 CFR 72 to 78, inclusive;

(D) Any stationary source subject to section 129(e) of the Act;

(E) Any one or more stationary sources, which are located on one or more contiguous or adjacent properties under the control of the same person or persons and which in the aggregate emit, or have the potential to emit, including fugitive emissions, ten (10) tons or

more per year of any hazardous air pollutant, or twenty-five (25) tons or more per year of any combination of hazardous air pollutants; or

(F) Any one or more stationary sources, which are located on one or more contiguous or adjacent properties under the control of the same person or persons and which belong to the same two-digit Standard Industrial Classification code, as published by the United States Office of Management and Budget in the Standard Industrial Classification Manual of 1987, and which in the aggregate emit, or have the potential to emit any air pollutant, including fugitive emissions, from those categories of sources listed in subdivision (2) in the definition of "major source" in 40 CFR 70.2 as of August 2, 2010, of:

(i) one hundred (100) tons or more per year of any regulated air pollutant that is not a GHG,

(ii) fifty (50) tons or more per year of volatile organic compounds or nitrogen oxides in a serious ozone non-attainment area, or

(iii) twenty-five (25) tons or more per year of volatile organic compounds or nitrogen oxides in a severe ozone non-attainment area; and

(G) Notwithstanding the provisions of subparagraph (F) of this subdivision, any landfill containing only municipal solid waste, as that term is defined in section 22a-207(23) of the Connecticut General Statutes, shall not be considered a Title V source unless such landfill is subject to any applicable requirement identified in subparagraph (B) or (D) of this subdivision.

(b) **Signatory Responsibilities**.

An application for a Title V permit, any form, report, compliance certification or other document required by a Title V permit, and any other information submitted by an owner or operator or a permittee pursuant to this section shall be signed in accordance with section 22a-174-2a(a) of the Regulations of Connecticut State Agencies.

(c) **Applicability**.

(1) The provisions of this section shall apply to the owner or operator of every Title V source.

(2) Notwithstanding subdivision (1) of this subsection and except as provided in subdivision (3) of this subsection, this section shall not apply to any premises which is defined as a Title V source solely because a stationary source on such premises is subject to one or more of the following:

(A) Standard of performance for new residential wood heaters pursuant to 40 CFR 60, Subpart AAA;

(B) 40 CFR 61.145;

(C) Accidental release requirements pursuant to 40 CFR 68; or

(D) 40 CFR 60, 61, 63, 68 or 72, if such source is exempt or deferred from the requirement to obtain a Title V permit:

(i) by the terms of the applicable CFR,

(ii) by the terms of 40 CFR 70,

(iii) by the Administrator, or

(iv) with the Administrator's authorization, by the commissioner.

(3) Notwithstanding the definition of a Title V source set forth in subsection (a) of this section, for the purpose of determining whether this section applies to a premises at which research and development operations are located, the owner or operator of such premises may calculate the emissions from such premises by subtracting the emissions from such research and development operations from the total emissions of such premises. The emissions from the remainder of such premises and research and development operations shall be separately evaluated by the commissioner for purposes of determining whether Title V permits are required for each portion of such premises.

(4) If the commissioner or administrator determines that the owner or operator of any Title V source that is subject to a Title V general permit issued under this section has not complied with such general permit, such noncompliance shall be a violation of this section and such owner or operator shall be deemed to have been operating a Title V source without a Title V permit.

(5) If the commissioner or administrator determines that the owner or operator of any Title V source that is subject to a Title V general permit issued under this section has not qualified for applicability under such general permit, such noncompliance shall be a violation of this section and such owner or operator shall be deemed to have been operating a Title V source without a Title V permit.

(d) **Limitations on Potential to Emit.**

(1) In lieu of requiring an owner or operator of a Title V source described in subsection (a)(10)(E) or (F) of this section to obtain a Title V permit, the commissioner may, by permit or by order, limit all aggregate potential emissions of regulated air pollutants from such premises to less than the following amounts:

(A) One hundred (100) tons per year of any regulated air pollutant;

(B) Fifty (50) tons per year of volatile organic compounds or nitrogen oxides, in a serious ozone nonattainment area;

(C) Twenty-five (25) tons per year of volatile organic compounds or nitrogen oxides, in a severe ozone nonattainment area; or

(D) Ten (10) tons per year of any hazardous air pollutant, twenty-five (25) tons per year of any combination of hazardous air pollutants, or the quantity established by the Administrator pursuant to 40 CFR 63.

(2) A permit or order issued pursuant to this subsection shall require the owner or operator of the subject premises to:

(A) Limit potential emissions at such premises to less than the amounts specified in subparagraphs (A) to (D), inclusive, of subdivision (1) of this subsection;

(B) Conduct monitoring, recordkeeping, or a combination of monitoring and recordkeeping sufficient to ensure compliance with such permit;

(C) Maintain all records required by such permit or order at the premises for five (5) years after the creation of such records and make such records available, upon request, to the commissioner;

(D) Submit compliance certifications to the commissioner pursuant to subdivision (q)(2) of this section; and

(E) Comply with every term, emission limitation, condition, or other requirement of such permit or order, including the requirements that the terms, limitations and conditions of such permit or order are binding and legally enforceable, and that the emissions allowed are quantified.

(3) A permit or order shall not be issued pursuant to this subsection, and any such permit or order shall not be federally enforceable, unless the commissioner:

(A) Requires to owner or operator of a subject premises to comply with each provision of subdivision (2) of this subsection;

(B) For a general permit, complies with the requirements for notice and opportunity for public comment pursuant to section 22a-174 of the Connecticut General Statutes;

(C) For an individual order, sends a copy of a notice to those listed in subparagraph (D)(i) to (vi), inclusive, of this subdivision, and, at least thirty (30) days before approving or denying a proposed order under this subsection, publishes or causes to be published, at the respondent's expense, once in a newspaper having substantial circulation in the affected area, such notice of the proposed order regarding the subject premises. In addition, the commissioner may require the owner or operator to publish such notice in other media and in languages other than English. Such notice shall contain the following:

(i) the name and mailing address of the owner or operator of the subject premises and the address of the location of the proposed activity,

(ii) the draft order number,

(iii) the summary of the draft order provisions regarding the proposed activity,

(iv) the type of authorization sought, including a reference to the applicable statute or regulation,

(v) a description of the location of the proposed activity and any natural resources affected thereby,

(vi) the name, address and telephone number of any agent of the owner or operator from whom interested persons may obtain copies of the draft order,

(vii) a brief description of all opportunities for public participation provided by statute or regulation, including the length of time available for submission of public comments to the commissioner on the draft order, and

(viii) such additional information as the commissioner deems necessary to comply with any provision of the Regulations of Connecticut State Agencies or with the Act; and

(D) For a tentative determination regarding a permit application under this subsection, other than a general permit, sends a copy of the notice required by section 22a-6h of the Connecticut General Statutes to those identified in, and as required by, section 22a-174-2a(b)(5)(A) to (G) inclusive, of the Regulations of Connecticut State Agencies.

(4) Following receipt of a request for a public hearing pursuant to section 22a-174-2a(c)(6) of the Regulations of Connecticut State Agencies, the commissioner shall publish a notice of such public hearing at the owner or operator's expense in a newspaper of general

circulation in the affected area at least thirty (30) days prior to such hearing. In addition, the commissioner may require the owner or operator to publish such notice in other media and in languages other than English.

(5) The commissioner shall not issue any permit or order pursuant to this subsection which waives or makes less stringent any limitation, standard or requirement contained in or issued pursuant to the State implementation plan or that is otherwise federally enforceable, including any standard established in 40 CFR 63.

(6) The commissioner shall provide the Administrator with a copy of any general permit issued pursuant to this subsection.

(7) Notwithstanding a permit or order issued pursuant to subdivision (1) of this subsection, the owner or operator of any premises subject to this section shall pay the department all fees required by section 22a-174-26 of the Regulations of Connecticut State Agencies.

(8) Notwithstanding the provisions of section 22a-174(*l*) of the Connecticut General Statutes, the commissioner shall not issue a general permit covering a stationary source subject to any standard or other requirement pursuant to 40 CFR 72 to 78, inclusive.

(9) If the commissioner or administrator determines that the owner or operator of any premises that is subject to a general permit issued under this section has not qualified for applicability under such general permit, such noncompliance shall be a violation of this section and such owner or operator shall be deemed to have been operating a Title V source without a Title V permit.

(10) If the commissioner or administrator determines that the owner or operator of any premises that is subject to a permit or order issued under this subsection has not complied with the terms or conditions of such permit or order, such noncompliance shall be a violation of this section and such owner or operator shall be deemed to have been operating a Title V source without a Title V permit.

(11) The commissioner shall submit this subsection for approval by the administrator pursuant to Title I of the Act to authorize the issuance of federally enforceable state operating permits in lieu of Title V permits. Any permit issued under this subsection shall not be deemed a Title V permit.

(e) **MACT and Acid Rain Requirements.**

(1) If the administrator fails to promulgate a MACT standard for a category of sources consistent with the deadline pursuant to section 112(j)(2) of the Act, then the commissioner shall determine a MACT standard for such category of sources. The commissioner shall determine such MACT standard in the same manner as is required of the Administrator pursuant to section 112(d)(3) of the Act. In no event shall such a standard allow emissions of any hazardous air pollutant that would exceed the emissions allowed by an applicable standard pursuant to 40 CFR 63.

(2) Within three (3) years of the commissioner's determination of a MACT standard for a category of sources or upon notice from the commissioner to the owner or operator of the source, whichever is earlier, the owner or operator of a source with respect to which the

commissioner has determined a MACT standard shall comply with such MACT standard.

(3) The owner or operator of a Title V source shall comply with the applicable provisions of 40 CFR 72 to 78, inclusive. If any such provision is stricter than a similar provision of an applicable permit issued pursuant to this section, the stricter provision shall prevail.

(f) **Timetable For Submitting An Application For A Title V Permit**.

(1) The owner or operator of a Title V source which is subject to this section shall not be required to apply for a Title V permit before the implementation date of this section. After such date, the owner or operator of such a source shall apply for a Title V permit within ninety (90) days of receipt of notice from the commissioner that such application is required or by the date specified by such notice, whichever is earlier. If such owner or operator does not receive such notice, such owner or operator shall apply for such permit within nine (9) months of the implementation date of this section.

(2) Except as provided in subdivision (3) of this subsection, the owner or operator of a Title V source shall apply for a Title V permit within ninety (90) days of receipt of notice from the commissioner that such application is required or twelve (12) months after becoming subject to this section, whichever is earlier.

(3) The owner or operator of a Title V source which is subject to this section solely pursuant to a standard in 40 CFR 60 or 61, shall apply for a Title V permit within ninety (90) days of receipt of notice from the commissioner that such application is required or as provided for by the administrator, whichever is earlier.

(4) The owner or operator of a new major stationary source or a major modification to an existing major stationary source to whom a Title V permit has not been issued and who is required to obtain a permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies shall apply for a Title V permit within ninety (90) days of receipt of notice from the commissioner that such Title V permit is required or within twelve (12) months of commencing operation under a permit issued pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies, whichever is earlier.

(5) Application for renewal of a Title V permit shall be made no later than twelve (12) months prior to the date of expiration of the Title V permit.

(6) Reserved.

(g) **Title V Permit Applications**.

(1) An application for a Title V permit shall be made on forms prescribed by the commissioner. The application shall contain the following:

(A) The legal name and business address of the applicant and of the applicant's agent for service of process and, if the applicant is not the owner of the subject source, the legal name and business address of such owner and of the owner's agent for service of process, and names and telephone numbers of the plant site manager and other individuals designated by the applicant to answer questions pertaining to such application;

(B) All information required by section 22a-3a-5 of the Regulations of Connecticut State Agencies, including an executive summary;

(C) A compliance plan pursuant to subsection (i) of this section meeting the requirements

of 40 CFR 70.5(c)(8);

(D) A compliance certification pursuant to subsection (q)(2) of this section meeting the requirements of 40 CFR 70.5(c)(9);

(E) The information required by this subsection for each alternative operating scenario that the applicant has included in the Title V permit application;

(F) An identification and description of any alternative means of compliance with sections 22a-174-22e or 22a-174-32 of the Regulations of Connecticut State Agencies issued by order, permit or certification. In addition, a copy of such order, permit or certification shall be submitted with the application; and

(G) A certification pursuant to section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies.

(2) For the purpose of determining the applicability of this section pursuant to subsection (c) of this section, to impose any applicable requirement, or to determine compliance with any applicable requirement, an application for a Title V permit shall provide the following information about the subject Title V source:

(A) For each alternative operating scenario proposed, a description of the processes utilized, the standard industrial classification code, identification of each emission unit involved, as well as its throughput, hours of operation and capacity for the calendar year prior to the year of application or such other time period as the commissioner deems appropriate;

(B) For each regulated air pollutant emitted or proposed to be emitted by the subject source, the amount of potential and actual emissions from such source during the time period specified in subparagraph (A) of this subdivision; such emissions shall be expressed in tons per year and in such terms as are necessary to demonstrate compliance with the applicable standard reference test method, if any;

(C) The methodology used by the applicant to quantify emissions, in such terms as are necessary to determine compliance with the applicable standard reference test method, if any, the potential and actual emissions referred to in subparagraph (B) of this subdivision, and the emission rates in tons per year of each regulated air pollutant emitted or proposed to be emitted by the subject Title V source;

(D) The calculations used by the applicant to determine whether such source is a Title V source to which this section applies;

(E) A description of all air pollution control equipment used at the subject Title V source and a description of all monitoring equipment used at the subject Title V source to quantify emissions or to determine compliance with any applicable requirement;

(F) For each regulated air pollutant emitted or proposed to be emitted by the subject Title V source, a description of any operational limitations or work practices in effect at such source which affect emissions at the time the application is submitted or a description of the work practices to be implemented which will affect proposed emissions at a specified later date;

(G) For each emission unit, an identification of all applicable requirements, an

identification and explanation of any exemptions the applicant proposes to exercise from otherwise applicable requirements, and identification of any applicable MACT source category as published in the Federal Register, in accordance with section 112(e)(3) of the Act, including any category which is subject to compliance dates occurring after the effective date of this section;

(H) Any test method to be used by the applicant for determining compliance with each applicable requirement identified pursuant to subparagraph (G) of this subdivision; and

(I) Any other information, required by each applicable requirement identified pursuant to subparagraph (G) of this subdivision.

(3) An application need not contain the information required under subdivisions (1) and (2) of this subsection on those items or activities specified in subparagraphs (A) and (B) of this subdivision.

(A) A laboratory hood used solely for the purpose of experimental study or teaching of any science or testing or analysis of drugs, chemicals, chemical compounds, or other substances, provided that the containers used for reactions, transfers, and other handling of substances under such laboratory hood are designed to be easily and safely manually manipulated by one person; or

(B) Any of the following items or activities which are not the principal function of the subject Title V source:

(i) office equipment, including but not limited to copiers, facsimile and communication equipment, and computer equipment,

(ii) grills, ovens, stoves, refrigerators, vending machines and other restaurant-style food preparation or storage equipment,

(iii) lavatory vents, hand dryers, and noncommercial clothes dryers, not including dry cleaning machinery,

(iv) garbage compactors and waste barrels,

(v) aerosol spray cans,

(vi) heating, air conditioning, and ventilation systems which do not remove air contaminants generated by or released from process or fuel burning equipment and which are separate from such equipment and which are not subject to 40 CFR part 82,

(vii) routine housekeeping activities such as painting buildings, roofing, and paving parking lots,

(viii) all clerical and janitorial activities,

(ix) maintenance activities such as: the mechanical repair of vehicles; the use of brazing, soldering and welding equipment, carpentry, electrical charging, grinding and polishing operations, maintenance shop vents; and miscellaneous non-production surface cleaning, preparation and painting operations, and

(x) space heaters which can reasonably be carried by one person by hand.

(4) Notwithstanding subdivision (3) of this subsection, an application shall include information regarding each activity or item set forth in subparagraphs (A) and (B) of subdivision (3) of this subsection, if necessary to determine whether a premises is a Title V

source or to impose an applicable requirement. In addition, if the commissioner determines the emissions from any activity or items are needed to determine the applicability of this section or to impose any applicable requirement, the applicant shall list on the application such activities or items listed in subparagraphs (A) and (B) of subdivision (3) of this subsection.

(5) An application to renew or modify a Title V permit shall be made on forms prescribed by the commissioner and in accordance with section 22a-174-2a of the Regulations of Connecticut State Agencies. Such application shall include a description of any proposed changes, a proposed permit, any proposed monitoring procedures, any changes in actual emissions resulting from the proposed changes, and an identification of all regulatory, statutory, or otherwise applicable requirements that would become applicable as a result of such changes.

(h) **Title V Application Processing**

(1) An applicant for a Title V permit shall not be liable for failing to obtain such permit, unless:

(A) The commissioner notifies the applicant in writing within sixty (60) days of receipt of a sufficient and timely filed application that the application fails to meet the requirements in subsection (g) of this section or section 22a-3a-5(a)(1) of the Regulations of Connecticut State Agencies; or

(B) The commissioner notifies the applicant in writing subsequent to such sixty (60) days, while processing an application for a Title V permit that additional information is necessary to take final action regarding such application, and the applicant fails to submit such information in writing within forty-five (45) days of such notification.

(2) An applicant for a Title V permit shall submit information to address any requirements that become applicable to the subject source and shall submit correct, complete and sufficient information upon the applicant's becoming aware of any incorrect, incomplete, and or insufficient submittal, during the pendency of the application, or any time thereafter, with an explanation for such deficiency and a certification pursuant to section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies.

(3) The owner or operator of a Title V source shall submit a copy of the application for a Title V permit, or for renewal or modification thereof, and of any compliance plan prepared pursuant to subsection (i) of this section, to the Administrator at the same time such owner or operator submits the application to the commissioner.

(i) **Compliance History, Plans with Schedules and Certifications**.

(1) Each application for a Title V permit shall include:

(A) A compliance history, if required by the commissioner, in accordance with section 22a-6m of the Connecticut General Statutes;

(B) A compliance plan, in accordance with 40 CFR 70.5(c)(8), that describes the compliance status of the Title V source with respect to all applicable requirements and including the following:

(i) With respect to applicable requirements with which the subject source is in

compliance at the time the application is submitted, the applicant shall submit with the application a statement that the owner and operator of such source will continue to comply with such requirements,

(ii) With respect to applicable requirements which will not take effect until after the reasonably anticipated issuance date of the Title V permit sought by the applicant, the applicant shall submit a statement that the owner and operator of such source will comply and continue to comply with such requirements once they are applicable,

(iii) With respect to applicable requirements for which the source is not in compliance at the time of permit issuance, a description of how the owner and operator of such source will achieve compliance with such requirements in accordance with the compliance plan, and

(iv) For each applicable requirement identified in accordance with subparagraphs (B)(ii) and (B)(iii) of this subdivision, a compliance schedule, which shall be at least as stringent as any requirement contained in any final judgment or decree or any administrative order to which the applicant is subject, specifying the dates by which measures will be taken to bring the Title V source into compliance with the applicable requirement;

(C) A compliance certification, which meets the requirements of subsection (q) of this section and 40 CFR 70.5(c)(9), that shall require:

(i) The submission of certified progress reports in accordance with subdivision (q)(1) of this section, and

(ii) The submission of compliance certifications in accordance with subdivision (q)(2) of this section.

(2) The submittal of a compliance schedule pursuant to subdivision (1)(B)(iv) of this subsection shall not preclude the commissioner from imposing a more stringent compliance schedule or taking enforcement action against the owner or operator of the Title V source for such noncompliance.

(3) The compliance plan content required by this subsection shall be included in the acid rain portion of a compliance plan for a Title V source that is also subject to any provision of 40 CFR 72 to 78, inclusive, except as specifically superseded therein.

(j) **Standards for Issuing and Renewing Title V permits**.

(1) Except with respect to an application for a Title V permit for a source subject to a deadline pursuant to 40 CFR 72 to 78, inclusive, within eighteen (18) months of receiving a Title V permit application, and within twelve (12) months of receiving an application to modify or renew a Title V permit, the commissioner shall make a decision to grant or deny such application. The commissioner shall submit a copy of such decision to the Administrator. Failure of the commissioner to act within such period shall not entitle the applicant to permit issuance, modification or renewal of any Title V permit. The commissioner shall not issue a Title V permit, permit modification, or permit renewal to the owner or operator of a Title V source unless the commissioner determines that the subject source is in compliance or will be in compliance with all relevant and applicable requirements and the permit or permit modification contains the following conditions:

(A) An expiration date no later than five (5) years after the date the commissioner issues such permit;

(B) A statement that all of the terms and conditions of the permit shall remain in effect until the renewal permit is issued or denied provided that a timely renewal application is filed in accordance with this section;

(C) A statement that the permittee shall operate the source in compliance with the terms of all applicable regulations, the terms of such permit, and any other applicable provisions of law. In addition, the permit shall state that any noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application;

(D) A statement of the legal authority and technical origin for each permit term or condition, including any difference in form from the applicable requirement upon which the term or condition is based;

(E) A statement identifying which terms or conditions of the permit are federally enforceable and which are enforceable only by the commissioner, and explaining that the federally enforceable provisions, and those not otherwise identified as enforceable only by the commissioner, are enforceable by the Administrator and the citizens under the Act;

(F) If the subject source is required by an applicable requirement to limit emissions of a regulated air pollutant, the permit imposes such limits, provided that, where allowed by such applicable requirement:

(i) such limits are no less than 1,000 pounds per year or any quantity prescribed by 40 CFR 63, whichever is more stringent, for each emission unit, for any hazardous air pollutant, and

(ii) for all other regulated air pollutants such limits are no less than one (1) ton per pollutant per year for each emission unit;

(G) A statement that the permit shall not be deemed to:

(i) preclude the creation or use of emission reduction credits or allowances or the trading thereof in accordance with subparagraphs (I) and (P) of this subdivision,

(ii) authorize emissions of an air pollutant so as to exceed levels that are prohibited pursuant to 40 CFR 72,

(iii) authorize the use of allowances pursuant to 40 CFR 72 to 78, inclusive, as a defense to noncompliance with any applicable requirement, or

(iv) impose limits on emissions from items or activities specified in subparagraphs (A) and (B) of subdivision (g)(3) of this section unless imposition of such limits is required by an applicable requirement;

(H) A statement of all limitations, requirements, and standards that apply to each emission unit. Such statement shall include:

(i) those operational limitations, requirements and standards necessary to assure compliance with all applicable requirements, including 40 CFR 63, and

(ii) any applicable requirement of 40 CFR Part 72 to 78, inclusive;

(I) A statement of all alternative emission limits or means of compliance allowed by the

commissioner. Such alternative emission limits or means shall be quantified, and legally enforceable, and the method for demonstrating compliance with such limits shall be based upon replicable procedures. The permit may contain an emissions limitation facilitating intra-premises emission reduction trades allowed by subsection (r) of this section and any other applicable requirements;

(J) A statement of all terms and conditions applicable to any allowable alternative operating scenario, including a requirement that each such alternative operating scenario shall meet all applicable requirements and not result in adverse effects on public health or the environment;

(K) A requirement that the permittee monitor regulated air pollutants emitted by the subject source to determine compliance with applicable emission limitations and standards. Unless otherwise required by an applicable requirement, such monitoring shall cover items and activities other than those listed in subdivision (g)(3) of this section and other than emissions below the levels of emissions prescribed in subparagraph (1)(F) of this subsection. Such monitoring requirements shall consist of one or more of the following:

(i) all emissions monitoring and analysis procedures or test methods required by applicable requirements, including any procedures and methods required pursuant to 40 CFR Part 70, and

(ii) where an applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring, periodic monitoring or recordkeeping sufficient to yield reliable data during the relevant time period which data is representative of the emissions or parameters required by the permit to be monitored. Recordkeeping shall be sufficient to meet the requirements of this subsection if so determined by the commissioner;

(L) All requirements for emissions monitoring analysis procedures and test methods. Such requirements shall specify to the extent applicable: what monitoring equipment shall be installed and used or the monitoring method that shall be used; maintenance procedures for the monitoring equipment; and units of measurement, averaging periods, and other measurements conventions, consistent with applicable requirements.

(M) A statement that the commissioner may, for the purpose of determining compliance with the permit and other applicable requirements, enter the premises at reasonable times to inspect any facilities, equipment, practices, or operations regulated or required under the permit; to sample or otherwise monitor substances or parameters; and to review and copy relevant records lawfully required to be maintained at such premises in accordance with the permit;

(N) All recordkeeping requirements and all reporting and notification requirements pursuant to subsections (o), (p) and (q) of this section including a requirement that the permittee shall report in writing to the commissioner any deviation in accordance with subsection (p) of this section;

(O) The conditions under which the permit will be reopened prior to the expiration of the permit as identified in 40 CFR 70.7(f)(1)(i) to (iv);

(P) Any terms and conditions necessary to enable the permittee to create, use, and trade

emissions reduction credits or allowances in accordance with sections 22a-174f and 22a-174i of the Connecticut General Statutes, any regulations adopted thereunder, and with the provisions of 40 CFR 51 subpart U. Such terms and conditions, to the extent that the applicable requirements provide for trading without the commissioner's or Administrator's case-by-case approval of each emission trade, shall meet all the applicable requirements;

(Q) A schedule for monitoring, recordkeeping, and reporting with respect to the compliance plan submitted in accordance with subsection (i) of this section;

(R) A severability clause to ensure the continued validity of provisions remaining in the Title V permit if other provisions are legally invalidated;

(S) Any term or condition of any other permit, or registration thereunder, issued to the permittee pursuant to section 22a-174 of the Connecticut General Statutes or any term or condition of any order issued by the commissioner prior to issuance of the Title V permit, modification or renewal thereof;

(T) A statement that it shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit;

(U) A statement that the permit may be modified, revoked, reopened, reissued, or suspended by the Administrator in accordance with 40 CFR 70.7(f), 40 CFR 70.7(g) and 40 CFR 70,6(a)(6)(iii), and that it may be modified, revoked or suspended by the commissioner in accordance with sections 4-182 and 22a-174c of the Connecticut General Statutes, or section 22a-3a-5(d) of the Regulations of Connecticut State Agencies;

(V) A statement that the filing of an application or of a notification of planned changes or anticipated noncompliance does not stay the permittee's obligation to comply with the permit;

(W) A statement that the permit does not convey any property rights or any exclusive privileges;

(X) A requirement that the permittee submit additional information in writing, at the commissioner's request, within thirty (30) days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, or suspending the permit or to determine compliance with the permit;

(Y) The conditions under which the permit will be modified and references to the authority for permit modification; and

(Z) A statement that the owner or operator has paid, and will continue to pay, to the department all fees as required by section 22a-174-26 of the Regulations of Connecticut State Agencies, including those fees due during the term of such permit.

(2) The commissioner shall not issue a Title V permit unless all the requirements of subsections (*l*) and (m) of this section have been complied with.

(3) The commissioner shall make a summary of the legal authority and technical origin of each proposed permit term and condition identified under subdivision (1)(D) of this subsection. The summary shall provide the legal and factual basis for each proposed permit

term or condition.

(4) The commissioner shall send to the administrator, and any individual who so requests it in writing, a copy of the summary required by subdivision (3) of this subsection.

(5) The commissioner shall not issue a general permit pursuant to section 22a-174(*l*) of the Connecticut General Statutes with respect to a stationary source which is subject to any provision of 40 CFR 72 to 78, inclusive.

(k) **Title V Permit Shield**

(1) Except as otherwise provided, the commissioner may state in a new Title V permit or modified Title V permit pursuant to section 22a-174-2a(d)(3) or (4) of the Regulations of Connecticut State Agencies, that compliance with the terms and conditions of such permit shall be deemed compliance with a specifically identified applicable requirement, provided that:

(A) Such applicable requirement is stated in such permit application and permit and the legal authority for such requirement is specifically identified in the permit; or

(B) Such requirement is specifically identified in the permit and determined by the commissioner not to be applicable to such Title V source, and the permit includes such determination or a concise summary thereof.

(2) Any Title V permit that does not expressly state that compliance with the conditions of such permit shall be deemed compliance with a specifically identified applicable requirement shall be presumed not to provide a permit shield as provided for by subdivision (1) of this subsection.

(3) Notwithstanding subdivision (1) of this subsection, the Title V permit shall comply with the provisions of 40 CFR 70.6(f)(3)(i) to (iv), inclusive.

(4) The permit shield in subdivision (1) of this subsection shall not apply to:

(A) A modification of A Title V permit pursuant to section 22a-174-2a(e) of the Regulations of Connecticut State Agencies;

(B) A revision of a Title V permit pursuant to section 22a-174-2a(f) of the Regulations of Connecticut State Agencies, including administrative admendments implemented pursuant to section 22a-174-2a(f)(2)(F) of the Regulations of Connecticut State Agencies; or

(C) Off-permit changes or operational flexibility pursuant to subsection (r)(2) of this section.

(*l*) **Public Notice.** The requirements of section 22a-174-2a(b) and 22a-174-2a(c) of the Regulations of Connecticut State Agencies apply to an application for a Title V permit and the owner or operator of a Title V source.

(m) **Public Hearings.** The requirements of section 22a-174-2a(c) of the Regulations of Connecticut State Agencies apply to an application for a Title V permit and the owner or operator of a Title V source.

(n) **Administrator's Review of Proposed Permits.**

(1) The administrator is authorized by the Act to review the commissioner's proposed Title V permits within forty-five (45) days of receipt.

(2) The commissioner shall comply with the applicable provisions of 40 CFR 70.8.

(3) The commissioner shall have ninety (90) days from receipt of an objection from the administrator to resolve such objection.

(4) Pursuant to the Act, if the Administrator does not object in writing in accordance with 40 CFR 70.8(c), any person may petition the Administrator to object to a proposed permit in accordance with 40 CFR 70.8(d).

(5) If the commissioner does not, within ninety (90) days after receipt of an objection raised by the administrator pursuant to 40 CFR 70.8(c), submit a revised proposed permit to the administrator in response to the objection, the administrator will issue or deny the Title V permit pursuant to 40 CFR 71.

(6) The commissioner shall not issue a Title V permit until any objection raised by the administrator pursuant to 40 CFR 70.8(d), is resolved. If the commissioner has issued a Title V permit prior to receipt of an objection from the administrator pursuant to 40 CFR 70.8(d), the administrator will modify, terminate or revoke such permit in accordance with 40 CFR 70.7(g)(4) or (5)(i) and (ii).

(o) **Title V Monitoring Reports and Making and Keeping Records.**

(1) **Monitoring reports.** A permittee required to perform monitoring pursuant to a Title V permit shall submit to the commissioner, on forms prescribed by the commissioner, written monitoring reports on March 1 and September 1 of each year or on a more frequent schedule if specified in such permit. Such monitoring reports shall include the date and description of each deviation from a permit requirement including, but not limited to:

(A) Each deviation caused by upset or control equipment deficiencies;

(B) Each deviation of a permit requirement that has been monitored by the monitoring systems required under the Title V permit, which has occurred since the date of the last monitoring report; and

(C) Each deviation caused by a failure of the monitoring system to provide reliable data.

(2) Making and Keeping Records. Unless otherwise required by the subject permit, the permittee shall make and keep records of all required monitoring data and supporting information for at least five (5) years from the date such data and information were obtained. The permittee shall make such records available for inspection at the site of the subject source, and shall submit such records to the commissioner upon request. The following information, in addition to required monitoring data, shall be recorded for each permitted source:

(A) The type of monitoring or records used to obtain such data, including record keeping;

(B) The date, place, and time of sampling or measurement;

(C) The name of the individual who performed the sampling or the measurement and the name of such individual's employer;

(D) The date(s) on which analyses of such samples or measurements were performed;

(E) The name and address of the entity that performed the analyses;

(F) The analytical techniques or methods used for such analyses;

(G) The results of such analyses;

(H) The operating conditions at the subject source at the time of such sampling or measurement; and

(I) All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and copies of all reports required by the subject permit.

(3) Contemporaneously with making a change from one alternative operating scenario to another pursuant to a Title V permit, a permittee shall maintain a record at the site of the subject source including an identification or description of the current alternative operating scenario and the date on which the permittee changed from one alternative operating scenario to another.

(4) Any report submitted to the commissioner pursuant to this subsection shall be certified in accordance with section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies.

(p) **Notifications of Deviations**

(1) A permittee shall notify the commissioner in writing, on forms prescribed by the commissioner, of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures, as follows:

(A) For any hazardous air pollutant, no later than twenty-four (24) hours after such deviation commenced; and

(B) For any other regulated air pollutant, no later than ten (10) days after such deviation commenced;

(2) Reserved.

(3) The permittee shall certify any written notification submitted to the commissioner pursuant to this subsection in accordance with section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies.

(q) **Title V Progress Reports and Compliance Certifications.**

(1) **Progress reports.** A permittee shall, on March 1 and September 1 of each year, or on a more frequent schedule if specified in such permit, submit to the commissioner a progress report on forms prescribed by the commissioner, and certified in accordance with section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies. Such report shall describe the permittee's progress in achieving compliance under the compliance plan schedule contained in the permit. Such report shall:

(A) Identify those obligations under the compliance plan schedule in the permit which the permittee has met, and the dates on which they were met; and

(B) Identify those obligations under the compliance plan schedule in the permit which the permittee has not timely met, explain why they were not timely met, describe all measures taken or to be taken to meet them and identify the date by which the permittee expects to meet them.

(2) **Compliance certification.** A permittee shall, on March 1 of each year, or on a more

frequent schedule if specified in such permit, submit to the commissioner a written compliance certification certified in accordance with section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies and which includes the information identified in Title 40 CFR 70.6(c)(5)(iii)(A) to (C), inclusive.

(3) Any progress report prepared and submitted pursuant to subdivision (1) of this subsection, or compliance certification prepared and submitted pursuant to subdivision (2) of this subsection shall be simultaneously submitted by the permittee to the Administrator.

(r) **Title V Permit Modifications, Revisions, Operational Flexibility and Off Permit Changes.**

(1) Non-minor permit modifications, minor permit modifications or revisions to Title V permits shall be made in accordance with section 22a-174-2a(d), (e) or (f) of the Regulations of Connecticut State Agencies.

(2) Operational Flexibility and Off-Permit Changes.

(A) Except as provided in subparagraph (B) of this subdivision, a permittee may engage in any action allowed by the administrator in accordance with 40 CFR 70.4(b)(12)(i) to (iii)(B) inclusive, and 40 CFR 70.4(b)(14)(i) to (iv), inclusive without a Title V non-minor permit modification, minor permit modification or revision and without requesting a Title V non-minor permit modification, minor permit modification or revision.

(B) Any action authorized pursuant to subparagraph (A) of this subdivision to (v), of this subdivision provided such action does not:

(i) constitute a modification under 40 CFR 60, 61 or 63,

(ii) exceed emissions allowable under the subject permit,

(iii) constitute an action which would subject the permittee to any standard or other requirement purusant to 40 CFR 72 to 78, inclusive, or

(iv) constitute a non-minor permit modification pursuant to section 22a-174-2a(d)(4) of the Regulations of Connecticut State Agencies.

(s) **Title V permit reopenings.** The commissioner shall comply with the applicable provisions of 40 CFR 70.7(f) and (g).

(Effective September 20, 1995; Amended March 15, 2002; Amended April 4, 2006; Amended June 12, 2009; Amended April 6, 2010; Amended January 28, 2011; Amended December 22, 2016; Amended February 8, 2018; Amended March 14, 2024; Amended April 2, 2025)

Sec. 22a-174-33a. Limit on Premises-Wide Actual Emissions Below 50% of Title V Source Thresholds

(a) **Definitions.** For purposes of this section, the following definitions shall apply. Any term not defined shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies: (1) "Annual" means a calendar year beginning on January 1st and ending on December 31st for any given year.

(1) "Annual" means a calendar year beginning on January 1st and ending on December 31st for any given year.

(2) "Day" means the calendar day; if any date specified in this section falls on a Saturday,

Sunday, or legal holiday, such date shall be the next business day thereafter.

(3) "EPA" means the United States Environmental Protection Agency.

(4) Reserved.

(5) "Regulated air pollutant" means "regulated air pollutant", as defined in section 22a-174-33 of the Regulations of Connecticut State Agencies.

(6) "Research and development operation" means "research and development operation", as defined in section 22a-174-33 of the Regulations of Connecticut State Agencies.

(7) "Title V source thresholds" means those thresholds set forth in sections 22a-174-33(a)(10)(E) and (F) of the Regulations of Connecticut State Agencies.

(b) **Applicability.**

(1) Except as provided in subdivision (2) of this subsection, this section applies to the owner or operator of any premises who, in accordance with subsection (g)(1) of this section, has notified the commissioner of the owner or operator's commitment to limit the actual emissions from such premises below the thresholds provided in subsection (d)(1) of this section.

(2) This section shall not apply to the owner or operator of any premises that is subject to:

(A) Any acid rain control requirement pursuant to 40 CFR 72 to 78 inclusive;

(B) Any solid waste combustion requirement pursuant to section 129(e) of the Act;

(C) A Title V operating permit issued by the commissioner pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies or by the Administrator pursuant to 40 CFR 70 or 71; or

(D) Section 22a-174-33b of the Regulations of Connecticut State Agencies.

(c) **Duty to comply with this section.**

(1) The owner or operator of any premises who satisfies the applicability criteria of subsection (b)(1) of this section shall comply with all conditions and applicable requirements of this section until such time the owner or operator submits a notification to the commissioner, in accordance with subsection (g)(2) of this section, of cessation to operate a premises pursuant to this section.

(2) The terms and conditions of this section shall not supersede more stringent emissions limitations established in any order or permit issued by the commissioner pursuant to section 22a-174 of the Connecticut General Statutes.

(d) **Emissions requirements.**

(1) No owner or operator of any premises operating in accordance with this section shall cause or allow the emission of any regulated air pollutant during each and every consecutive 12 month period to be equal to or exceed the following:

(A) For any regulated air pollutant that is not a HAP, Volatile Organic Compound (VOC) or Nitrogen Oxides (NO_x): 50 tons;

(B) For any VOC or NO_x emitted in a serious ozone nonattainment area: 25 tons;

(C) For any VOC or NO_x emitted in a severe ozone nonattainment area: 12.5 tons;

(D) For any single HAP: 5 tons; and

(E) For any combination of HAPs: 12.5 tons.

(2) Notwithstanding the emissions requirements of subdivision (1) of this subsection, an owner or operator of any premises which is operating in accordance with a permit or order issued to implement section 22a-174-32 of the Regulations of Connecticut State Agencies shall continue to operate in accordance with such permit or order.

(3) For the purpose of determining the actual emissions from any premises at which a research and development operation is located, the owner or operator of such premises shall include the emissions from such research and development operation in the determination of the total actual emissions from such premises.

(4) Unless otherwise required by sections 22a-174-1 to 22a-174-99 of the Regulations of Connecticut State Agencies, 40 CFR 60, 61 or 63, or by the commissioner pursuant to subparagraph (F) of this subdivision, the owner or operator of any premises operating in accordance with this section shall determine the actual emissions for each regulated air pollutant as follows:

(A) If data are available from CEM equipment, such data shall be used to determine the rate of emissions. Only CEM installed, operated, and certified in accordance with a permit or order, regulation issued or administered by the commissioner or the Administrator, or a commissioner approved voluntarily installed CEM may be used to satisfy the requirements of this subdivision;

(B) If the data in subparagraph (A) of this subdivision are unavailable but stack testing data are available, such stack testing data shall be used to determine the rate of emissions, provided such testing was conducted in accordance with protocols approved in writing by the commissioner or the Administrator in advance of testing and a representative of the commissioner or the Administrator was provided the opportunity to witness such testing;

(C) If the data in subparagraphs (A) and (B) of this subdivision are unavailable, the rate of emissions shall be calculated using data supplied by the manufacturer of the subject emission unit or units, which data were derived from EPA approved emissions testing of such unit performed by or for the manufacturer;

(D) If the data in subparagraphs (A), (B) and (C) of this subdivision are unavailable, the rate of emissions shall be calculated using data derived from an analysis of pertinent material balances;

(E) If the data in subparagraphs (A), (B), (C) and (D) of this subdivision are unavailable, the rate of emissions shall be calculated using the data or emissions estimation technique from the following EPA publications that results in the highest rate of emissions:

(i) Compilation of Air Pollutant Emission Factors (AP-42),

(ii) AIRS Facility Subsystem Emission Factors, or

(iii) The Emission Inventory Improvement Program; and

(F) If the data in subparagraphs (A), (B), (C), (D) and (E) of this subdivision are not available, the emission rate shall be calculated using another source of emissions data that is approved by the commissioner and the Administrator. Such approval shall be obtained prior to operating in accordance with this section.

(5) Only those control efficiency limitations which are practicably enforceable may be included in the calculation of actual emissions.

(e) **Record keeping requirements.**

(1) The owner or operator of any premises operating in accordance with this section shall make and maintain records necessary to calculate the actual emissions of regulated air pollutants emitted from each emission unit, grouped emission unit, or other logical grouping. The records shall allow for such calculations for all regulated air pollutants identified in subsection (d)(1) of this section. Such records shall include the following:

(A) A list of all emission units, air pollution control equipment, and emission monitoring equipment at the premises, including the following for each unit or equipment:

(i) A description,

(ii) Maximum rated capacity, if applicable,

(iii) Installation date (or estimation if unknown),

(iv) Removal date, if applicable, and

(v) If emission units and associated equipment are located in more than one building on the premises, information on the location.

(B) A log for each month that shall include:

(i) The total amount of fuels, solvents, coatings, raw materials, or other such material, used by each emission unit during each month,

(ii) An identification of such fuels, solvents, coatings, raw materials, or other such material used, by each emission unit during each month,

(iii) The actual operating hours of each emission unit during each month, as necessary to calculate emissions,

(iv) Any other documentation the commissioner deems necessary to reliably calculate the emission of air pollutants regulated under this section, and

(v) All purchase orders, invoices, Material Safety Data Sheets, test results, certifications or other documents necessary to verify information and calculations in the monthly log.

(C) A log of annual actual emissions of each regulated air pollutant emitted from the premises, including a detailed description of the methodology the owner or operator used to calculate such emissions and the basis thereof.

(D) A copy of any notification or report submitted to the commissioner pursuant to this section, including applicable attachments.

(2) In addition to the requirements of subdivision (1) of this subsection, the owner or operator of any premises operating in accordance with this section shall make and maintain records of the total monthly and consecutive 12 month period actual emissions for each regulated air pollutant from the premises.

(3) Monthly and consecutive 12 month period records required by this section shall be created no later than 45 days after the end of each month or consecutive 12 month period.

(4) Annual records required by this section shall be created no later than March 1st of the year following the year for which the records are created.

(5) The owner or operator of any premises operating in accordance with this section shall

maintain each record required by this subsection at the premises where the activity takes place for 5 years after the date such record is made. For paperwork reduction, these records may be kept on computer file in electronic form. The owner or operator shall provide any such record or copy thereof to the commissioner or the Administrator upon request. Upon written approval by the commissioner, the owner or operator may maintain each record at a location other than the premises. The owner or operator shall provide any such record or copy thereof to the commissioner or the Administrator within 14 days of receipt of such request or within a later time frame if indicated in such request.

(6) Notwithstanding any other provision of this subsection, the owner or operator of any premises operating in accordance with this section shall keep a copy of the notification submitted in accordance with subsection (g)(1) of this section for a period of no less than 5 years beyond such time that the owner or operator submits a notification in accordance with subsection (g)(2) of this section.

(7) Notwithstanding any other provision of this subsection, the owner or operator of any premises operating in accordance with this section shall not be required to make or keep records concerning the purchase or use of any item or the conduct of any activity listed in section 22a-174-33(g)(3) of the Regulations of Connecticut State Agencies that results in the emission of a regulated air pollutant identified in subsection (d)(1) of this section, unless the commissioner determines that these records are needed to verify the eligibility to operate under this section, to determine the applicability of section 22a-174-33 of the Regulations of Connecticut State Agencies or to impose any applicable requirement.

(f) **Reporting requirements.**

(1) Annual Compliance Certification

(A) The owner or operator of any premises operating in accordance with this section shall submit to the commissioner on or before March 1st of each year, an annual compliance certification concerning such premises for the previous calendar year, or portion thereof. Such compliance certification shall be submitted electronically, via a reporting system provided by the commissioner, and shall contain the following information:

(i) Identification of each requirement in this section that is applicable for the certification period,

(ii) Identification of the method(s) or other means used by the owner or operator for determining the compliance status with each applicable requirement of this section during the certification period, and

(iii) The status of compliance with each applicable requirement during the certification period. The owner or operator shall identify whether compliance is continuous or intermittent, and each deviation or exceedance of an applicable requirement during the certification period.

(B) The owner or operator of any premises operating in accordance with this section shall submit any additional information requested in writing which the commissioner deems necessary to verify the actual emissions. Such additional information shall be submitted within 14 days of receipt of such request or within a later time frame if indicated in such

request.

(2) Exceedances

(A) Upon discovery of an exceedance of an emissions limitation set forth in subsection (d) of this section, the owner or operator of any premises operating in accordance with this section shall take action to determine the cause of such exceedance, correct such exceedance and mitigate its results, and prevent any further exceedance.

(B) The owner or operator of any premises operating in accordance with this section shall notify the commissioner electronically, via a reporting system provided by the commissioner, of any exceedance of an emissions limitation established in subsection (d) of this section and shall identify the cause or likely cause of such exceedance, all corrective actions and preventative measures taken with respect thereto, and the dates of such actions and measures, as follows:

(i) For any HAP, no later than 24 hours after such exceedance has been discovered, and

(ii) For any other regulated air pollutant, no later than 10 days after such exceedance has been discovered.

(g) **Notifications.**

(1) Any owner or operator committing to operate a premises pursuant to this section shall submit a notification to the commissioner, on forms prescribed by the commissioner. Such notification shall include, but is not limited to the following information:

(A) Legal name, address, email address and telephone number of the owner or operator of the subject premises. If the owner or operator is an entity transacting business in Connecticut and is required to register with the Connecticut Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State;

(B) If applicable, the legal name of the agent for service of process for the owner of the subject premises, the name, email address and telephone number of the individual with primary managerial responsibility for the premises, and the name, email address and telephone number of any individual designated by the owner or operator thereof to answer questions pertaining to such notification;

(C) Legal name, address, email address and telephone number of any consultant or engineer retained by the owner or operator to prepare the notification;

(D) Location address of the premises with respect to which the notification is submitted;

(E) The date the owner or operator will commence to operate the premises in accordance with this section. This date shall be no earlier than November 9, 2020; and

(F) Previous Approval of Registration number, issued in accordance with the General Permit to Limit Potential to Emit from Major Sources of Air Pollution issued on November 9, 2015, if applicable.

(2) Any owner or operator ceasing to operate a premises pursuant to this section shall submit a notification to the commissioner, on forms prescribed by the commissioner, no later than 30 days after such cessation. Such notification shall include, but is not limited to the following information:

(A) Legal name, address, email address and telephone number of the owner or operator

of the subject premises. If the owner or operator is an entity transacting business in Connecticut and is required to register with the Connecticut Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State;

(B) If applicable, the legal name of the agent for service of process for the owner of the subject premises, the name, email address and telephone number of the individual with primary managerial responsibility for the premises, and the name, email address and telephone number of any individual designated by the owner or operator thereof to answer questions pertaining to such notification;

(C) Legal name, address, email address and telephone number of any consultant or engineer retained by the owner or operator to prepare the notification;

(D) Location address of the premises with respect to which the notification is submitted;

(E) The reason for such cessation;

(F) The date of such cessation;

(G) An Annual Compliance Certification, as referenced in subsection (f)(1) of this section, for the portion of the current calendar year; and

(H) An Annual Compliance Certification, as referenced in subsection (f)(1) of this section, for the previous calendar year if such cessation notification is submitted before the prior year's compliance certification has been submitted.

(3) The commissioner shall notify any owner or operator submitting a notification in accordance with this subsection, in writing, if the commissioner determines that additional information is necessary to evaluate such notification. Such information shall be submitted to the commissioner, in writing, within 45 days of such additional information notification and shall be certified in accordance with subsection (h) of this section.

(4) Any notification submitted pursuant to this subsection shall be sent to the Bureau of Air Management at the following address:

Supervisor
Compliance Analysis and Coordination Unit
Bureau of Air Management
Connecticut Department of Energy and Environmental Protection
79 Elm Street Hartford, CT 06106-512

(h) **Certification.**

Any document, notification, data or record required to be submitted to the commissioner pursuant to this section shall include a certification signed by any of the individuals identified in section 22a-174-2a(a)(1) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document or record, each of whom shall examine and be familiar with the information submitted and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation,

including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 or 53a-157b of the Connecticut General Statutes."

(i) **Correction of Inaccuracies.**

Within 15 days after the date the owner or operator of any premises operating in accordance with this section becomes aware of a change in any of the information submitted pursuant to this section, becomes aware that any such information is inaccurate or misleading, or that relevant information has been omitted, such owner or operator shall correct the inaccurate or misleading information and supply the corrected or omitted information in writing to the commissioner. Such information shall be certified in accordance with subsection (h) of this section.

(j) **Other Applicable Law and Regulations.**

(1) Nothing in this section shall relieve the owner or operator of any premises operating in accordance with this section of the obligation to comply with any other applicable federal, state and local law, including, but not limited to, the obligation to obtain any other authorizations required by such law.

(2) Nothing in this section shall preclude the commissioner from requiring the owner or operator of any premises operating in accordance with this section to obtain a Title V operating permit pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies.

(3) Nothing in this section shall preclude the owner or operator of any premises operating in accordance with this section from applying for a Title V operating permit pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies, if applicable.

(Effective September 24, 2020; Amended March 14, 2024)

Sec. 22a-174-33b. Limit on Premises-Wide Actual Emissions Below 80% of Title V Source Thresholds

(a) **Definitions.** For purposes of this section, the following definitions shall apply. Any term not defined shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies:

(1) "Annual" means a calendar year beginning on January 1st and ending on December 31st for any given year.

(2) "Asphalt plant" means any facility used to manufacture asphalt by mixing aggregate with asphalt cements or mixing recycled asphalt pavement with other additives.

(3) "Chemical manufacturing process" means all equipment which collectively functions to produce a product or isolated intermediate. A "chemical manufacturing process" includes, but is not limited to any, all, or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate.

(4) "Common billing meter" means a utility meter that measures the total fuel consumption for multiple fuel burning combustion units that belong to the same group type and for which emissions are calculated using the same emission factors. For purposes of this definition, two or more boilers belong to the same group type, whereas a boiler and an emergency engine do not.

(5) "Concrete plant" means any facility used to manufacture concrete. For the purposes of this section, "concrete" means a composite material composed of fine and coarse aggregate bonded together in a fluid cement.

(6) "Day" means the calendar day; if any date specified in this section falls on a Saturday, Sunday, or legal holiday, such date shall be the next business day thereafter.

(7) "Emergency engine" means "emergency engine", as defined in section 22a-174-22e of the Regulations of Connecticut State Agencies.

(8) "Environmental testing laboratory" means all equipment which collectively is used to analyze air, soil, water or solid material samples for trace elements or contaminants.

(9) "EPA" means the United States Environmental Protection Agency.

(10) Reserved.

(11) "Non-metallic mineral processing plant" means "non-metallic mineral processing plant", as defined in 40 CFR 60.671.

(12) "Regulated air pollutant" means "regulated air pollutant", as defined in section 22a-174-33 of the Regulations of Connecticut State Agencies.

(13) "Research and development operation" means "research and development operation", as defined in section 22a-174-33 of the Regulations of Connecticut State Agencies.

(14) "Source of VOC or HAP" means any metal cleaning; can coating; coil coating; fabric and vinyl coating; metal furniture coating; paper, film and foil coating; wire coating; miscellaneous metal and plastic parts coating; graphic arts rotogravures and flexography; flexible package printing; offset lithographic printing; appliance coating; industrial solvent cleaning; spray equipment cleaning; pleasure craft coating; degreasing; motor vehicle fueling operation; or any other spray, dip coating or hand wiping operation; excluding chemical manufacturing processes.

(15) "Title V source thresholds" means those thresholds set forth in sections 22a-174-33(a)(10)(E) and (F) of the Regulations of Connecticut State Agencies.

(16) "VOC-containing material" means any ink, coating, diluent, additive, solvent, or other material which contains VOC and is used in a source of VOC or HAP.

(b) **Applicability.**

(1) Except as provided in subdivision (2) of this subsection, this section applies to the owner or operator of any premises who, in accordance with subsection (h)(1) of this section, has notified the commissioner of the owner or operator's commitment to limit the actual emissions from such premises below the thresholds listed in subsection (d)(1) of this section, provided that such emissions at the facility are from one or more of the following sources: equipment that conducts a chemical manufacturing process, an environmental testing

laboratory, a source of VOC or HAP, a fuel burning combustion unit, a non-metallic mineral processing plant, a concrete plant or an asphalt plant.

(2) This section shall not apply to the owner or operator of any premises that is subject to:

(A) Any acid rain control requirement pursuant to 40 CFR 72 to 78 inclusive;

(B) Any solid waste combustion requirement pursuant to section 129(e) of the Act;

(C) A Title V operating permit issued by the commissioner pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies or by the Administrator pursuant to 40 CFR 70 or 71; or

(D) Section 22a-174-33a of the Regulations of Connecticut State Agencies.

(c) **Duty to comply with this section.**

(1) The owner or operator of any premises who satisfies the applicability criteria of subsection (b)(1) of this section shall comply with all conditions and applicable requirements of this section until such time the owner or operator submits a notification to the commissioner, in accordance with subsection (h)(2) of this section, of cessation to operate a premises pursuant to this section.

(2) The terms and conditions of this section shall not supersede more stringent emissions limitations established in any order or permit issued by the commissioner pursuant to section 22a-174 of the Connecticut General Statutes.

(d) **Emissions requirements.**

(1) No owner or operator of any premises operating in accordance with this section shall cause or allow the emission of any regulated air pollutant during each and every consecutive 12 month period to be equal to or exceed the following

(A) For any regulated air pollutant that is not a HAP, Volatile Organic Compound (VOC) or Nitrogen Oxides (NO_x): 80 tons;

(B) For any VOC or NO_x emitted in a serious ozone nonattainment area: 40 tons;

(C) For any VOC or NO_x emitted in a severe ozone nonattainment area: 20 tons;

(D) For any single HAP: 8 tons; and

(E) For any combination of HAPs: 20 tons.

(2) Notwithstanding the emissions requirements of subdivision (1) of this subsection, an owner or operator of any premises which is operating in accordance with a permit or order issued to implement section 22a-174-32 of the Regulations of Connecticut State Agencies shall continue to operate in accordance with such permit or order.

(3) For the purpose of determining the actual emissions from any premises at which a research and development operation is located, the owner or operator of such premises shall include the emissions from such research and development operation in the determination of the total actual emissions from such premises.

(4) Unless otherwise required by sections 22a-174-1 to 22a-174-99 of the Regulations of Connecticut State Agencies, 40 CFR 60, 61 or 63, or by the commissioner pursuant to subparagraph (F) of this subdivision, the owner or operator of any premises operating in accordance with this section shall determine the actual emissions for each regulated air

pollutant as follows:

(A) If data are available from CEM equipment, such data shall be used to determine the rate of emissions. Only CEM installed, operated, and certified in accordance with a permit or order, regulation issued or administered by the commissioner or the Administrator, or a commissioner approved voluntarily installed CEM may be used to satisfy the requirements of this subdivision;

(B) If the data in subparagraph (A) of this subdivision are unavailable but stack testing data are available, such stack testing data shall be used to determine the rate of emissions, provided such testing was conducted in accordance with protocols approved in writing by the commissioner or the Administrator in advance of testing and a representative of the commissioner or the Administrator was provided the opportunity to witness such testing;

(C) If the data in subparagraphs (A) and (B) of this subdivision are unavailable, the rate of emissions shall be calculated using data supplied by the manufacturer of the subject emissions unit or units, which data were derived from EPA approved emissions testing of such unit performed by or for the manufacturer;

(D) If the data in subparagraphs (A), (B) and (C) of this subdivision are unavailable, the rate of emissions shall be calculated using data derived from an analysis of pertinent material balances;

(E) If the data in subparagraphs (A), (B), (C) and (D) of this subdivision are unavailable:

(i) The rate of emissions shall be calculated using the data or emissions estimation technique from the following EPA publications that results in the highest rate of emissions:

(I) Compilation of Air Pollutant Emission Factors (AP-42),

(II) AIRS Facility Subsystem Emission Factors, or

(III) The Emission Inventory Improvement Program (EIIP), or

(ii) Notwithstanding subsection (d)(4)(E)(i) of this section, for a chemical manufacturing process, the rate of emissions shall be calculated using the EIIP published by EPA; and

(F) If the data in subparagraphs (A), (B), (C), (D) and (E) of this subdivision are unavailable, the emission rate shall be calculated using another source of emissions data that is approved by the commissioner and the Administrator. Such approval shall be obtained prior to operating in accordance with this section.

(5) Only those control efficiency limitations which are practicably enforceable may be included in the calculation of actual emissions.

(6) Notwithstanding the availability of the data specified in subdivisions (4) and (5) of this subsection, the commissioner or Administrator may require the use of more reliable data, as determined by the commissioner or Administrator, as it becomes available or source specific air emissions testing in accordance with section 22a-174-5 of the Regulations of Connecticut State Agencies or as required by the Administrator under the authority of the Act.

(e) **Monitoring requirements.**

The owner or operator of any premises operating in accordance with this section shall monitor:

(1) VOC or HAP emissions from a source of VOC or HAP by use of record keeping in accordance with subsection (f)(2)(B) of this section.

(2) VOC or HAP emissions from a chemical manufacturing process by use of:

(A) Record keeping in accordance with subsection (f)(2)(C) of this section;

(B) For a chemical manufacturing process for which actual emissions are calculated in accordance with subsection (d)(4)(E)(ii) of this section:

(i) A temperature monitoring device that measures the temperature of each vent condenser used hourly during vessel depressurization for each continuous process, and

(ii) A temperature monitoring device that measures the temperature of each vent condenser during each batch produced for each batch process;

(C) A temperature monitoring device that measures the average storage temperature for each storage tank that is heated; and

(D) Implement a leak detection program that measures fugitive equipment leaks.

(3) Emissions from a fuel burning combustion unit by the use of:

(A) CEM in accordance with the requirements of an applicable permit, order, statute or regulation or a commissioner approved voluntarily installed CEM, as applicable, and record keeping in accordance with subsection (f)(2)(D) of this section;

(B) If monitoring as provided in subparagraph (A) of this subdivision is unavailable, a unit specific emission rate established through commissioner approved emissions testing in accordance with requirements of an applicable permit, order, statute or regulation, or commissioner approved voluntary testing, as applicable, fuel consumption through a dedicated non-resettable fuel flow meter or a common billing meter, and record keeping in accordance with subsection (f)(2)(D) of this section;

(C) If monitoring as provided in subparagraphs (A) and (B) of this subdivision is unavailable, a manufacturer provided emission rate derived from EPA approved emissions testing of such unit performed by or for the manufacturer, fuel consumption through a dedicated non-resettable fuel flow meter or a common billing meter, and record keeping in accordance with subsection (f)(2)(D) of this section; or

(D) If monitoring as provided in subparagraphs (A), (B) and (C) of this subdivision is unavailable, an AP-42 emission factor, as specified in subsection (d)(4)(E)(i) of this section, fuel consumption through a dedicated non-resettable fuel flow meter or a common billing meter, and record keeping in accordance with subsection (f)(2)(D) of this section.

(E) Notwithstanding the monitoring requirements of subparagraphs (B), (C) and (D) of this subdivision, for a fuel combustion source that is an emergency engine which has maximum uncontrolled emissions of less than 15 tons per year for each regulated air pollutant that is not a HAP, or an emergency engine that is operated pursuant to section 22a-174-3b of the Regulations of Connecticut State Agencies, the owner or operator of any premises operating in accordance with this section may monitor hours of operation through a dedicated non-resettable hour meter in lieu of monitoring fuel consumption through a dedicated non-resettable fuel flow meter or a common billing meter. The owner or operator shall use the emergency engine's maximum rated capacity and records of the unit's operating

hours to calculate fuel consumption for the emergency engine.

(4) PM_{10} and NO_x emissions from a non-metallic mineral processing plant, concrete plant or asphalt plant by use of:

(A) Record keeping in accordance with subsection (f)(2)(E) of this section;

(B) A dedicated non-resettable fuel meter for each piece of fuel burning equipment; and

(C) A weigh scale or belt, or other equivalent measuring device or system, to measure process throughput for each piece of equipment.

(5) VOC or HAP emissions from an environmental testing laboratory by use of record keeping in accordance with subsection (f)(2)(F) of this section.

(f) **Record keeping requirements.**

(1) The owner or operator of any premises operating in accordance with this section shall make and maintain records necessary to calculate the actual emissions of regulated air pollutants emitted from each emissions unit, grouped emissions unit, or other logical grouping. The records shall allow for such calculations for all regulated air pollutants identified in subsection (d)(1) of this section. Such records shall include the following:

(A) A list of all emissions units, air pollution control equipment, and emission monitoring equipment at the premises, including the following for each unit or equipment:

(i) A description,

(ii) Maximum rated capacity, if applicable,

(iii) Installation date (or estimation if unknown),

(iv) Removal date, if applicable, and

(v) If emissions units and associated equipment are located in more than one building on the premises, information on the location.

(B) A log for each month that shall include:

(i) The total amount of fuels, solvents, coatings, raw materials, or other such material, used by each emissions unit during each month,

(ii) An identification of such fuels, solvents, coatings, raw materials, or other such material used, by each emissions unit during each month,

(iii) The actual operating hours of each emissions unit during each month, as necessary to calculate emissions,

(iv) Any other documentation the commissioner deems necessary to reliably calculate the emission of air pollutants regulated under this section, and

(v) All purchase orders, invoices, Material Safety Data Sheets, test results or other documents necessary to verify information and calculations in the monthly log.

(C) A log of annual actual emissions of each regulated air pollutant emitted from the premises, including a detailed description of the methodology the owner or operator used to calculate such emissions and the basis thereof.

(D) A copy of any notification or report submitted to the commissioner pursuant to this section, including applicable attachments.

(2) In addition to the requirements of subdivision (1) of this subsection, the owner or

operator of any premises operating in accordance with this section shall make and maintain the following records:

(A) Total monthly and consecutive 12 month period actual emissions for each regulated air pollutant from the premises.

(B) For each source of VOC or HAP:

(i) Name and description of each VOC-containing material or HAP-containing material used,

(ii) Density of each VOC-containing material or HAP-containing material used in pounds per gallon,

(iii) VOC content of each VOC-containing material, by weight, as supplied and as applied, and the associated calculations, if as applied is different than as supplied,

(iv) Water and exempt VOC content of each VOC-containing material, as applied, by weight and volume, and the associated calculations,

(v) HAP content of each HAP-containing material, by weight, as supplied and as applied, and the associated calculations, if as applied is different than as supplied,

(vi) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each VOC-containing material or HAP-containing material used,

(vii) Monthly and consecutive 12 month period amounts of each VOC-containing material or HAP-containing material used in gallons or pounds,

(viii) Monthly and consecutive 12 month period amounts of each VOC-containing material or HAP-containing material manifested as waste and associated waste characterizations,

(ix) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator,

(x) Date and type of maintenance performed on air pollution control equipment, if applicable, and

(xi) Monthly and consecutive 12 month period VOC and HAP actual emissions, and the associated calculations.

(C) For each chemical manufacturing process:

(i) Name and description of each VOC-containing material or HAP-containing material used,

(ii) Density of each VOC-containing material or HAP-containing material used in pounds per gallon,

(iii) VOC content of each VOC-containing material, by weight, as supplied and as applied, and the associated calculations, if as applied is different than as supplied,

(iv) Water and exempt VOC content of each VOC-containing material, as applied, by weight and volume, and the associated calculations,

(v) HAP content of each HAP-containing material, by weight, as supplied and as applied, and the associated calculations, if as applied is different than as supplied,

(vi) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each VOC-containing material or HAP-containing material used,

(vii) For each chemical manufacturing process for which actual emissions are calculated in accordance with subsection (d)(4)(D) of this section:

(I) Monthly and consecutive 12 month period amounts of each VOC-containing material or HAP-containing material used in gallons or pounds, and

(II) Monthly and consecutive 12 month period amounts of each VOC-containing material or HAP-containing material manifested as waste and associated waste characterizations,

(viii) For each chemical manufacturing process for which actual emissions are calculated in accordance with subsection (d)(4)(E)(ii) of this section:

(I) Records of the temperature of each vent condenser used hourly during vessel depressurization for each continuous process, and

(II) Records of the temperature of each vent condenser during each batch produced for each batch process,

(ix) For each storage tank:

(I) Monthly records of the amount and type of material transferred to each tank,

(II) Monthly records of the average storage temperature for each storage tank that is heated, and

(III) Records of each time a drum of carbon used for vent control is replaced,

(x) For fugitive equipment leaks:

(I) An inventory of equipment leak components at the premises including the component type, component service and stream composition,

(II) Records of leak detection measurements used to estimate fugitive equipment leaks,

(III) Monthly records of the hours of service for each equipment leak component unless 24 hours per day and 7 days per week is assumed, and

(IV) Records of each leak detected including those detected during required leak detection monitoring, a description of all corrective actions taken, and the dates of such actions, if applicable,

(xi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator,

(xii) Date and type of maintenance performed on air pollution control equipment, if applicable,

(xiii) Calculations showing the derivation of actual emissions, and

(xiv) Monthly and consecutive 12 month period records of actual emissions, and the associated calculations.

(D) For each fuel burning combustion unit:

(i) A log of CEM data, if applicable,

(ii) A copy of emissions test results, if applicable,

(iii) A copy of manufacturer emissions data records, if applicable,

(iv) A log of monthly and consecutive 12 month period fuel consumption, and

(v) A log of monthly and consecutive 12 month period actual emissions, and the associated calculations.

(E) For each piece of equipment in a non-metallic mineral processing plant, concrete plant or asphalt plant:

(i) A log of the quantity of fuel used, in gallons or cubic feet, for each day, month and each consecutive 12 month period,

(ii) For each nongaseous fuel shipment received, record of the sulfur content as a percent by weight, dry basis, and type of fuel,

(iii) A log of the quantity of materials processed, in tons, for each day, month and consecutive 12 month period, and

(iv) A log of the monthly and consecutive 12 month period PM_{10} and NO_x actual emissions, and the associated calculations.

(F) For each environmental testing laboratory:

(i) Name and description of each VOC-containing material or HAP-containing material used,

(ii) Density of each VOC-containing material or HAP-containing material used in pounds per gallon,

(iii) VOC content of each VOC-containing material, by weight, as supplied and as applied, and the associated calculations, if as applied is different than as supplied,

(iv) Water and exempt VOC content of each VOC-containing material, as applied, by weight and volume, and the associated calculations,

(v) HAP content of each HAP-containing material, by weight, as supplied and as applied, and the associated calculations, if as applied is different than as supplied,

(vi) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each VOC-containing material or HAP-containing material used,

(vii) Monthly and consecutive 12 month period amounts of each VOC-containing material or HAP-containing material used in gallons or pounds,

(viii) Monthly and consecutive 12 month period amounts of each VOC-containing material or HAP-containing material manifested as waste and associated waste characterizations,

(ix) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator,

(x) Date and type of maintenance performed on air pollution control equipment, if applicable, and

(xi) Monthly and consecutive 12 month period VOC and HAP actual emissions, and the associated calculations.

(3) Monthly and consecutive 12 month period records required by this subsection shall be created no later than 45 days after the end of each month or consecutive 12 month period.

(4) Annual records required by this subsection shall be created no later than March 1st of the year following the year for which the records are created.

(5) The owner or operator of any premises operating in accordance with this section shall maintain each record required by this subsection at the premises where the activity takes place for 5 years after the date such record is made. For paperwork reduction, these records may be kept on computer file in electronic form. The owner or operator shall provide any such record or copy thereof to the commissioner or the Administrator upon request. Upon written approval by the commissioner, the owner or operator may maintain each record at a location other than the premises. The owner or operator shall provide any such record or copy thereof to the commissioner or the Administrator within 14 days of receipt of such request or within a later time frame if indicated in such request.

(6) Notwithstanding any other provision of this subsection, the owner or operator of any premises operating in accordance with this section shall keep a copy of the notification submitted in accordance with subsection (h)(1) of this section for a period of no less than 5 years beyond such time that the owner or operator submits a notification in accordance with subsection (h)(2) of this section.

(7) Notwithstanding any other provision of this subsection, the owner or operator of any premises operating in accordance with this section shall not be required to make or keep records concerning the purchase or use of any item or the conduct of any activity listed in section 22a-174-33(g)(3) of the Regulations of Connecticut State Agencies that results in the emission of a regulated air pollutant identified in subsection (d)(1) of this section, unless the commissioner determines that these records are needed to verify the eligibility to operate under this section, to determine the applicability of section 22a-174-33 of the Regulations of Connecticut State Agencies or to impose any applicable requirement.

(g) **Reporting requirements.**

(1) Annual Compliance Certification

(A) The owner or operator of any premises operating in accordance with this section shall submit to the commissioner on or before March 1st of each year in which the owner or operator is operating in accordance with this section, an annual compliance certification concerning such premises for the previous calendar year, or portion thereof. Such compliance certification shall be submitted electronically, via a reporting system provided by the commissioner, and shall contain the following information:

(i) Identification of each requirement in this section that is applicable for the certification period,

(ii) Identification of the method(s) or other means used by the owner or operator for determining this compliance status with each applicable requirement of this section during the certification period, and

(iii) The status of compliance with each applicable requirement during the certification period. The owner or operator shall identify whether compliance is continuous or intermittent, and each deviation or exceedance of an applicable requirement during the certification period.

(B) The owner or operator of any premises operating in accordance with this section shall submit potential emissions calculations, when requested in writing, for individual sources or the premises, which the commissioner deems necessary to verify compliance with any regulation. Such calculations shall be submitted within 14 days of receipt of such request or within a later time frame if indicated in such request.

(C) The owner or operator of any premises operating in accordance with this section shall submit any additional information requested in writing which the commissioner deems necessary to verify the actual emissions. Such additional information shall be submitted within 14 days of receipt of such request or within a later time frame if indicated in such request.

(2) Annual Emissions Summary

The owner or operator of any premises operating in accordance with this section shall submit to the commissioner on or before March 1st of each year in which the owner or operator is operating in accordance with this section, an annual emissions summary with respect to the premises for the previous calendar year, or portion thereof. Such annual emissions summary shall be submitted electronically, via a reporting system provided by the commissioner, and shall contain the following information with respect to any regulated air pollutant for which the premises actual emissions are at or above 50% of a Title V source threshold during any consecutive 12 month period of the previous calendar year, as logged pursuant to subsection (f)(2)(A) of this section:

(A) The total quantity of emissions of a regulated air pollutant expressed in tons, pounds, or otherwise as the commissioner or the Administrator may require. Such emissions shall be reported for each and every consecutive 12 month period which ended during the previous calendar year, expressed as a 12 month aggregate; and

(B) Any additional information requested in writing which the commissioner deems necessary to verify actual emissions. Such additional information shall be submitted within 14 days of receipt of such request or within a later time frame if indicated in such request.

(3) Exceedances

(A) Upon discovery of an exceedance of an emissions limitation set forth in subsection (d) of this section, the owner or operator of any premises operating in accordance with this section shall take action to determine the cause of such exceedance, correct such exceedance and mitigate its results, and prevent any further exceedance.

(B) The owner or operator of any premises operating in accordance with this section shall notify the commissioner electronically, via a reporting system provided by the commissioner, of any exceedance of an emissions limitation established in subsection (d) of this section and shall identify the cause or likely cause of such exceedance, all corrective actions and preventative measures taken with respect thereto, and the dates of such actions and measures, as follows:

(i) For any HAP, no later than 24 hours after such exceedance has been discovered, and

(ii) For any other regulated air pollutant, no later than 10 days after such exceedance has been discovered.

(h) **Notifications.**

(1) Any owner or operator committing to operate a premises pursuant to this section shall submit a notification to the commissioner, on forms prescribed by the commissioner. Such notification shall include, but is not limited to the following information:

(A) Legal name, address, email address, and telephone number of the owner or operator of the subject premises. If the owner or operator is an entity transacting business in Connecticut and is required to register with the Connecticut Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State;

(B) If applicable, the legal name of the agent for service of process for the owner of the subject premises, the name, email address and telephone number of the individual with primary managerial responsibility for the premises, and the name and telephone number of any individual designated by the owner or operator thereof to answer questions pertaining to such notification;

(C) Legal name, address, email address and telephone number of any consultant or engineer retained by the owner or operator to prepare the notification;

(D) Location address of the premises with respect to which the notification is submitted;

(E) The date the owner or operator will commence to operate the premises in accordance with this section. This date shall be no earlier than November 9, 2020; and

(F) Previous Approval of Registration number, issued in accordance with the General Permit to Limit Potential to Emit from Major Sources of Air Pollution issued on November 9, 2015, if applicable.

(2) Any owner or operator ceasing to operate a premises pursuant to this section shall submit a notification to the commissioner, on forms prescribed by the commissioner, no later than 30 days after such cessation. Such notification shall include, but is not limited to, the following information:

(A) Legal name, address, email address and telephone number of the owner or operator of the subject premises. If the owner or operator is an entity transacting business in Connecticut and is required to register with the Connecticut Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State;

(B) If applicable, the legal name of the agent for service of process for the owner of the subject premises, the name, email address and telephone number of the individual with primary managerial responsibility for the premises, and the name and telephone number of any individual designated by the owner or operator thereof to answer questions pertaining to such notification;

(C) Legal name, address, email address and telephone number of any consultant or engineer retained by the owner or operator to prepare the notification;

(D) Location address of the premises with respect to which the notification is submitted;

(E) The reason for such cessation;

(F) The date of such cessation;

(G) An Annual Compliance Certification, as referenced in subsection (g)(1) of this section, for the portion of the current calendar year;

(H) An Annual Compliance Certification, as referenced in subsection (g)(1) of this section, for the previous calendar year if such cessation notification is submitted before the prior year's compliance certification has been submitted;

(I) An Annual Emissions Summary, as referenced in subsection (g)(2) of this section, for the portion of the current calendar year; and

(J) An Annual Emissions Summary, as referenced in subsection (g)(2) of this section, for the previous calendar year if such cessation notification is submitted before the prior year's emissions summary has been submitted.

(3) The commissioner shall notify any owner or operator submitting a notification in accordance with this subsection, in writing, if the commissioner determines that additional information is necessary to evaluate such notification. Such information shall be submitted to the commissioner, in writing, within 45 days of such additional information notification and shall be certified in accordance with subsection (i) of this section.

(4) Any notification submitted pursuant to this subsection or additional information shall be sent to the following:

(A) The Bureau of Air Management at the address listed below; and

Supervisor
Compliance Analysis and Coordination Unit
Bureau of Air Management
Connecticut Department of Energy and Environmental Protection
79 Elm Street Hartford, CT 06106-512

(B) The U.S. Environmental Protection Agency, when applicable, at the address listed below.

US EPA Region 1
5 Post Office Square - Suite 100
Boston, MA 02109-3912
Attention: Air Clerk

(i) **Certification.**

Any document, notification, data or record required to be submitted to the commissioner pursuant to this section shall include a certification signed by any of the individuals identified in section 22a-174-2a(a) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document or record, each of whom shall examine and be familiar with the information submitted and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable

as a criminal offense under section 22a-175 or 53a-157b of the Connecticut General Statutes."

(j) **Correction of Inaccuracies.**

Within 15 days after the date the owner or operator of any premises operating in accordance with this section becomes aware of a change in any of the information submitted pursuant to this section, becomes aware that any such information is inaccurate or misleading, or that relevant information has been omitted, such owner or operator shall correct the inaccurate or misleading information and supply the corrected and/or omitted information in writing to the commissioner. Such information shall be certified in accordance with subsection (i) of this section.

(k) **Other Applicable Law and Regulations.**

(1) Nothing in this section shall relieve the owner or operator of any premises operating in accordance with this section of the obligation to comply with any other applicable federal, state and local law, including, but not limited to, the obligation to obtain any other authorizations required by such law.

(2) Nothing in this section shall preclude the commissioner from requiring the owner or operator of any premises operating in accordance with this section to obtain a Title V operating permit pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies.

(3) Nothing in this section shall preclude the owner or operator of any premises operating in accordance with this section from applying for a Title V operating permit pursuant to section 22a-174-33 of the Regulations of Connecticut State Agencies, if applicable.

(Effective September 24, 2020; Amended March 14, 2024)

Sec. 22a-174-34—22a-174-35. Reserved

Sec. 22a-174-36. Low emission vehicles

(a) **Definitions.**For the purposes of this section:

"Air contaminant emission control system" means the equipment designed for installation on a motor vehicle or motor vehicle engine for the purpose of reducing the air contaminants emitted from the motor vehicle or motor vehicle engine, or a system or engine modification on a motor vehicle or motor vehicle engine which causes a reduction of air contaminants emitted from the motor vehicle or motor vehicle engine, including but not limited to exhaust control systems, fuel evaporation control systems, and crankcase ventilating systems.

"CARB" means the California Air Resources Board.

"Certified" means the finding by EPA or CARB that a motor vehicle, motor vehicle engine, or motor vehicle engine family, or air contaminant emission control system has satisfied the criteria adopted by EPA or CARB for the control of specified air contaminants from motor vehicles.

"Department" means the Department of Environmental Protection.

"Dual-fuel" means a motor vehicle that is engineered and designed to be capable of operating on a petroleum fuel and on another fuel which is stored separately on-board the

vehicle.

"Emergency vehicle" means any publicly owned vehicle operated by a peace officer in performance of his or her duties, any authorized vehicle used for fighting fires or responding to emergency fire calls, any publicly owned authorized vehicle used by emergency medical technicians or paramedics, or used for towing or servicing other vehicles, or repairing damaged lighting or electrical equipment, or an ambulance.

"Emission control label" means the permanent stickers required by CARB and affixed to all 1998 and subsequent model year passenger cars and light duty trucks, certified for sale in California.

"EPA" means the United States Environmental Protection Agency.

"Executive Officer" means the Executive Officer of CARB.

"Fleet average emissions" means a motor vehicle manufacturer's average vehicle emissions of all non-methane organic gases from all vehicles which are subject to this section, sold in the State of Connecticut in any model year.

"Fuel-flexible" means a methanol-fueled motor vehicle that is engineered and designed to be operated using any gasoline-methanol fuel mixture or blend.

"Hybrid electric vehicle" or "HEV" means a motor vehicle which allows power to be delivered to the driver wheels solely by a battery powered electric motor but which also incorporates the use of a combustion engine to provide power to the battery, or any vehicle which allows power to be delivered to the driver wheels by either a combustion engine and/or by a battery powered electric motor.

"LDT" means light duty truck.

"Light duty truck" means any motor vehicle having a gross vehicle weight rating of 6000 pounds or less, which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.

"Loaded vehicle weight" means vehicle curb weight plus 300 pounds.

"LVW" means loaded vehicle weight.

"Model year" means a motor vehicle manufacturer's annual production period which includes January 1 of a calendar year or, if the manufacturer has no annual production period, the calendar year. In case of any vehicle manufactured in two or more stages, the time of manufacture shall be the date of completion of the chassis.

"New vehicle" means any passenger car or light duty truck with 7,500 miles or fewer on its odometer.

"Passenger car" means any motor vehicle designed primarily for transportation of persons and having a design capacity of twelve persons or less.

"PC" means passenger car.

"Vehicle" means a motor vehicle.

"Zero-emission vehicle" or (ZEV) means any vehicle which is certified by the Executive Officer to produce zero emissions of any criteria pollutants under any and all possible operational modes and conditions. Incorporation of a fuel fired heater shall not preclude a

vehicle from being certified as a ZEV provided the fuel fired heater cannot be operated at ambient temperatures above 40 degrees Fahrenheit and the heater is demonstrated to have zero evaporative emissions under any and all possible operational modes and conditions.

(b) **Applicability.**This section shall apply to all 1998 and subsequent model year passenger cars and light duty trucks sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired or received in the State of Connecticut except that this section shall not apply to those vehicles listed in subsection (d).

(c) **Prohibitions.**

(1) No person shall sell, import, deliver, purchase, lease, rent, acquire or receive a new vehicle in the State of Connecticut which is subject to this section unless such new vehicle:

(A) complies with the requirements of subsection (e);

(B) is approved by CARB for sale in the State of California; and

(C) has a valid Emission Control Label.

(d) **Exemptions.**The following vehicles shall not be subject to this section:

(1) A vehicle transferred by inheritance;

(2) A vehicle transferred by decree of divorce, dissolution or legal separation entered by a court of competent jurisdiction;

(3) A vehicle purchased by a nonresident prior to establishing residency in the State of Connecticut;

(4) A vehicle sold for the purpose of being wrecked or dismantled;

(5) A vehicle sold directly from one dealer to another dealer;

(6) A vehicle sold for registration out of state;

(7) A vehicle designed exclusively for off-highway use;

(8) A vehicle which has been certified to standards promulgated pursuant to the authority contained in 42 U.S.C. 7521 and which is in the possession of a rental agency in Connecticut and is next rented with a final destination outside of Connecticut; or

(9) A vehicle which is an emergency vehicle.

(e) **Emission Standards.**

(1) Vehicle Emission Standards.

(A) The exhaust emissions from new 1998 and subsequent model-year passenger cars and light-duty trucks which are subject to this section shall not exceed those set forth in Table 36-1:

Table 36-1

1998 and Subsequent Model-Year Passenger Car and Light-Duty Truck Exhaust Emissions Standards[3 4 5 7]

(grams per mile)

Vehicle Type	*Loaded vehicle Weight (lbs)*	*Durability Vehicle Basis (mi)*	*Non-Methane Hydrocarbons*[1]	*Carbon monoxide*	*Oxides of Nitrogen*[2]
PC	All	50,000	0.25	3.4	0.4
PC	All	100,000	0.31	4.2	0.6[6]

Diesel PC	All	100,000	0.31	4.2	1.0
(Option 2)	0-3750	50,000	0.25	3.4	0.4
LDT					
LDT	0-3750	100,000	0.31	4.2	0.6[6]
Diesel	0-3750	100,000	0.31	4.2	1.0
LDT	3751-3750	50,000	0.32	4.4	0.7
(Option 2)					
LDT					
LDT	3751-3750	100,000	0.40	5.5	0.97[6]
Diesel	3751-3750	100,000	0.40	5.5	1.5
LDT					
(Option 1)					

[1]For methanol- or ethanol-fueled vehicles certifying to these standards, including fuel-flexible vehicles when certifying on methanol or ethanol, "Non-Methane Hydrocarbons" shall mean "Organic Material Non-Methane Hydrocarbon Equivalent" (or "OMNMHCE").

[2]The maximum projected emissions of oxides of nitrogen measured on the federal Highway Fuel Economy Test (HWFET; 40 CFR Part 600 Subpart B) shall be not greater than 1.33 times the applicable passenger car standards and 2.00 times the applicable light-duty truck standards shown in the table. Both the projected emissions and the HWFET standard shall be rounded in accordance with ASTM E29-67 to the nearest 0.1 g/mi before being compared.

[3]Diesel passenger cars and light-duty trucks certifying to these standards, are subject to a particulate exhaust emission standard of 0.08 g/mi, determined on a 50,000 mile durability vehicle basis.

[4]For all vehicles, except those certifying to optional diesel standards, in-use compliance with the exhaust emission standards shall be limited to vehicles with less than 75,000 miles.

[5]All passenger cars and light-duty trucks, except those diesel vehicles certifying to optional standards, are subject to non-methane hydrocarbon, carbon monoxide, and oxides of nitrogen standards determined on a 50,000 mile durability basis and non-methane hydrocarbon and carbon monoxide standards determined on an 100,000 mile durability basis.

[6]100,000 mile NOx standards are applicable for 1998 and subsequent model-year vehicles.

[7]Each manufacturer shall also comply with the requirements specified in section 1960.1 (g) (2).

(B) The exhaust emissions from new 1998 and subsequent model-year light-duty transitional low-emission vehicles, low-emission vehicles, and ultra-low-emission vehicles which are subject to this section shall not exceed those set forth in Table 36-2:

Table 36-2

Exhaust Emission Standards for Transitional Low-Emission Vehicles, Low Emission Vehicles and Ultra-Low-Emission Vehicles in Passenger Car and Light-Duty Truck Vehicle Classes[5 6 7 8 9]
(grams per mile (or "g/mi"))

Vehicle Type	*Loaded Vehicle Weight (lbs)*	*Durability Vehicle Basis (mi)*	*Vehicle Emission Category*[1]	*Non-Methane Organic Gases*[2 3]	*Carbon Monoxide*	*Oxides of Nitrogen*[4]
PC and	All	50,000	TLEV	0.125	3.4	0.4
LDT	0-3750		LEV	0.075 (0.100)	3.4 (3.4)	0.2. (0.3)
			ULEV	0.040 (0.058)	1.7 (2.6)	0.2. (0.3)
		100,000	TLEV	0.156	4.2	0.6
			LEV	0.090	4.2	0.3
			ULEV	0.055	2.1	0.3
LDT	3751-5750	50,000	TLEV	0.160	4.4	0.7
			LEV	0.100 (0.128)	4.4 (4.4)	0.4 (0.05)
			ULEV	0.050 (0.075)	2.2 (3.3)	0.4 (0.05)
		100,000	TLEV	0.200	5.5	0.9
			LEV	0.130	5.5	0.5
			ULEV	0.070	2.8	0.5

[1]"TLEV" means transitional low-emission vehicle.
"LEV" means low-emission vehicle.
"ULEV" means ultra-low-emissions vehicles.

[2]"Non-Methane Organic Gases" (or "NMOG") shall mean the total mass of oxygenated and non-oxygenated hydrocarbon emissions. To demonstrate compliance with an NMOG standard, NMOG emissions shall be measured in accordance with the "California Non-Methane Organic Gas Test Procedures" as adopted July 12, 1991 and last amended September 22, 1993, which is incorporated herein by reference. For TLEVs, LEVs, and ULEVs certified to operate exclusively on any fuel other than conventional gasoline, and for fuel-flexible and dual-fuel TLEVs, LEVs, and ULEVs when certifying on a fuel other than gasoline, manufacturers shall multiply NMOG exhaust certification levels by the applicable reactivity adjustment factor set forth in section 13 of the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" as incorporated by ref

erence in section 1960.1 (k), Title 13, California Code of Regulations, or established by the Executive Officer pursuant to Appendix VIII of the foregoing test procedures. In addition, natural gas vehicles certifying to TLEV, LEV, or ULEV standards shall calculate a reactivity-adjusted methane exhaust emission value by multiplying the methane exhaust certification level by the applicable methane reactivity adjustment factor set forth in section 13 of the above referenced test procedures. The product of the NMOG exhaust certification levels and the reactivity adjustment factor shall be compared to the exhaust NMOG mass emission standards established for the particular vehicle emission category to determine compliance. For natural gas vehicles, the reactivity-adjusted NMOG value shall be added to the reactivity-adjusted methane value and then compared to the exhaust NMOG mass emission standards established for the particular vehicle emission category to determine compliance.

(a) Each manufacturer shall certify PCs or LDTs to meet the exhaust mass emission standards for TLEVs, LEVs, ULEVs, or the exhaust emission standards of sections 1960.1 (e) (1), 1960.1 (f) (1), or 1960.1 (f) (2), Title 13, California Code of Regulations, or as Zero-Emission Vehicles such that the manufacturer's fleet average NMOG values for California-certified PCs and LDTs from 0-3750 lbs. "Loaded Vehicle Weight" (or "LVW"), and LDTs from 3751-5750 lbs. LVW produced and delivered for sale in California are less than or equal to the requirement for the corresponding Model Year, Vehicle Type, and LVW Class in section 1960.1 (g) (2), Title 13, California Code of Regulations.

[3]Fuel-flexible and dual-fuel PCs and LDTs from 0-5750 lbs. LVW shall be certified to exhaust mass emission standards for NMOG established for the operation of the vehicle on any available fuel other than gasoline, and gasoline.

(a) For TLEVs, LEVs, and ULEVs, when certifying for operation on a fuel other than gasoline, manufacturers shall multiply exhaust NMOG certification levels by the applicable reactivity adjustment factor. In addition to multiplying the exhaust NMOG certification levels by the applicable reactivity adjustment factor, natural gas vehicles shall multiply the exhaust methane certification level by the applicable methane reactivity adjustment factor and add that value to the reactivity-adjusted NMOG value. The exhaust NMOG certification levels for fuel-flexible or dual-flexible vehicles when certifying on gasoline shall not be multiplied by a reactivity adjustment factor.

(b) For PCs and LDTs from 0-3750 lbs. LVW, the applicable exhaust mass emission standard for NMOG when certifying the vehicle for operation on gasoline shall be:

(i) For TLEVs, 0.25 g/mi and 0.31 g/mi for 50,000 and 100,000 miles, respectively.

(ii) For LEVs, 0.125 g/mi and 0.156 g/mi for 50,000 and 100,000 miles, respectively.

(iii) For ULEVs, 0.075 g/mi and 0.090 g/mi for 50,000 and 100,000 miles, respectively.

(c) For LDTs from 3751-5750 lbs. LVW, the applicable exhaust mass emission standard for NMOG when certifying the vehicle for operation on gasoline shall be:

(i) For TLEVs, 0.32 g/mi and 0.40 g/mi for 50,000 and 100,000 miles, respectively.

(ii) For LEVs, 0.160 g/mi and 0.200 g/mi for 50,000 and 100,000 miles, respectively.
(iii) For ULEVs, 0.100 g/mi and 0.130 g/mi for 50,000 and 100,000 miles, respectively.
[4]The maximum projected emissions of "Oxides of Nitrogen" (or "NOx") measured on the federal Highway Fuel Economy Test (HWFET; 40 CFR 600 Subpart B) shall be not greater than 1.33 times the applicable light-duty vehicle standards shown in the table. Both the projected emissions and the HWFET standard shall be rounded in accordance with ASTM E29-67 to the nearest 0.1 g/mi before being compared.
[5]The standards in parentheses are intermediate in-use compliance standards for 50,000 miles. For PCs and LDTs from 0-5750 lbs. LVW, including fuel-flexible and dual-fuel vehicles when operating on any available fuel other than gasoline, intermediate in-use compliance standards shall apply to LEVs and ULEVs for the 1998 model-year. In-use compliance with standards beyond 50,000 miles shall be waived for the 1998 model year for LEVs and ULEVs.
(a) For TLEVs, LEVs, and ULEVs designed to operate on any fuel other than conventional gasoline, including fuel-flexible and dual-fuel vehicles when operating on any fuel other than gasoline, exhaust NMOG mass emission results shall be multiplied by the applicable reactivity adjustment factor to determine compliance with intermediate in-use compliance standards for NMOG. In addition to multiplying the exhaust NMOG emission results by the applicable reactivity adjustment factor, natural gas vehicles shall multiply the exhaust methane emission results by the applicable methane reactivity adjustment factor and add that value to the reactivity-adjusted NMOG value. Exhaust NMOG mass emissions from fuel-flexible or dual-fuel vehicles when operating on gasoline shall not be multiplied by a reactivity adjustment factor.
(b) For fuel-flexible and dual-fuel PCs and LDTs from 0-3750 lbs. LVW intermediate in-use compliance standards for NMOG emissions at 50,000 miles, when the vehicle is operated on gasoline, shall be 0.188 g/mi and 0.100 g/mi for LEVs and ULEVs, respectively.
(c) For fuel-flexible and dual-fuel PCs and LDTs from 3751-5750 lbs. LVW, intermediate in-use compliance standards for NMOG emissions at 50,000 miles, when the vehicle is operated on gasoline, shall be 0.238 g/mi and 0.128 g/mi for LEVs and ULEVs, respectively.
[6]Manufacturers of diesel vehicles shall also certify to particulate standards at 100,000 miles. For all PCs and LDTs from 0-5750 lbs. LVW, the particulate standard is 0.08 g/mi, 0.08 g/mi, and 0.04 g/mi for TLEVs, LEVs, and ULEVs, respectively.
[7]Manufacturers shall demonstrate compliance with the above standards for NMOG, CO, and NOx at 50 degrees F according to the procedure specified in section 11K of the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" as incorporated by reference in section 1960.1 (k), Title 13, California Code of Regulations. Hybrid electric, natural gas, and diesel-fueled vehicles shall be exempt from 50 degrees F test

requirements.

[8]In-use compliance testing shall be limited to vehicles with fewer than 75,000 miles.

[9]Deterioration factors for hybrid electric vehicles shall be based on the emissions and mileage accumulation of the auxiliary power unit. For certification purposes only, Type A hybrid electric vehicles shall demonstrate compliance with 50,000 mile emission standards (using 50,000 mile deterioration factors), and demonstrating compliance with 100,000 mile emission standards shall not be required. For certification purposes only, Type B hybrid electric vehicles shall demonstrate compliance with 50,000 mile emission standards (using 50,000 mile deterioration factors) and 100,000 mile emission standards (using 75,000 mile deterioration factors). For certification purposes only, Type C hybrid vehicles shall demonstrate compliance with 50,000 mile emission standards (using 50,000 mile deterioration factors) and 100,000 mile emission standards (using 100,000 mile deterioration factors).

(2) Fleet Average Emission Standards.

The fleet average non-methane organic gas exhaust emission values from a manufacturer's sales of passenger cars and light-duty trucks which are subject to this section shall not exceed those set forth in Table 36-3:

Table 36-3

Fleet Average Non-Methane Organic Gas Exhaust Emission Requirements for Light-Duty Vehicle Weight Classes[6 7 8]
(grams per mile (or "g/mi"))

Vehicle Type	*Loaded Vehicle Weight (lbs.)*	*Durability Vehicle Basis (mi)*[6]	*Model Year*	*Fleet Average Non-Methane Organic Gases*[1 2 3 4 5]
PC and LDT	ALL	50,000	1998	0.157
	0-3750		1999	0.113
			2000	0.073
			2001	0.070
			2002	0.068
			2003 & subsequent	0.062
LDT	3751-5750	50,000	1998	0.205
			1999	0.150
			2000	0.099
			2001	0.098
			2002	0.095
			2003 & Subsequent	0.093

[1]"Non-Methane Organic Gases" (or "NMOG") shall mean the total mass of oxygenated and non-oxygenated hydrocarbon emissions.

[2]For the purpose of calculating fleet average NMOG values, a manufacturer may adjust the certification levels of hybrid electric vehicles (or "HEVs") based on the range of the HEV without the use of the engine. For the purpose of calculating the adjusted NMOG emissions, the following definitions shall apply:

"Type A HEV" shall mean an HEV which achieves a minimum range of 60 miles over the All-Electric Range Test as defined in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" as incorporated by reference in section 1960.1 (k), Title 13, California Code of Regulations.

"Type B HEV" shall mean an HEV which achieves a range of 40–59 miles over the All-Electric Range Test as defined in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" as incorporated by reference in section 1960.1 (k), Title 13, California Code of Regulations.

"Type C HEV" shall mean an HEV which achieves a range of 0–39 miles over the All-Electric Range Test and all other HEVs excluding "Type A" and "Type B" HEVs as defined in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" as incorporated by reference in section 1960.1 (k), Title 13, California Code of Regulations.

(a) For the purpose of calculating fleet average NMOG values, vehicles which have no tailpipe emissions but use fuel-fired heaters and which are not certified as ZEVs shall be treated as "Type A HEV ULEVs."

[3]Each manufacturer's fleet average NMOG value for the total number of PCs and LDTs from 0-3750 lbs. "Loaded Vehicle Weight" (or "LVW") produced and delivered for sale in Connecticut shall be calculated in units of g/mi NMOG according to the following equation, where the term "Produced" means produced and delivered for sale in Connecticut as: {[(No. of Vehicles Certified to the Exhaust Emission Standards section 1960.1 (e) (1) and Produced) × (0.39)] + [No. of Vehicles Certified to the Exhaust Emission Standards in section 1960.1 (f) (1) and Produced × (0.25)] + [(No. of Vehicles Certified to the Exhaust Emission Standards in section 1960.1 (f) (2) and Produced) × (0.25)] + [(No. of Transitional Low-Emission Vehicles (or "TLEVs") excluding HEVs and Produced) × (0.125)] + [(No. of Low-Emission Vehicles (or "LEVs") excluding HEVs and Produced) × (0.075)] + [(No. of Ultra-Low-Emission Vehicles (or "ULEVs") excluding HEVs and Produced) × (0.040)] + (HEV contribution factor)}/(Total No. of Vehicles Produced, Including Zero-Emission Vehicles and HEVs): factor)}/(Total No. of Vehicles Produced, Including Zero-Emission Vehicles and HEVs):

(a) "HEV contribution factor" shall mean the NMOG emission contribution of HEVs to

the fleet average NMOG value. The HEV contribution factor shall be calculated in units of g/mi as follows, where the term "Produced" means produced and delivered for sale in Connecticut:
HEV contribution factor = {[No. of "Type A HEV" TLEVs Produced] × (0.100) + [No. of "Type B HEV" TLEVs Produced] × (0.113) + [No. of "Type C HEV" TLEVs Produced] × (0.125)} + {No. of "Type A HEV" LEVs Produced] × (0.057) + [No. of "Type B HEV" LEVs Produced] × (0.066) + [No. of "Type C HEV" LEVs Produced] × (0.075)} + {[No. of "Type A HEV" ULEVs Produced] × (0.020) + [No. of "Type B HEV" ULEVs Produced] × (0.030) + [No. of "Type C HEV" ULEVs Produced] × (0.040)}.
(b) "Zero-Emission Vehicles" (or "ZEVs") classified as LDTs 3751-5750 lbs. LVW which have been counted toward the ZEV requirements for PCs and LDTs 0-3750 lbs. LVW as specified in note (8) shall be included in the equation of note (3).
(c) Beginning with the 1996 model year, manufacturers that produce and deliver for sale in Connecticut PCs and LDTs 0-3750 lbs. LVW that are certified to federal Tier I exhaust emission standards in 40 CFR 86.094-8 and 86.094-9 shall add the following terms to the numerator of the fleet average NMOG equation in note (3) and calculate their fleet average NMOG values accordingly: [(No. of Vehicles Certified to federal Tier I exhaust emission standards and Produced) × (0.25)].
[4]Manufacturers that certify LDTs from 3751-5750 lbs. LVW, shall calculate a fleet average NMOG value in units of g/mi NMOG according to the following equation, where the term "Produced" means produced and delivered for sale in Connecticut: {[(No. of Vehicles Certified to the Exhaust Emission Standards in section 1960.1 (e) (1), and Produced × (0.50)] + [(No. of Vehicles Certified to the Phase-In Exhaust Emission Standards in section 1960.1 (f) (1), and Produced x (0.32)] + [(No. of Vehicles Certified to the Exhaust Emission Standards in section 1960.1 (f) (2), and Produced × (0.32)] + [(No. of TLEVs Produced excluding HEVs) × (0.160)] + [(No. of LEVs Produced excluding HEVs) × (0.100)] + [(No. of ULEVs Produced excluding HEVs) × (0.050)] + (HEV contribution factor)}/(Total No. of Vehicles Produced, Including ZEVs and HEVs).
(a) "HEV contribution factor" shall mean the NMOG emission contribution of HEVs to the fleet average NMOG. The HEV contribution factor shall be calculated in units of g/mi as follows, here the term "Produced" means produced and delivered for sale in Connecticut:
HEV contribution factor = {[No. of "Type A HEV" TLEVs Produced] × (0.130) + [No. of "Type B HEV" TLEVs Produced] × (0.145) + [No. of "Type C HEV" TLEVs Produced] × (0.160)} + {[No. of "Type A HEV" LEVs Produced] × (0.075) + [No. of "Type B HEV" LEVs Produced] × (0.087) + [No. of "Type C HEV" LEVs Produced] × (0.100)} + {[No. of "Type A HEV" ULEVs Produced] × (0.025) + [No. of "Type B HEV" ULEVs Produced] × (0.037) + [No. of "Type C HEV" ULEVs Produced] × (0.050)}

(b) Only ZEVs which have been certified as LDTs 3751-5750 lbs. LVW and which have not been counted toward the ZEV requirements for PCs and LDTs 0-3750 lbs. LVW as specified in note (8) shall be included in the equation of note (4).
(c) Beginning with the 1996 model year, manufacturers that produce and deliver for sale in Connecticut LDTs 3751-5750 lbs. LVW that are certified to the Tier I exhaust emission standards in 40 CFR 86.094-9 shall add the following term to the numerator of the fleet average NMOG equation in note (4) and calculate their fleet average NMOG values accordingly: [(No. of Vehicles Certified to federal Tier I exhaust emission standards and Produced and Delivered for Sale in Connecticut) × (0.32)].
[5]As used in this subsection, the term "small volume manufacturer" shall mean any vehicle manufacturer with California sales less than or equal to 3000 new PCs, LDTs and MDVs per model year based on the average number of vehicles sold by the manufacturer each model year from 1989 to 1991, except as noted below. For manufacturers certifying for the first time in California model-year sales shall be based on projected California sales. In 2000 and subsequent model years, small volume manufacturers shall comply with the fleet average NMOG requirements set forth below.
(a) Prior to the model year 2000, compliance with the specified fleet average NMOG requirements shall be waived.
(b) In 2000 and subsequent model years, small volume manufacturers shall not exceed a fleet average NMOG value of 0.075 g/mi for PCs and LDTs from 0-3750 lbs. LVW calculated in accordance with note (3).
(c) In 2000 and subsequent model years, small volume manufacturers shall not exceed a fleet average NMOG value of 0.100 g/mi for LDTs from 3751-5750 lbs. LVW calculated in accordance with note (4).
(d) If a manufacturer's average California sales exceeds 3000 units of new PCs, LDTs, and MDVs, based on the average number of vehicles sold for any three consecutive model years, the manufacturer shall no longer be treated as a small volume manufacturer and shall comply with the fleet average requirements applicable for larger manufacturers as specified in section 1960.1 (g) (2) beginning with the fourth model year after the last of the three consecutive model years.
(e) If a manufacturer's average California sales falls below 3000 units of new PCs, LDTs, and MDVs based on the average number of vehicles sold for any three consecutive model years, the manufacturer shall be treated as a small volume manufacturer and shall be subject to requirements for small volume manufacturers as specified in section 1960.1 (g) (2) beginning with the next model year.
[6]In 1992 and subsequent model years, manufacturers that achieve fleet average NMOG values lower than the fleet average NMOG requirement for the corresponding model year shall receive credits in units of g/mi NMOG determined as: {[(Fleet Average NMOG Requirement) - (Manufacturer's Fleet Average NMOG Value)] × (Total No. of Vehicles Produced and Delivered for Sale in Connecticut, Including ZEVs and HEVs)}.

(a) Manufacturers with fleet average NMOG values greater than the fleet average requirement for the corresponding model year shall receive debits in units of g/mi NMOG equal to the amount of negative credits determined by the aforementioned equation. For any given model year, the total g/mi NMOG credits or debits earned for PCs and LDTs 0-3750 lbs. LVW and for LDTs 3751-5750 lbs. LVW shall be summed together. The resulting amount shall constitute the g/mi NMOG credits or debits accrued by the manufacturer for the model year.

(b) For the 1994 through 1997 model years, manufacturers shall equalize emission debits within three model years and prior to the end of the 1998 model year by earning g/mi NMOG emission credits in an amount equal to their g/mi NMOG debits, or by submitting a commensurate amount of g/mi NMOG credits to the Executive Officer that were earned previously or acquired from another manufacturer. For 1998 and subsequent model years, manufacturers shall equalize emission debits by the end of the following model year. If emission debits are not equalized within the specified time period, the manufacturer shall be subject to the Health and Safety Code section 43211 civil penalty applicable to a manufacturer which sells a new motor vehicle that does not meet the applicable emission standards adopted by the state board. The cause of action shall be deemed to accrue when the emission debits are not equalized by the end of the specified time period. For the purpose of Health and Safety Code section 43211, the number of vehicles not meeting the state board's emission standards shall be determined by dividing the total amount of g/mi NMOG emission debits for the model year by the g/mi NMOG fleet average requirement for PCs and LDTs 0-3750 lbs. LVW applicable for the model year in which the debits were first incurred.

(c) The g/mi NMOG emission credits earned in any given model year shall retain full value through the subsequent model year.

(d) The g/mi NMOG value of any credits not used to equalize the previous model-year's debit, shall be discounted by 50% at the beginning of the second model year after being earned, discounted to 25% of its original value if not used by the beginning of the third model year after being earned, and will have no value if not used by the beginning of the fourth model year after being earned.

[7]Manufacturers that produce and deliver for sale in Connecticut vehicles certified to the phase-in exhaust emission standards in section 1960.1 (f) (1), or vehicles certified to the exhaust emission standards in section 1960.1 (f) (2) or 1960.1 (g) (1) and/or ZEVs, in the 1992 and 1993 model years, shall receive emission credits as determined by the equations in footnotes [3] , [4] , and [6].

(a) For PCs and LDTs from 0-3750 lbs. LVW, the fleet average NMOG requirement for calculating a manufacturer's emission credits shall be 0.390 and 0.334 g/mi NMOG for vehicles certified for the 1992 and 1993 model years, respectively.

(b) For LDTs from 3751-5750 lbs. LVW, the fleet average NMOG requirement for calculating a manufacturer's emission credits shall be 0.500 and 0.428 g/mi NMOG for ve

hicles certified for the 1992 and 1993 model years, respectively.

(c) Emission credits earned prior to the 1994 model year shall be considered as earned in the 1994 model year and discounted in accordance with the schedule specified in footnote 6.

(f) **Reporting Requirements.**

(1) Delivery Reporting Requirements.

For the purposes of determining compliance with the requirements of this section, commencing with the 1998 model year, each manufacturer shall submit annually, to the Department, within 60 days subsequent to the end of each model year, a report documenting total deliveries for sale of vehicles in each engine family over that model year, in the State of Connecticut.

(2) Fleet Average Emissions Reporting Requirements.

(A) For the purposes of determining compliance with the requirements of subdivision (e) (2), commencing with the 1998 model year, each manufacturer shall submit annually to the Department, within 60 days subsequent to the end of each model year, a report which demonstrates that such manufacturer has met the fleet average emissions requirements for its fleet delivered for sale in Connecticut.

(B) Prior to the commencement of each model year, commencing with the 1998 model year, each manufacturer shall submit, to the Department, a projection of the fleet average emissions for vehicles to be delivered for sale in Connecticut during such model year.

(g) **Alternative Means of Compliance via the National Low Emission Vehicle (LEV) program.**

(1) The provisions of subsections (b) through (f) of this section shall not apply to any 1999 and subsequent model year passenger car or light duty truck sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired or received in the State of Connecticut for the time period specified in subdivision (3) of this subsection if a covered manufacturer, as defined at 40 CFR 86.1702, of such vehicle complies with a National LEV program adopted by the Administrator pursuant to 42 U.S.C. 7521 (a) (1) and 42 U.S.C. 7601 (a) in accordance with the provisions set forth in 40 CFR Parts 9, 85 and 86 and 63 Federal Register 926 (January 7, 1998).

(2) For the time period specified in subdivision (3) of this subsection, manufacturers may comply with National LEV or equally stringent mandatory federal standards in lieu of compliance with any program, including any mandates for sales of zero emissions vehicles, adopted by the Commissioner pursuant to the authority provided in section 177 of the Clean Air Act, 42 U.S.C. 7507, applicable to passenger cars, light-duty trucks up through 6,000 pounds GVWR, and medium-duty vehicles from 6,001 to 14,000 pounds GVWR if designed to operate on gasoline, as these categories of motor vehicles are defined in the California Code of Regulations, Title 13, Division 3, Chapter 1, Article 1, Section 1900.

(3) The State of Connecticut, as set forth by the provisions of this subsection, shall participate in the National LEV program from model year 1999, inclusive, until model year 2006, except as expressly provided in 40 CFR 86.1707. If, by December 15, 2000, the

Administrator does not take final action to adopt standards at least as stringent as the National LEV standards provided in 40 CFR part 86 subpart R that apply to new motor vehicles in model years 2004, 2005 or 2006, participation in National LEV shall extend only until model year 2004, except as expressly provided in 40 CFR 86.1707.

(4) If a covered manufacturer, as defined at 40 CFR 86.1702, opts out of the National LEV program in accordance with the provisions of 40 CFR 86.1707, the transition from requirements imposed by the National LEV programs to the requirements imposed by the provisions of subsections (b) through (f) of this section or any program adopted by the Commissioner pursuant to the authority provided in section 177 of the Clean Air Act, 42 U.S.C. 7507, applicable to passenger cars, light-duty trucks up through 6,000 pounds GVWR, and medium-duty vehicles from 6,001 to 14,000 pounds GVWR if designed to operate on gasoline, as these categories of motor vehicles are defined in the California Code of Regulations, Title 13, Division 3, Chapter 1, Article 1, Section 1900, will proceed in accordance with 40 CFR 86.1707.

(5) Nothing in this subsection shall preclude the Commissioner from adopting and implementing requirements under section 177 of the Clean Air Act, 42 U.S.C. 7507, for heavy duty trucks and engines and diesel-powered vehicles between 6,001 and 14,000 pounds GVWR.

(h) **Fleet average enforcement.**

(1) Notwithstanding the requirement that each vehicle manufacturer meet the fleet average emission standards set forth in Table 36-3, compliance with the specified fleet average shall be waived for a vehicle manufacturer through model year 2000, provided that:

(a) such vehicle manufacturer, who is otherwise subject to Table 36-3, submits an annual report within sixty days subsequent to the end of each model year which documents the average non-methane organic gas exhaust emissions of its fleet delivered for sale into the State of Connecticut; and

(b) if such report demonstrates that the fleet mix has exceeded a fleet average emission standard set forth in Table 36-3, then such manufacturer shall submit an additional report identifying all vehicle models delivered for sale into the State of Connecticut and their corresponding certification standards and the percentage of each model delivered for sale into Connecticut and California in relation to total fleet sales.

(2) Nothing in this subsection shall prevent manufacturers that have earned credits pursuant to note 6 to subdivision (e) (2) of this section from carrying such credits to future model years in accordance with the credit provisions of note 6 to subdivision (e) (2) of this section.

(i) **Repeal provision.**The California Low Emission Vehicle, National Low Emission Vehicle and all related provisions in this section shall not be effective for 2008 and subsequent model year passenger cars and light duty trucks.

(Effective December 23, 1994; Amended March 3, 1998; Amended January 29, 1999; Amended December 3, 2004)

Sec. 22a-174-36a. Heavy-duty diesel engines (Repealed)

Repealed June 11, 2014.

(Adopted effective March 4, 2003; Repealed June 11, 2014)

Notes: For 2014 repeal, see Sec. 54 of Public Act 14-187. (June 11, 2014)

Sec. 22a-174-36b. Low emission vehicles II program

(a) **Definitions and abbreviations.** Provided that any term related to the administration of the Low Emission Vehicles II program not defined in this subsection shall be as defined or described in Title 13 of the California Code of Regulations, for the purposes of this section:

(1) "Advanced technology vehicle" means any PZEV, AT PZEV or ZEV.

(2) "Air contaminant emission control system" means the equipment designed for installation on a motor vehicle or motor vehicle engine for the purpose of reducing the air contaminants emitted from the motor vehicle or motor vehicle engine, or system or engine modification on a motor vehicle or motor vehicle engine which causes a reduction of air contaminants emitted from the motor vehicle or motor vehicle engine, including but not limited to exhaust control systems, fuel evaporation control systems, and crankcase ventilating systems.

(3) "Alternative fuel" means any fuel that is commonly or commercially known or sold as one of the following: M-100 fuel methanol, M-85 fuel methanol, E-100 fuel ethanol, E-85 fuel ethanol, compressed natural gas, liquefied petroleum gas, or hydrogen.

(4) "AT PZEV" means advanced technology partial zero emission vehicle.

(5) "CARB" means the California Air Resources Board.

(6) "Certified" means the finding by CARB that a motor vehicle, motor vehicle engine, or motor vehicle engine family, or air contaminant emission control system has satisfied the criteria adopted by CARB for the control of specified air contaminants from motor vehicles.

(7) "Dual-fuel" means a motor vehicle that is engineered and designed to be capable of operating on a petroleum fuel and on another fuel that is stored separately on-board the vehicle.

(8) "Emergency vehicle" means any publicly owned vehicle operated by a peace officer in performance of his or her duties, any authorized vehicle used for fighting fires or responding to emergency fire calls, any publicly owned authorized vehicle used by emergency medical technicians or paramedics, or used for towing or servicing other vehicles, or repairing damaged lighting or electrical equipment, or an ambulance.

(9) "Emission control label" means the permanent stickers required by CARB and affixed to all passenger cars, light duty trucks and medium-duty vehicles certified for sale in California.

(10) "Emissions-related part" means any automotive part that affects any regulated emissions from a motor vehicle or motor vehicle engine that is subject to California or federal emissions standards, as set forth in California Code of Regulations, Title 13, section

1900(b)(3).

(11) "EPA" means the United States Environmental Protection Agency.

(12) "Executive Order" means an Executive Order of CARB.

(13) "Fleet average emissions" means a motor vehicle manufacturer's average vehicle emissions of all non-methane organic gases and all greenhouse gases from all vehicles that are subject to this section, sold in the State of Connecticut in any applicable model year.

(14) "Fuel-flexible" means an alternative fuel motor vehicle that is engineered and designed for operation using any alternative fuel mixture or blend.

(15) "Greenhouse gas" means any of the following gases: carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons.

(16) "Greenhouse gas vehicle test group" means "greenhouse gas vehicle test group" as defined in California Code of Regulations, Title 13, section 1961.1.

(17) "Heavy-duty vehicle" means any motor vehicle having a manufacturer's gross vehicle weight rating greater than 6,000 pounds, except passenger cars.

(18) "Hybrid electric vehicle" or "HEV" means a motor vehicle which allows power to be delivered to the driver wheels solely by a battery powered electric motor but which also incorporates the use of a combustion engine to provide power to the battery, or any vehicle which allows power to be delivered to the drive wheels by either a combustion engine and/or by battery powered electric motor.

(19) "Independent low volume manufacturer" means "independent low volume manufacturer" as defined in California Code of Regulations, Title 13, section 1900.

(20) "Large volume manufacturer" means "large volume manufacturer" as defined in California Code of Regulations, Title 13, section 1900.

(21) "Light-duty truck" or "LDT" means any 2008 and subsequent model-year motor vehicle certified to the standards in California Code of Regulations, Title 13, section 1961(a)(1) having a gross vehicle weight rating of 8500 pounds or less, and any other motor vehicle rated at 6000 pounds or less, that is designed primarily for the purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.

(22) "Loaded vehicle weight" or "LVW" means vehicle curb weight plus 300 pounds.

(23) "Low Emission Vehicle II program" means the standards for motor vehicles, motor vehicle engines and related provisions that the State of California has adopted and is permitted to adopt under 42 USC 7543 and that the Commissioner is permitted to adopt under 42 USC 7507 as required by section 22a-174g of the Connecticut General Statutes for the implementation of such program in Connecticut.

(24) "Medium-duty passenger vehicle" means "medium-duty passenger vehicle" as defined in California Code of Regulations, Title 13, section 1900.

(25) "Medium-duty vehicle" means "medium-duty vehicle" as defined in California Code of Regulations, Title 13, section 1900.

(26) "Military tactical vehicles and equipment" means those vehicles defined by California Code of Regulations, 13, section 1905.

(27) Model year" means "model year" as defined in 40 CFR 85.2302 and determined in accordance with the provisions of 40 CFR 85.2301 through 40 CFR 85.2304, inclusive.

(28) "Neighborhood electric vehicle" or "NEV" means a motor vehicle certified to zero emission vehicle standards and meets the definition of "low speed vehicle" either in California Code of Regulations, Title 13, section 385.5 or in 49 CFR 571.500.

(29) "New vehicle" means any passenger car or light duty truck with 7,500 miles or fewer on its odometer.

(30) "NMOG" means non-methane organic gas;

(31) "Passenger car" or "PC" means any motor vehicle designed primarily for transportation of persons having a design capacity of twelve persons or less.

(32) "Offset vehicle" means a vehicle that has been certified by the State of California as set forth in the California Code of Regulations, Title 13, section 1960.5.

(33) "PZEV" means partial ZEV as defined in California Code of Regulations, Title 13, section 1962.

(34) "Small volume manufacturer" means "small volume manufacturer" as defined in California Code of Regulations, Title 13, section 1900.

(35) "Travel provision" means the provision of the California Code of Regulations that entitles a manufacturer to full credit for each Type III ZEV placed in service prior to model year 2012 in California or any other state that has adopted the California ZEV mandate.

(36) "Vehicle" means any motor vehicle.

(37) "VECs" means vehicle equivalent credits.

(38) "ZEV" means a zero emission vehicle.

(b) **Applicability.**

(1) This section shall apply to all 2008 through 2014 model year passenger cars and light duty trucks sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired or received, in the State of Connecticut except that this subdivision shall not apply to those vehicles listed in subsection (d) of this section.

(2) This section shall apply to all 2009 through 2014 model year medium-duty vehicles sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired or received, in the State of Connecticut except that this subdivision shall not apply to those vehicles listed in subsection (d) of this section.

(3) The greenhouse gas emission standards set forth in subparagraph(c)(1)(G) of this section and related provisions in this section shall apply to all 2009 through 2016 model year passenger cars, light-duty trucks and medium-duty passenger vehicles sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired or received, in the State of Connecticut except that this subdivision shall not apply to those vehicles listed in subsection (d) of this section.

(c) **Prohibitions and compliance requirements.**

(1) Unless subject to an exemption listed in subsection (d) of this section, no person shall sell or register, offer for sale or lease, import, deliver, purchase, rent, lease, acquire or receive a new 2008 through 2014 model year passenger car or light duty truck or a 2009 through

2014 model year medium-duty vehicle or medium-duty passenger vehicle in the State of Connecticut unless such vehicle is certified to California emission standards and meets:

(A) The exhaust emission standards set forth in the California Code of Regulations, Title 13, sections 1956.8(g) or (h), 1960.1, 1961(a), 1962(a) or 1962.1(a);

(B) The evaporative emission standards set forth in the California Code of Regulations, Title 13, section 1976;

(C) The refueling emissions standards set forth in the California Code of Regulations, Title 13, section 1978;

(D) The malfunction and diagnostic system requirements set forth in the California Code of Regulations, Title 13, 1968.1;

(E) The assembly-line testing procedure requirements set forth in the California Code of Regulations, Title 13, section 2062;

(F) The specifications for fill pipes and openings of motor vehicle fuel tanks set forth in the California Code of Regulations, Title 13, section 2235; and

(G) The greenhouse gas emission standards set forth in the California Code of Regulations, Title 13, section 1961.1; and

(H) On or after January 1, 2009, the emission control label and environmental performance label requirements, including smog and greenhouse gas index scores, set forth in the California Code of Regulations, Title 13, section 1965 or the Federal Fuel Economy and Emission Label, set forth in 40 CFR parts 85,86, and 600.

(2) **ZEV mandate.**

(A) For the 2008 through 2017 model years, each manufacturer's sales fleet of passenger cars and light duty trucks produced and delivered for sale in the State of Connecticut shall contain at least the same percentage of ZEVs subject to the same requirements, including early credit, banking, and travel provisions, set forth in the California Code of Regulations, Title 13, section 1962 using Connecticut specific vehicle numbers.

(B) Alternative compliance mechanisms. As an alternative means of compliance with the requirements of subparagraph (A) of this subdivision, an automobile manufacturer may instead opt to comply with the provisions of subsection (m) of this section.

(C) Until such time that NEVs can be legally registered in Connecticut and operated with restrictions no more stringent than imposed by the State of California, manufacturers that generate ZEV credits in California through the sale of NEVs shall receive Connecticut credits for those sales. Such credits shall be transferred annually using the ZEV credit account transfer ratio determined in accordance with subsection (m)(3), as applicable to the manufacturer.

(D) For the 2009 through 2017 model years, each manufacturer's sales fleet of passenger cars and light duty trucks produced and delivered for sale in the State of Connecticut shall contain at least the same percentage of ZEVs subject to the same requirements, including early credit, banking, and travel provisions, set forth in the California Code of Regulations, Title 13, section 1962.1 using Connecticut specific vehicle numbers.

(E) Optional Section 177 State Compliance Path. Large volume manufacturers and intermediate volume manufacturers that elect the optional path set forth in the California Code of Regulations, Title 13, subdivision 1962.1(d)(5)(E)(3) shall inform the commissioner in writing of such election no later than September 1, 2014.

(3) All vehicle manufacturers shall comply with the fleet average, warranty, recall and other applicable requirements set forth in subsections (e), (f), (g), (h), (i), (j), (k), and (n) of this section.

(d) **Exemptions.** The following vehicles shall not be subject to this section:

(1) A vehicle transferred by inheritance;

(2) A vehicle transferred by decree of divorce, dissolution or legal separation entered by a court of competent jurisdiction;

(3) A vehicle purchased by a nonresident prior to establishing residency in the State of Connecticut;

(4) A vehicle sold for the purpose of being wrecked or dismantled;

(5) A vehicle sold directly from one dealer to another dealer;

(6) A vehicle sold for registration out of state;

(7) A vehicle sold or designed exclusively for off-highway use;

(8) A vehicle that has been certified to standards promulgated pursuant to the authority contained in 42 U.S.C. 7521 and which is in the possession of a rental agency in Connecticut and is next rented with a final destination outside of Connecticut;

(9) AN emergency vehicle;

(10) A military tactical vehicle;

(11) A vehicle exempted by California Health and Safety Code, section 43656; or

(12) A vehicle acquired by a resident of this state for the purpose of replacing a vehicle registered to such resident that was damaged or became inoperative beyond reasonable repair or was stolen while out of this state, provided that such replacement vehicle is acquired out of state at the time the previously owned vehicle was either damaged or became inoperative or was stolen.

(e) **Emission standards, warranty, recall and miscellaneous provisions.**

Each manufacturer and each new 2008 through 2017 model year passenger car and light-duty truck that is subject to this section shall comply with each applicable standard set forth in Table 36b-1 and incorporated by reference herein:

Table 36b-1 California Code of Regulations (CCR) Title 13 Provisions Incorporated by Reference

Title 13 CCR	Title	Section Amended Date
	Chapter 1 Motor Vehicle Pollution Control Devices	

	Article 1 General Provisions	
Section 1900	Definitions	12/31/12
	Article 2 Approval of Motor Vehicle Pollution Control Devices **(New Vehicles)**	
Section 1956.8(g) and (h)	Exhaust Emission Standards and Test Procedures – 1985 and Subsequent Model Heavy Duty Engines and Vehicles	12/31/12
Section 1960.1	Exhaust Emission Standards and Test Procedures – 1981 and through 2006 Model Passenger Cars, Light-Duty and Medium-Duty Vehicles	12/31/12
Section 1961	Exhaust Emission Standards and Test Procedures – 2004 through 2019 Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles	12/31/12
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(f) **Fleet average requirements, reporting and projections, and delivery reporting requirements.**

(1) Effective for 2008 through 2014 model years, the fleet average NMOG gas emission values from passenger cars and light-duty trucks vehicles produced and delivered for sale in the State of Connecticut by a manufacturer for each model year shall not exceed the fleet average numbers set forth in California Code of Regulations, Title 13, sections 1960.1(g)(2) and 1961(b)(1), except as provided in section 1960.1(g)(2) and 1961(b)(1). Effective for 2008 and subsequent model years, manufacturers may earn and bank NMOG credits in accordance with California Code of Regulations, Title 13, section 1961, except NMOG credits earned prior to model year 2011 shall be treated as though they were earned in model year 2011 and no debits shall be carried forward after model year 2011.

(2) Effective for 2009 through 2014 model years, each manufacturer shall comply with the medium-duty vehicle phase-in requirements and, for 2004 and subsequent model years, may earn and bank VECs, both in accordance with California Code of Regulations, Title 13, section 1961, except VECs earned prior to model year 2012 shall be treated as though they were earned in model year 2012.

(3) A manufacturer that certifies vehicles equipped with direct ozone reduction technologies is eligible to receive NMOG credits for use in fleet average compliance determinations. A manufacturer shall submit to the commissioner a CARB Executive Order, obtained in accordance with California Code of Regulations Title 13, section 1960.1(g)(1), which shall determine the value of such credits for vehicles delivered for sale in the State of Connecticut, when the manufacturer submits its annual NMOG fleet average report.

(4) Credits and debits may be accrued and utilized based upon each manufacturer's sales of vehicles subject to this part in the State of Connecticut, pursuant to the provisions set forth in the California Code of Regulations Title 13, sections 1960.1(g)(2) and 1961(c).

(5) Commencing with the 2008 model year, each manufacturer shall report to the commissioner, using the same format used to report such information to CARB, the average emissions of its fleet delivered for sale in the State of Connecticut. The report shall be submitted to the commissioner, or the commissioner's designee, no later than March 1st of the calendar year succeeding the end of the model year. Commencing with the 2009 model year, such report shall include medium-duty vehicles.

(6) Delivery reporting requirements. For the purposes of determining compliance with the requirements of this section, commencing with the 2008 model year, each manufacturer shall submit annually, to the commissioner, by March 1st of the calendar year succeeding the end of the model year, a report documenting total deliveries for sale of vehicles in each engine family over that model year in the State of Connecticut. Commencing with the 2009 model year, such report shall include medium-duty vehicles.

(7) The fleet average greenhouse gas exhaust emission levels for passenger cars, light-duty trucks, and medium-duty passenger vehicles that are produced and delivered for sale in the State of Connecticut by a large volume manufacturer for each 2009 through 2016 model year are established as, and shall be determined in accordance with, the provisions set forth in California Code of Regulations, Title 13, sections 1961.1.

(8) The fleet average greenhouse gas exhaust emission levels for passenger cars, light-duty trucks, and medium-duty passenger vehicles that are produced and delivered for sale in the State of Connecticut by a small volume manufacturer or an independent low volume manufacturer through model year 2016 are established as, and shall be determined in accordance with, the provisions set forth in California Code of Regulations, Title 13, sections 1961.1.

(9) Greenhouse gas credits and debits may be accrued and used based on each manufacturer's sale of vehicles subject to the greenhouse gas provisions of this section in the State of Connecticut in accordance with the provisions set forth in California Code of Regulations, Title 13, section 1961.1.

(g) **Fleet Average Emissions Reporting Requirements.**

(1) For the purposes of determining compliance with the requirements of subsections (c)(3) and (e) of this section, for the 2008 through 2014 model years, each manufacturer shall submit annually to the Department, by March 1st of the calendar year succeeding the end of the model year, a report which demonstrates that such manufacturer has met the fleet average emissions requirements for its fleet delivered for sale in Connecticut. Commencing with the 2009 model year, such report shall include medium-duty vehicles.

(2) For the 2009 through 2016 model years, each manufacturer shall report the average greenhouse gas emissions of its fleet delivered for sale in the State of Connecticut, using the same format used to report such information to CARB. Such report shall be filed with the commissioner by May 1st of the calendar year succeeding the end of the model year and

shall include the number of greenhouse gas vehicle test groups certified pursuant to subsection (m)(5) of this section, delineated by model type, delivered for sale into the State of Connecticut.

(h) **Fleet average enforcement.** If**,** commencing with the 2011 model year and for each applicable model year thereafter, the report issued by a manufacturer pursuant to subsection (g) of this section demonstrates noncompliance with the fleet average emission standards incorporated by reference into this section and set forth in Table 36b-1 of this section, during a model year, the manufacturer shall within sixty (60) days file a Fleet Average Enforcement Report with the commissioner documenting such noncompliance. The Fleet Average Enforcement Reports shall identify all vehicle models delivered for sale into the State of Connecticut and their corresponding certification standards and the percentage of each model delivered for sale into the State of Connecticut and California in relation to total fleet sales in the respective state. Enforcement of the medium-duty vehicle phase-in requirements shall begin in the 2012 model year.

(i) **Reporting and offset vehicle reporting.**

(1) The manufacturer shall make available upon request a copy of the California Executive Order and Certificate of Conformity relating to certification of new motor vehicles for each engine family to be sold in the State of Connecticut. To the extent such reports are available electronically, the manufacturer shall submit such records in an electronic format acceptable to the commissioner.

(2) For the purposes of determining compliance with this section, the commissioner may require any vehicle manufacturer subject to this section to submit any documentation the commissioner deems necessary to the effective administration and enforcement of this section including all certification materials submitted to CARB.

(3) Offset vehicle reporting. Commencing with the 2008 model year, by March 1st of the calendar year succeeding the end of the model year, each manufacturer shall report to the commissioner the number of offset vehicles, categorized by model type, delivered for sale into the State of Connecticut during such model year. The report shall also include the total number of the manufacturer's fleet delivered for sale into the State of Connecticut.

(j) **Warranty requirements.**

(1) For all 2008 and subsequent model year vehicles subject to the provisions of this section and for all 2009 and subsequent model year medium-duty vehicles subject to the provisions of this section, each manufacturer shall provide a warranty to the ultimate purchaser and each subsequent purchaser that complies with the requirements set forth in California Code of Regulations, Title 13, sections 2035 through 2038, 2040 and 2046.

(2) For all 2008 and subsequent model year vehicles subject to the provisions of this section and for all 2009 and subsequent model year medium-duty vehicles subject to the provisions of this section, each manufacturer shall include the emission control system warranty statement that complies with the requirements set forth in California Code of Regulations, Title 13, sections 2039 modified as may be necessary to inform Connecticut vehicle owners of the applicability of the California warranty. The manufacturer shall also

provide a telephone number on such statement appropriate for the State of Connecticut.

(k) **Recalls.**

(1) For all 2008 and subsequent model year vehicles subject to the provisions of this section and for all 2009 and subsequent model year medium-duty vehicles subject to the provisions of this section, each manufacturer shall undertake an action equivalent to that required by any order or enforcement action taken by CARB, or any voluntary or influenced emission related recall initiated by any manufacturer pursuant to or required by California Code of Regulations, Title 13, sections 2101 through 2120, 2122 through 2133, 2135 through 2149, and 2166 through 2174, unless within thirty (30) days of CARB approval of such recall, the manufacturer demonstrates to the commissioner that such recall is not applicable to vehicles registered in the State of Connecticut.

(2) For vehicles subject to an action pursuant to subdivision (1) of this subsection, each manufacturer shall send to owners of vehicles registered in the State of Connecticut a notice that complies with the requirements set forth in California Code of Regulations, Title 13, sections 2118, 2127, or 2172.3, provided that such notice shall contain a telephone number appropriate for use in the State of Connecticut.

(*l*) **Incorporation by reference. Availability and interpretation of referenced material.**

(1) In accordance with the provisions of section 22a-174g of the Connecticut General Statutes, this section incorporates by reference certain sections of Title 13, California Code of Regulations relating to the implementation and the administration of the Low Emission Vehicle II program and subsequent greenhouse gas requirements in the State of Connecticut. Table 36b-1 lists the sections of Title 13, California Code of Regulations incorporated by reference and the respective amended date for each section.

(2) Copies of the relevant sections of Title 13, California Code of Regulations incorporated by reference in this section are available by contacting:

Connecticut Department of Environmental Protection
Bureau of Air Management
Planning & Standards Division
79 Elm Street
Hartford, Connecticut 06106
(860) 424-3027

(3) For purposes of applying the incorporated sections of the California Code of Regulations, unless clearly inappropriate, "California" shall mean "Connecticut."

(m) **Alternative compliance mechanisms.**

(1) A manufacturer may, as an alternative means of compliance with the requirements of subsection (c)(2) of this section, proceed in accordance with the provisions of subdivision (2) or (3) of this subsection.

(2) A manufacturer may earn Connecticut ZEV credits for the introduction into Connecticut of PZEVs, AT PZEVs and ZEVs provided that:

(A) The vehicle credit values for this alternative compliance path shall be the same as in the California Code of Regulations, Title 13, section 1962.

(B) After the credit value for a vehicle is established by CARB pursuant to California Code of Regulations, Title 13, section 1962, a Connecticut multiplier will be applied to such credit value for that vehicle in accordance with Table 36b-2. The Connecticut multiplier shall apply to PZEVs, AT PZEVs and ZEVs produced for sale in Connecticut prior to the 2004 model year. Such multiplier shall not be applied to type III ZEVs.

Table 36b-2

Connecticut Multiplier				
Model Year	**Requirement**	**PZEV Credit Multiplier**	**AT PZEV Credit Multiplier**	**ZEV Credit Multiplier**
2004	Voluntary Early Introduction	1.5	2.25	3
2005	Voluntary Early Introduction	1.5	2.25	3
2006	Voluntary Early Introduction	1.3	1.7	2
2007	Voluntary Early Introduction	1.15	1.3	1.5
2008	Mandatory Compliance	1.15	1.3	1.5
2009	Equivalency with California Program	1	1	1

(C) Connecticut ZEV credit use, life, banking and trading will be calculated as per California Code of Regulations, Title 13, section 1962.

(D) Each manufacturer operating under this alternative compliance path shall submit a compliance report to the commissioner along with annual sales reports no later than May 1st following the completed model year. The compliance report shall include vehicle sales organized by engine family and identify the number and type of Connecticut credits earned. Such report may be amended based on late sales.

(E) Each manufacturer operating under this alternative compliance path shall make available for purchase or lease in Connecticut any advanced technology vehicle models, including all ZEVs except type III ZEVs sold or leased in California.

(F) The commissioner shall calculate the amount of credits earned based on the report received pursuant to subparagraph (D) of this subdivision. The commissioner shall establish ZEV compliance accounts for each manufacturer and allocate the credits earned to such compliance account, including separate accounts for PZEV, AT PZEV, NEV, Type 0 ZEVs, Type I ZEVs, Type II ZEVs, Type III ZEVs, transportation system and extended service. For each account, in the event that the number of credits earned under this subdivision is less than the number of credits that would have been awarded to a manufacturer under subdivision (3) of this subsection, the commissioner shall calculate the difference and apply a number of credits equal to such difference to such manufacturer's compliance account.

(3) The commissioner shall set aside a number of Connecticut ZEV credits proportionally equivalent to the number of ZEV credits possessed by the requesting manufacturer for use in the State of California at the beginning of the 2008 model year. This transfer shall be performed only after all credit obligations for the 2007 and earlier model years have been satisfied in California. The commissioner shall multiply the manufacturer's California credit balances by the ratio of the average number of PCs and LDT1s produced and delivered for sale in Connecticut to the combined average number of PCs and LDT1s produced and delivered for sale in California in model years 2000 through 2002 or, alternatively, by the ratio of PCs and LDT1s produced and delivered for sale in Connecticut to the combined number of PCs and LDT1s produced and delivered for sale in California in model year 2008. In either case, the commissioner shall determine the model year 2008 ZEV sales requirements in Connecticut using the same time period that determined the credit transfer ratio. The commissioner shall notify such manufacturer of the number of ZEV credits, allocated in accordance with subdivision (2)(F) of this subsection, available for use by July 31, 2008 and annually thereafter until such credits are fully consumed. Credits issued pursuant to this subdivision may only be used in Connecticut for compliance with the ZEV provisions of subsection (c)(2) of this section subject to the same requirements and limitations on credit use set forth in the California Code of Regulations, Title 13, section 1962 adjusted for Connecticut specific vehicle numbers. Furthermore, each manufacturer operating under this alternative compliance path shall:

(A) By May 1, 2008, provide the commissioner with either:

(i) the total number of PC and LDT1 vehicles produced and delivered for sale in Connecticut and California for 2000 through 2002 model years, or

(ii) the total projected number of PC and LDT1 vehicles to be produced and delivered for sale in Connecticut and California in model year 2008.

(B) (i) By March 1, 2009, any manufacturer that provides the projected number of vehicles specified in subparagraph (A)(ii) of this subdivision shall provide the commissioner with the actual number of PC and LDT1 vehicles produced and delivered for sale in Connecticut and California in model year 2008.

(ii) The commissioner shall, by June 30 2009, recalculate and adjust, either upward or downward, the number of ZEV credits granted based on actual model year 2008 production and delivery data submitted under subparagraph (B)(i) of this subdivision.

(C) By May 1, 2008, provide the commissioner with the total number of banked California ZEV credits after all 2007 model year and earlier obligations have been satisfied in California; and

(D) Until such time as full compliance is achieved with the requirements of subsection (c)(2) of this section, make available for purchase or lease in Connecticut any advanced technology vehicle models, including all ZEVs except type III ZEVs, that are sold, leased or offered for sale in California.

(4) Any manufacturer who fails to meet the requirements of its respective alternative compliance path shall be subject to full compliance with the ZEV mandate provisions set forth in subsection (c)(2) of this section.

(5) Optional alternative compliance with greenhouse gas emission standards.

(A) Greenhouse gas vehicle test groups that are certified pursuant to California Code of Regulations, Title 13, section 1961.1(e)(2)(a) in the State of California may receive equivalent credit if delivered for sale and use in the State of Connecticut; and

(B) A manufacturer shall submit to the commissioner the data set forth in California Code of Regulations, Title 13, section 1961.1(e)(2)(a)(i) for Connecticut specific and use in order to receive the credit identified in subparagraph (A) of this subdivision.

(n) **Greenhouse gas emission standards and related requirements.**

(1) Each manufacturer subject to the greenhouse gas provisions of this section shall demonstrate compliance with such provisions as required by, and in accordance with, California Code of Regulations, Title 13, section 1961.1.

(2) For all 2009 and subsequent model year vehicles, manufacturers may demonstrate compliance based on the total number of passenger cars, light-duty trucks, and medium-duty passenger vehicles certified to the California exhaust emission standards in California Code of Regulations, Title 13, section 1961.1, which are produced and delivered for sale in Connecticut, California, and all other states that have adopted California's greenhouse gas emission standards pursuant to section 177 of the Clean Air Act. A manufacturer that fails to comply under the provisions of this subdivision shall be subject to applicable penalties and shall be required to comply with the greenhouse gas standards pursuant to subdivision

(1) of this subsection.

(3) For the 2012 through 2016 model years, a manufacturer may elect to demonstrate compliance with the California exhaust emissions standards by demonstrating compliance with the national greenhouse gas program pursuant to California Code of Regulations, Title 13, section 1961.1. A manufacturer with outstanding greenhouse gas debits at the end of the 2011 model year shall submit a plan to the Department describing how the debits will be offset utilizing credits earned under the national greenhouse gas program.

(o) **Severability.**

Each provision of this section is deemed severable, and in the event that any provision of this section is held to be invalid, the remainder of this section shall continue in full force and effect.

(Adopted effective December 3, 2004; Amended December 22, 2005; Amended August 10, 2009; Amended September 10, 2012; Amended August 1, 2013)

Sec. 22a-174-36c. Low Emission Vehicle III Program.

(a) **Definitions and abbreviations.** Provided that any term related to the administration of the Low Emission Vehicles III program not defined in this subsection shall be as defined or described in Title 13 of the California Code of Regulations and in Section 22a-174-36b of the Regulations of Connecticut State Agencies, for the purposes of this section:

(1) "Transitional Zero Emission Vehicle" or ("TZEV") means transitional Zero emission vehicle as defined in California Code of Regulations, Title 13, section 1962.2.

(2) "East Region Pool" means east region pool as defined in California Code of Regulations, Title 13, section 1962.2.

(3) "2017 through 2025 Model Year National Greenhouse Gas Program" means the Environmental Protection Agency program that applies to new 2021 through 2025 model year passenger cars, light-duty trucks, and medium duty passenger vehicles codified in 40 CFR 86, Subpart S, as last amended on October 25, 2016.

(b) **Applicability.**

This section shall apply to all 2015 and subsequent model year passenger cars, light duty trucks, and medium-duty passenger vehicles sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired or received, in the State of Connecticut except that this subdivision shall not apply to those vehicles listed in subsection (d) of this section.

(c) **Prohibitions and compliance requirements.**

(1) Unless subject to an exemption listed in subsection (d) of this section, no person shall sell or register, offer for sale or lease, import, deliver, purchase, rent, lease, acquire or receive a new 2015 or subsequent model year passenger car, light duty truck, or medium-duty passenger vehicle in the State of Connecticut unless such vehicle is certified to California emission standards and meets:

(A) The exhaust emission standards set forth in the California Code of Regulations, Title 13, sections 1956.8(h), 1961.2 or 1962.2;

(B) The evaporative emission standards set forth in the California Code of Regulations,

Title 13, section 1961.2;

(C) The refueling emissions standards set forth in the California Code of Regulations, Title 13, section 1978;

(D) The malfunction and diagnostic system requirements set forth in the California Code of Regulations, Title 13, 1968.2;

(E) The assembly-line testing procedure requirements set forth in the California Code of Regulations, Title 13, section 2062;

(F) The specifications for fill pipes and openings of motor vehicle fuel tanks set forth in the California Code of Regulations, Title 13, section 2235;

(G) Beginning with the 2017 model year, the greenhouse gas emission standards set forth in the California Code of Regulations, Title 13, section 1961.3; and

(H) The emission control label and environmental performance label requirements, including smog and greenhouse gas index scores, set forth in the California Code of Regulations, Title 13, section 1965 or the Federal Fuel Economy and Emission Label, set forth in 40 CFR parts 85, 86, and 600.

(2) ZEV mandate.

(A) Beginning with the 2018 model year, each manufacturer's sales fleet of passenger cars and light duty trucks produced and delivered for sale in the State of Connecticut shall contain at least the same percentage of ZEVs subject to the same requirements set forth in the California Code of Regulations, Title 13, section 1962.2 using Connecticut specific vehicle numbers.

(B) Optional Section 177 State Compliance Path. Large Volume manufacturers and intermediate volume manufacturers that elect the optional path set forth in the California Code of Regulations, Title 13, subdivision 1962.1(d)(5)(E)(3) shall inform the commissioner in writing of such election no later than September 1, 2014.

(C) Until such time that NEVs can be legally registered in Connecticut and operated with restrictions no more stringent than imposed by the State of California, manufacturers that generate ZEV credits in California through the sale of NEVs shall receive proportional credits for those sales.

(3) All vehicle manufacturers shall comply with the fleet average, warranty, recall and other applicable requirements set forth in subsections (e), (f), (g), (h), (i), (j), and (k) of this section.

(d) **Exemptions.** The following vehicles shall not be subject to this section:

(1) A vehicle transferred by inheritance;

(2) A vehicle transferred by decree of divorce, dissolution or legal separation entered by a court of competent jurisdiction;

(3) A vehicle purchased by a nonresident prior to establishing residency in the State of Connecticut;

(4) A vehicle sold for the purpose of being wrecked or dismantled;

(5) A vehicle sold directly from one dealer to another dealer;

(6) A vehicle sold for registration out of state;

(7) A vehicle sold or designed exclusively for off-highway use;

(8) A vehicle that has been certified to standards promulgated pursuant to the authority contained in 42 U.S.C. 7521 and which is in the possession of a rental agency in Connecticut and is next rented with a final destination outside of Connecticut;

(9) AN emergency vehicle;

(10) A military tactical vehicle;

(11) A vehicle exempted by California Health and Safety Code, section 43656; or

(12) A vehicle acquired by a resident of this state for the purpose of replacing a vehicle registered to such resident that was damaged or became inoperative beyond reasonable repair or was stolen while out of this state, provided that such replacement vehicle is acquired out of state at the time the previously owned vehicle was either damaged or became inoperative or was stolen.

(e) **Emission standards, warranty, recall and miscellaneous provisions.**

Each manufacturer and each new 2015 and subsequent model year passenger car, light-duty truck and medium-duty vehicle shall comply with each applicable standard set forth in Table 36c-1 and incorporated by reference herein:

Table 36c-1 California Code of Regulations (CCR) Title 13 Provisions Incorporated by Reference

Title 13 CCR	Title	Section Amended Date
Chapter 1 Motor Vehicle Pollution Control Devices		
Article 1 General Provisions		
Section 1900	Definitions	7/25/16
Article 2 Approval of Motor Vehicle Pollution Control Devices (New Vehicles)		
Section 1956.8(g) and (h)	Exhaust Emission Standards and Test Procedures – 1985 and Subsequent Model Heavy Duty Engines and Vehicles	12/31/12
Section 1960.1	Exhaust Emission Standards and Test Procedures – 1981 and through 2006 Model Passenger Cars, Light-Duty and Medium-Duty Vehicles	12/31/12
Section 1961	Exhaust Emission Standards and Test Procedures – 2004 through 2019 Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles	12/31/12
Section 1961.1	Greenhouse Gas Exhaust Emission Standards and Test Procedures – 2009 through 2016 and Subsequent Model Passenger	8/7/12

	Cars, Light-Duty Trucks and Medium-Duty Vehicles.	
Section 1961.2	Exhaust Emission Standards and Test Procedures - 2015 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles	12/12/18
Section 1961.3	Greenhouse Gas Exhaust Emission Standards and Test Procedures - 2017 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles	12/12/18
Section 1962	Zero Emission Vehicle Standards for 2005 through 2017 Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles	2/13/10
Section 1962.2	Zero Emission Vehicle Standards for 2018 and subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles	1/1/16
Section 1962.3	California Vehicle Charging Requirements	8/7/12
Section 1965	Emission Control and Smog Index Labels – 1979 and Subsequent Model Year Vehicles	10/8/15
Section 1968.1	Malfunction and Diagnostic System Requirements – 1994 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles	11/27/99
Section 1968.2	Malfunction and Diagnostic System Requirements – 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles	7/25/16
Section 1968.5	Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines	7/25/16
Section 1976	Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions	10/8/15
Section 1978	Standards and Test Procedures for Vehicle Refueling Emissions	10/8/15

Article 6 Emission Control System Warranty

Section 2035	Purpose, Applicability and Definitions	10/9/07
Section 2036	Defects Warranty Requirements for 1979 through 1989 Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles; 1979 and Subsequent Model Year Motorcycles and Heavy-Duty Vehicles; and Motor Vehicle Engines Used in Such Vehicles.	12/5/14
Section 2037	Defects Warranty Requirements for 1990 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles and Motor Vehicle Engines Used in Such Vehicles	12/5/14
Section 2038	Performance Warranty Requirements for 1990 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles and Motor Vehicle Engines Used in Such Vehicles	8/7/12
Section 2039	Emission Control System Warranty Statement.	12/26/90
Section 2040	Vehicle Owner Obligations	12/26/90
Section 2046	Defective Catalyst	1/16/79

Chapter 2 Enforcement of Vehicle Emission Standards and Enforcement Testing.

Article 1 Assembly Line Testing.

Section 2062	Assembly-line Test Procedures 1998 and Subsequent Model-years.	8/7/12

Article 2 Enforcement of New and In-use Vehicle Standards

Section 2101	Compliance Testing and Inspection – New Vehicle Selection, Evaluation and Enforcement Action.	11/27/99
Section 2109	New Vehicle Recall Provisions.	12/30/83
Section 2110	Remedial Action for Assembly-Line Quality Audit Testing of Less than a Full Calendar Quarter of Production Prior to the 2001 Model-Year.	11/27/99

Article 2.1 Procedures for In-Use Vehicle Voluntary and Influenced Recalls.

Section 2111	Applicability.	12/8/10
Section 2112	Definitions.	12/5/14

	Appendix A to Article 2.1.	8/7/12
Section 2113	Initiation and Approval of Voluntary and Influenced Recalls.	1/26/95
Section 2114	Voluntary and Influenced Recall Plans.	11/27/99
Section 2115	Eligibility for Repair.	1/26/95
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Section 2118	Notification.	1/26/95
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Article 2.2 Procedures for In-Use Vehicle Ordered Recalls.		
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Section 2123	Initiation and Notification of Ordered Emission-Related Recalls.	1/26/95
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Article 2.3 In-Use Vehicle Enforcement Test Procedures.		
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Section 2146	Emissions Information Report.	11/27/99
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Section 2148	Evaluation of Need for Recall.	11/27/99
Section 2149	Notification of Subsequent Action.	2/23/90
Chapter 4.4 Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks.		
Section 2235	Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks Requirements.	8/8/12

(f) **Fleet average requirements.**

(1) Effective for 2015 and subsequent model years, the fleet average NMOG plus NOx emission values from passenger cars, light-duty trucks and medium-duty vehicles produced and delivered for sale in the State of Connecticut by a manufacturer for each model year shall not exceed the fleet average numbers set forth in California Code of Regulations, Title 13, section 1961.2. Effective for 2015 and subsequent model years, manufacturers may earn and bank credits in accordance with California Code of Regulations, Title 13, section 1961.2.

(2) Credits and debits may be accrued and utilized based upon each manufacturer's sales of vehicles subject to this part in the State of Connecticut, pursuant to the provisions set forth in the California Code of Regulations Title 13, sections 1961.2.

(g) **Reporting requirements.**

(1) Compliance and fleet average reporting requirements. For the purposes of determining compliance with the requirements set forth in subsection (c)(3) of this section, commencing with the 2015 model year, each manufacturer shall submit annually to the Department, by March 1st of the calendar year succeeding the end of the model year, a report which demonstrates that such manufacturer has met the fleet average emissions requirements for its fleet delivered for sale in Connecticut. Such report shall include the average emissions of its fleet delivered for sale in the State of Connecticut.

(2) Delivery reporting requirements. For the purposes of determining compliance with the requirements of this section, commencing with the 2015 model year, each manufacturer shall submit annually, to the Department, by March 1st of the calendar year succeeding the end of the model year, a report documenting total deliveries for sale of vehicles in each engine family over that model year in the State of Connecticut.

(3) The manufacturer shall make available to the commissioner upon request a copy of the California Executive Order and Certificate of Conformity relating to certification of new motor vehicles for each engine family to be sold in the State of Connecticut. To the extent such reports are available electronically, the manufacturer shall submit such records in an electronic format acceptable to the commissioner.

(4) For the purposes of determining compliance with this section, the commissioner may

require any vehicle manufacturer subject to this section to submit any documentation the commissioner deems necessary to the effective administration and enforcement of this section including all certification materials submitted to CARB.

(h) **Fleet average enforcement.**

If, commencing with the 2015 model year and for each subsequent model year thereafter, the report issued by a manufacturer pursuant to subsection (g)(1) of this section demonstrates noncompliance with the fleet average emission standards incorporated by reference into this section and set forth in Table 36c-1 of this section, during a model year, the manufacturer shall within sixty (60) days file a Fleet Average Enforcement Report with the commissioner documenting such noncompliance. The Fleet Average Enforcement Report shall identify all vehicle models delivered for sale into the State of Connecticut and their corresponding certification standards and the percentage of each model delivered for sale into the State of Connecticut and California in relation to total fleet sales in the respective state.

(i) **Warranty requirements.**

(1) For all 2015 and subsequent model year vehicles subject to the provisions of this section, each manufacturer shall provide a warranty to the ultimate purchaser and each subsequent purchaser that complies with the requirements set forth in California Code of Regulations, Title 13, sections 2035 through 2038, 2040 and 2046.

(2) For all 2015 and subsequent model year vehicles subject to the provisions of this section, each manufacturer shall include the emission control system warranty statement that complies with the requirements set forth in California Code of Regulations, Title 13, sections 2039 modified, as may be necessary, to inform Connecticut vehicle owners of the applicability of the California warranty. The manufacturer shall also provide a telephone number on such statement appropriate for the State of Connecticut.

(j) **Recalls.**

(1) For all 2015 and subsequent model year vehicles subject to the provisions of this section, each manufacturer shall undertake an action equivalent to that required by any order or enforcement action taken by CARB, or any voluntary or influenced emission-related recall initiated by any manufacturer pursuant to or required by California Code of Regulations, Title 13, sections 2101 through 2120, 2122 through 2133, and 2135 through 2149, unless within thirty (30) days of CARB approval of such recall, the manufacturer demonstrates to the commissioner that such recall is not applicable to vehicles registered in the State of Connecticut.

(2) For vehicles subject to an action pursuant to subdivision (1) of this subsection, each manufacturer shall notify owners of vehicles registered in the State of Connecticut in accordance with the requirements set forth in California Code of Regulations, Title 13, sections 2118 or 2127, provided that such notification shall contain a telephone number appropriate for use by vehicle owners or operators in the State of Connecticut.

(k) **ZEV requirements and reporting.**

(1) Each manufacturer subject to the zero emission vehicle provisions of this section

shall demonstrate compliance with such provisions as required by, and in accordance with, Code of California Regulations, Title 13, section 1962.2.

(2) ZEV Compliance reporting. Each manufacturer shall submit a ZEV compliance report to the Department along with annual sales reports no later than May 1st following the completed model year. The compliance report shall include vehicle sales organized by engine family and identify the number and type of Connecticut credits earned. Such report may be amended based on late sales.

(3) Optional 177 State Compliance Path. Manufacturers that choose the optional 177 state path set forth in 1962.1(d)(5)(E)(3) shall notify the Commissioner no later than September 1, 2014.

(4) Pooling Compliance reporting requirements. For the purposes of determining compliance with optional path set forth in Title 13, 1962.1(d)(5)(E)(3), each manufacturer electing the alternative compliance path shall submit a report to the Department no later than May 1st following the completed model year. The report shall include vehicles placed into service in the east region pool, organized by vehicle type.

(5) Any manufacturer who fails to meet the requirements of its respective optional compliance path as determined by California in Title 13, subsection 1961.2(d)(5)(E)(3), shall be subject to the primary compliance path of the ZEV mandate provisions set forth in Title 13, section 1962.2(b) from the year following the first year of noncompliance.

(*l*) **Greenhouse gas emission standards and related requirements.**

(1) Each manufacturer subject to the greenhouse gas provisions of this section shall demonstrate compliance with such provisions as required by, and in accordance with, California Code of Regulations, Title 13, section 1961.3.

(2) For all 2017 and subsequent model year vehicles, manufacturers may demonstrate compliance based on the total number of passenger cars, light-duty trucks, and medium-duty passenger vehicles certified to the California exhaust emission standards in California Code of Regulations, Title 13, section [1961.1] 1961.3, which are produced and delivered for sale in Connecticut, California, and all other states that have adopted California's greenhouse gas emission standards pursuant to section 177 of the Clean Air Act. A manufacturer that fails to comply under the provisions of this subdivision shall be subject to applicable penalties and shall be required to comply with the greenhouse gas standards pursuant to subdivision (1) of this subsection.

(3) (A) For the 2017 through 2025 model years, a manufacturer may elect to demonstrate compliance with the California exhaust emission standards by demonstrating compliance with the "2017 through 2025 Model Year National Greenhouse Gas Program" pursuant to California Code of Regulations, Title 13, section 1961.3.

(B) The compliance option of subparagraph (A) of this subdivision shall not be available for 2021 through 2025 model year passenger cars, light-duty trucks, and medium duty passenger vehicles if the "2017 through 2025 Model Year National Greenhouse Gas Program is amended subsequent to October 25, 2016.

(4) Greenhouse gas reporting requirements. For the purpose of determining compliance

with the greenhouse gas requirements of this section, each manufacturer shall report the average greenhouse gas emissions of its fleet delivered for sale in the State of Connecticut, using the same format used to report such information to CARB. If the voluntary compliance option described in subdivision (2) of this subsection is used, a manufacturer shall report separate data for the multi-state pool and the Connecticut portion of such pool. Such report shall be filed with the commissioner by May 1st of the calendar year succeeding the end of the model year.

(m) **Incorporation by reference. Availability and interpretation of referenced material.**

(1) In accordance with the provisions of section 22a-174g of the Connecticut General Statutes, this section incorporates by reference certain sections of Title 13, California Code of Regulations relating to the implementation and the administration of the Low Emission Vehicle III program in the State of Connecticut. Table 36c-1 lists the sections of Title 13, California Code of Regulations incorporated by reference and the respective amended date for each section.

(2) Copies of the relevant sections of Title 13, California Code of Regulations incorporated by reference in this section are available by contacting:

Connecticut Department of Energy and Environmental Protection
Bureau of Air Management
Planning & Standards Division
79 Elm Street
Hartford, Connecticut 06106
(860) 424-3027

(3) For purposes of applying the incorporated sections of the California Code of Regulations, unless clearly inappropriate, "California" shall mean "Connecticut."

(n) **Severability.**

Each provision of this section is deemed severable, and in the event that any provision of this section is held to be invalid, the remainder of this section shall continue in full force and effect.

(Effective August 1, 2013; Amended December 20, 2018)

Sec. 22a-174-37. Reserved

Sec. 22a-174-38. Municipal waste combustors

(a) **Definitions.** For purposes of this section:

(1) "Calendar quarter" means a consecutive three-month period (nonoverlapping) beginning on January 1, April 1, July 1 or October 1.

(2) "Calendar year" means the twelve consecutive month period starting on January 1 and ending on December 31.

(3) "Chief operator" means an individual who is in direct charge of the operation of a municipal waste combustor plant and who is responsible for overall on-site supervision, technical direction, management and performance of the plant.

(4) "Continuous burning" means the continuous, semi-continuous or batch feeding of municipal solid waste for purposes of waste disposal, energy production or providing heat to the combustion system in preparation for waste disposal or energy production. Continuous burning does not include the use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate.

(5) "Continuous emission monitoring system" or "CEM system" means a monitoring system for continuously measuring the emissions of any pollutant from a MWC unit.

(6) "Dioxin/furan" means tetra-chlorinated dibenzo-p-dioxins and dibenzofurans through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.

(7) "Dscf/mmBTU" means dry cubic feet at standard conditions per million British thermal unit.

(8) "Eight-hour block average" or "8-hour block average" means the arithmetic mean of all hourly emission concentrations or parameter levels when a municipal waste combustor unit is operating and combusting municipal solid waste measured over any of the following three 8-hour periods of time: midnight to 8 a.m.; 8 a.m. to 4 p.m.; or 4 p.m. to midnight.

(9) "F-factor," "fc" or "fd" means a ratio of combustion gas volume to heat input either unit-specific or as defined in 40 CFR 60, Appendix A, Method 19.

(10) "Four-hour block average" or "4-hour block average" means the arithmetic mean of all hourly emission concentrations or parameter levels when a municipal waste combustor unit is operating and combusting municipal solid waste measured over any of the following six 4-hour periods of time: midnight to 4 a.m.; 4 a.m. to 8 a.m.; 8 a.m. to noon; noon to 4 p.m.; 4 p.m. to 8 p.m.; or 8 p.m. to midnight.

(11) "Historical actual twenty-four hour daily NO_x average" means one or more calendar years of CEM data from no earlier than 1994 or another period of data approved by the commissioner as representative of NO_x emissions.

(12) "Malfunction" means any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment or a process to operate in a normal or usual manner. A failure that is caused in part by poor maintenance or negligent or careless operation shall not be considered a malfunction.

(13) "Mass burn waterwall combustor" means a field-erected combustor that combusts primarily unprocessed municipal solid waste (i.e., municipal solid waste that is not processed-municipal solid waste) in a waterwall furnace.

(14) "Maximum demonstrated municipal waste combustor unit load" means the highest 4-hour block average municipal waste combustor unit load achieved during four consecutive hours of operation that corresponds to a test run during the most recent dioxin/furan emissions performance test that demonstrates compliance with the applicable limit for dioxin/furan specified in subsection (c) of this section.

(15) "Maximum demonstrated particulate matter control device temperature" means the highest 4-hour block average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours of operation that corresponds to a test run during

the most recent dioxin/furan emissions performance test that demonstrates compliance with the applicable limit for dioxin/furan specified in subsection (c) of this section.

(16) "mg/dscm" means milligrams of air pollutant per dry standard cubic meter.

(17) "Modification" means "modification or modified municipal waste combustor unit" as defined in 40 CFR 60.51b.

(18) "Municipal solid waste" means municipal solid waste as defined in section 22a-207 of the Connecticut General Statutes.

(19) "Municipal waste combustor," "municipal waste combustor unit" or "MWC" means any part or activity of any stationary source which part or activity emits or has the potential to emit any regulated air pollutant or any hazardous air pollutant, exclusive of associated air pollution control equipment, that combusts municipal solid waste, inclusive of those emissions units constructed prior to January 1, 2007 combusting a single-item waste stream of tires. Combustors that combust landfill gases collected by landfill gas collection systems are not municipal waste combustors.

(20) "Municipal waste combustor plant" or "plant" means any premises at which one or more municipal waste combustor units are situated.

(21) "Municipal waste combustor unit load" means the rate at which steam is produced at a municipal waste combustor (measured in lbs/hr or kg/hr).

(22) "ng/dscm" means nanograms of air pollutant per dry standard cubic meter.

(23) "NO_x Emissions Reductions Credit" or "ERC" means an air pollutant reduction created in the nitrogen oxides emissions trading program described by this section.

(24) Reserved.

(25) "Ozone season" means the period of any calendar year beginning on May 1 and ending on September 30.

(26) "Premises" means the grouping of all stationary sources at any one location and owned by or under the control of the same person or persons.

(27) "Processed-municipal solid waste" means a type of municipal solid waste produced by sorting municipal solid waste by size and/or altering the size of municipal solid waste through mechanical means.

(28) "Processed-municipal solid waste combustor" means a steam-generating MWC that burns processed-municipal solid waste in a semisuspension firing mode using air-fed distributors.

(29) "Reciprocating grate waste tire fired incinerator/boiler" means a combustor that burns tires as its principal fuel.

(30) "Scf/mmBTU" means cubic feet at standard conditions per million British thermal unit.

(31) "Shift operator" means an individual who is in direct charge of the operation of a shift of a municipal waste combustor plant and who is responsible for on-site supervision, technical direction, management and overall performance of the plant during a shift.

(32) "Shutdown period" means the period of time commencing when a municipal waste combustor operator discontinues the feed of municipal solid waste to the combustor in order

to cease operation.

(33) "Six-minute arithmetic average" or "6-minute arithmetic average" means the arithmetic mean calculated from thirty-six (36) or more data points equally spaced over each 6-minute period.

(34) "Standard conditions" means a temperature of 20 degrees centigrade and a pressure of 101.3 kilopascals.

(35) "Startup period" means that period of time commencing when a municipal waste combustor begins the continuous burning of municipal solid waste, exclusive of any warmup period when a municipal waste combustor is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

(36) "Total mass" or "total mass dioxin/furan" means the total mass of tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans, as determined using EPA Reference Method 23 and the procedures specified under subsection (i)(4) of this section.

(37) "Twenty-four hour daily average" means the arithmetic mean of all hourly emission concentrations as required by this section when a unit is operating and combusting municipal solid waste measured over a 24-hour period between midnight and the following midnight.

(38) "Twenty-four hour daily geometric average" means the geometric mean of hourly emission concentrations as required by this section when a unit is operating and combusting municipal solid waste measured over a 24-hour period between midnight and the following midnight. The geometric mean shall be calculated using the following equation:

$$G = e^{\left[\frac{1}{n}\sum_{j=1}^{n}\left[\ln\left(Aj\right)\right]\right]}$$

where:

G = daily geometric average pollutant concentration, corrected to 7% O_2or equivalent percent CO_2;

A_j= arithmetic average pollutant concentration, for hour j, corrected to 7% O_2or equivalent percent CO_2;

n = total number of hourly averages for which pollutant concentrations are available within the 24 hour midnight to midnight daily period;

ln = the natural log function; and

e = the natural logarithmic base (2.718).

(39) "Waterwall furnace" means a combustion unit having energy (heat) recovery in the furnace (i.e., radiant heat transfer section) of the combustor.

(b) **Applicability.**

(1) This section shall apply to the owner or operator of any municipal waste combustor except for a MWC unit that meets the conditions of either subparagraph (A) or (B) of this subdivision:

(A) The unit is subject to 40 CFR 60 Subpart Eb and the owner has obtained for that unit a permit issued under section 22a-174-3a of the Regulations of Connecticut State Agencies, which permit contains emission limits at least as stringent as those stated in subsection (c) of this section for sulfur oxides and mercury; or

(B) The unit is subject to 40 CFR 60 Subpart AAAA and the owner has obtained for that unit a permit issued under section 22a-174-3a of the Regulations of Connecticut State Agencies, which permit contains emission limits at least as stringent as those stated in subsection (c) of this section for sulfur oxides and mercury.

(2) A physical or operational change including installation of control equipment made to a municipal waste combustor primarily to comply with any emission standard required by permit, order or regulation is not considered in determining whether the unit is a modified or reconstructed facility under this section.

(3) The owner or operator of any municipal waste combustor required to have a permit under section 3005 of the Solid Waste Disposal Act (42 U.S.C.A. section 6925) is not subject to this section for the operation of such unit.

(4) The owner or operator of any recycling facility as defined in section 22a-207 of the general statues, including a primary or secondary smelter, that combusts waste for the primary purpose of recovering metals is not subject to this section for the operation of such unit.

(5) The owner or operator of a cement kiln firing municipal solid waste is not subject to this section for the operation of such unit.

(6) The owner or operator of a municipal waste combustor unit to which this section applies shall not be subject to section 22a-174-22e of the Regulations of Connecticut State Agencies for such unit.

(c) **Emission limits.**

(1) No owner or operator of a municipal waste combustor unit subject to this section shall cause or allow the emission from such unit of any air pollutant in excess of the applicable emission limit identified in Table 38-1 of this subdivision.

Table 38-1. Air Pollutant Emission Limits.

Air pollutant	**Emission limit**
Particulate matter	25 mg/dscm
Cadmium	0.035 mg/dscm
Lead	0.400 mg/dscm
Mercury	0.028 mg/dscm, or 85% reduction by weight measured as required by subsection (c)(7) of this section
Sulfur dioxide — Reciprocating grate waste tire fired incinerator/boilers	51 parts per million by volume (ppmvd), or 75% reduction by weight or volume measured as required by subsection (c)(7)

	of this section
Sulfur dioxide — Mass burn waterwall combustors for which construction commenced after December 20, 1989	29 parts per million by volume (ppmvd), or 80% reduction by weight or volume measured as required by subsection (c)(7) of this section
Sulfur dioxide — All other MWCs	29 parts per million by volume (ppmvd), or 75% reduction by weight or volume measured as required by subsection (c)(7) of this section
Hydrogen chloride	29 parts per million by volume (ppmvd), or 95% reduction by weight or volume measured as required by subsection (c)(7) of this section
Hydrogen chloride — Mass burn waterwall combustors for which construction commenced after December 20, 1989	25 parts per million by volume (ppmvd), or 95% reduction by weight or volume measured as required by subsection (c)(7) of this section
Dioxin/furan	30 ng/dscm total mass
Opacity	10%

(2) Reserved.

(3) Continuous compliance with the particulate matter, cadmium, lead, mercury, hydrogen chloride and/or dioxin/furan emission limits shall be determined based on an initial performance test, annual performance test or other appropriate performance test, as determined in writing by the commissioner, unless otherwise allowed by this section. Such tests shall be performed as required by subsection (i) of this section.

(4) Continuous compliance with the sulfur dioxide emission limits contained herein shall be based on a 24-hour daily geometric average of the hourly arithmetic average emission concentrations using CEM system outlet data if compliance is based on an emission concentration, or CEM system inlet and outlet data if compliance is based on a percent reduction.

(5) Continuous compliance with the opacity emission limit contained herein shall be based on a six-minute arithmetic average.

(6) For an air pollutant for which this subsection provides for an emission limit measured either as a concentration or as a percentage reduction by weight or volume, the less stringent emission limit shall prevail.

(7) For an air pollutant for which this subsection provides for an emission limit measured either as a percent reduction by weight or a percent reduction by volume, compliance shall be determined by measuring the concentration of air pollutant at the outlet of the air pollution control device that discharges directly to the stack, subtracting it from the

concentration at the inlet of the air pollution control device that receives exhaust gases directly from the combustion chamber, dividing the difference by the concentration of air pollutant at the inlet to the air pollution control device that receives exhaust gases directly from the combustion chamber and then multiplying that result by a factor of one-hundred (100).

(8) No owner or operator of a municipal waste combustor shall cause or allow the emission of nitrogen oxides (NO_x) in excess of the applicable emission limit as follows:

(A) Prior to the date specified in subparagraph (B) of this subdivision, in excess of the applicable emission limit listed in Table 38-2 of this subdivision; and

(B) Commencing twelve (12) months after the effective date of this subparagraph, in excess of the applicable emission limit listed in Table 38-2A of this subdivision.

Table 38-2. Nitrogen Oxides Emission Limits.

Municipal waste combustor technology	**Nitrogen oxides emission limit, measured in parts per million volume, corrected to seven percent oxygen, dry basis, or equivalent percentage carbon dioxide as specified in subdivision (12) of this subsection**
Mass burn refractory combustor	177
Mass burn waterwall combustor for which construction commenced on or before December 31, 1985	200
Mass burn waterwall combustor for which construction commenced after December 31, 1985	177
Processed-municipal solid waste combustor	146
Reciprocating grate waste tire fired incinerator/boiler	79

Table 38-2A. Additional Nitrogen Oxides Emission Limits.

Municipal waste combustor technology	**Nitrogen oxides emission limit, measured in parts per million volume, corrected to seven percent oxygen, dry basis, or equivalent percentage carbon dioxide as specified in subdivision (12) of this subsection**
Mass burn refractory combustor	177
Mass burn waterwall combustor	150

Processed-municipal solid waste combustor	146
Reciprocating grate waste tire fired incinerator/boiler	79

(9) Continuous compliance with the nitrogen oxides emission limits contained herein shall be based on a 24-hour daily average.

(10) No owner or operator of a municipal waste combustor unit subject to this section shall cause or allow an emission of carbon monoxide in excess of the applicable emission limit identified in Table 38-3 of this subdivision.

Table 38-3. Carbon Monoxide Emission Limits.

Municipal waste combustor technology	**Carbon monoxide emission limit, measured in parts per million volume at the combustor outlet and corrected to seven percent oxygen, dry basis, or equivalent percentage carbon dioxide as specified in subdivision (c)(12) of this section**	**Averaging time, in hours, calculated as an arithmetic average**
Mass burn refractory combustor	100	4
Mass burn waterwall combustor	100	4
Processed-municipal solid waste combustor	200	24
Reciprocating grate waste tire fired incinerator/boiler	180	4

(11) The emission limits and operating requirements of this section shall apply at all times except during periods of startup, shutdown or malfunction as provided in this subdivision:

(A) For determining compliance with an applicable carbon monoxide emissions limit, if a loss of boiler water level control or a loss of combustion air control is determined to be a malfunction, the duration of the malfunction period shall be limited to fifteen (15) hours per occurrence. Otherwise, the duration of each startup, shutdown or malfunction period shall be limited to three hours per occurrence for all MWC units;

(B) For the purpose of compliance with the opacity emission limits, during each period of startup, shutdown or malfunction, the opacity limits shall not be exceeded during more

than five (5) 6-minute arithmetic average measurements; and

(C) During periods of startup, shutdown, or malfunction, monitoring data shall be excluded from calculations of compliance with the emission limits and operating requirements of this subdivision but shall be recorded and reported in accordance with subsections (k) and (*l*) of this section.

(12) All emission limits in this subsection, except for those identified for opacity, shall be corrected to seven percent oxygen (7% O_2), unless the owner or operator submits information to justify a correction to an equivalent percent carbon dioxide (% CO_2) and receives the commissioner's written approval. If the owner or operator of a MWC seeks to use an equivalent % CO_2, the owner or operator must demonstrate the relationship between O_2 and CO_2 levels as specified in subsection (i)(4)(J) of this section and submit a written report to the commissioner summarizing the results of the demonstration. This relationship may be reestablished during any performance test conducted pursuant to subsection (i) of this section.

(13) Reserved.

(14) Notwithstanding subparagraphs (D), (E) and (F) of subdivision (4) of subsection (i) of this section, for the purpose of submitting compliance certifications or for the purpose of the commissioner establishing whether the owner or operator has violated or is in violation of any emission limit or standard in this subdivision, nothing shall preclude the commissioner's use, including the exclusive use, of any appropriate performance test results, credible evidence or information relevant to demonstrating compliance with the applicable requirements of this section.

(15) Notwithstanding subdivision (12) of this subsection, the owner or operator of a reciprocating grate waste tire fired incinerator/boile$_r$ shall correct all emission $_l$imits, except for those identified for opacity, to 12% CO_2.

(16) On and after January 1, 2018, no owner or operator of a municipal waste combustor unit using a selective non-catalytic reduction system for control of nitrogen oxides shall cause or allow the emission of ammonia in excess of the applicable emission limit identified in Table 38-4.

Table 38-4. Ammonia Emission Limit.

Air pollutant	**Emission limit**
Ammonia	20 parts per million by volume (ppmvd) at 7% oxygen

(17) Continuous compliance with the ammonia emission limit established in subdivision (16) of this subsection shall be determined based on either annual stack testing as specified in subsection (i)(4)(L) of this section or a CEM system as specified in subsection (j)(4) of this section.

(d) Reserved.

(e) Reserved.

(f) **Fugitive ash emissions.**

(1) No owner or operator of a municipal waste combustor plant shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system, including conveyor transfer points, in excess of five percent (5 %) of the observation period (i.e., nine (9) minutes per three-hour period), as specified in subsection (i)(4)(I) of this section.

(2) The emission limit specified in subdivision (1) of this subsection does not cover visible emissions discharged inside buildings or within enclosures of ash conveying systems; however, the emission limit specified in subdivision (1) of this subsection does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(3) The provisions specified in subdivision (1) of this subsection do not apply during maintenance and repair of ash conveying systems, however, all reasonable measures to control fugitive emissions on such occasions shall be implemented.

(g) **Operating practices.**

(1) No owner or operator of a municipal waste combustor unit shall cause or allow such unit to operate at a temperature, measured at each particulate control device inlet, more than seventeen (17) degrees centigrade, based on a 4-hour block average, above the maximum demonstrated particulate control device temperature measured during the most recent performance test for dioxin/furan emissions for which compliance with the dioxin/furan emissions limit was achieved.

(2) No owner or operator of a municipal waste combustor unit shall cause or allow such unit to operate at a municipal waste combustor unit load greater than one hundred ten percent (110%) of the maximum demonstrated municipal waste combustor unit load, based on a 4-hour block average, measured during the most recent performance test for dioxin/furan emissions for which compliance with the dioxin/furan emissions limit was achieved. Municipal waste combustor unit load shall be measured by a steam flow meter.

(3) An owner or operator may, notwithstanding subdivisions (1) and (2) of this subsection, during the annual dioxin/furan emissions performance test and for two (2) weeks prior to such test, allow temperatures in excess of that specified in subdivision (1) of this subsection and municipal waste combustor unit load limits in excess of that specified in subdivision (2) of this subsection. However, should the owner or operator operate the unit at such excess temperatures and load, the owner or operator shall not again be allowed to operate at such excess temperatures and load during that test period without the approval of the commissioner should the annual dioxin/furan emission performance test be postponed.

(4) The particulate matter control device temperature limits, municipal waste combustor unit load limit and the average carbon mass feed rate may be waived temporarily by the commissioner to allow evaluation of system performance, testing of new technology or control technologies or diagnostic testing, provided that any such temporary waiver is authorized through a permit or order issued prior to an evaluation of system performance, testing of new technology or control technologies or diagnostic testing.

(5) During the operation of a MWC unit, the carbon injection system operating parameter(s) that is the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average shall equal or exceed the level(s) documented during the performance tests specified under subsection (i) of this section.

(6) Notwithstanding subdivision (5) of this subsection, during the annual dioxin/furan or mercury performance test and the two weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for the average mass carbon feed rate if the provisions of subdivision (4) of this subsection are met.

(h) **Operator training and certification.**

(1) No owner or operator of a municipal waste combustor plant shall cause or allow such plant to be operated at any time unless a certified chief operator or shift operator is physically present at the plant.

(2) Operators shall be certified by the commissioner under section 22a-231-1 of the Regulations of Connecticut State Agencies and shall be identified as either a Class I or Class II chief operator or a Class I or Class II shift operator.

(3) Not later than six (6) months after the date of employment, all chief operators and shift operators must satisfactorily complete an operator training course conducted by the commissioner.

(4) The owner or operator of a municipal waste combustor shall have a site-specific Municipal Waste Combustor Operating & Maintenance Manual with an index. Such Municipal Waste Combustor Operating & Maintenance Manual shall be updated on an annual basis. The Municipal Waste Combustor Operating & Maintenance Manual shall include:

(A) A summary of the applicable emission limits and operational requirements;

(B) A description of basic combustion theory applicable to a municipal waste combustor unit;

(C) Procedures for receiving, handling, and feeding municipal solid waste;

(D) Procedures for startup, shutdown and malfunction;

(E) Procedures for maintaining proper combustion air supply levels;

(F) Procedures for operating the combustor within the standards established under this section;

(G) Procedures for responding to periodic upset or off-specification conditions;

(H) Procedures for minimizing particulate matter carryover;

(I) Procedures for handling ash;

(J) Procedures for monitoring emissions; and

(K) Procedures for reporting and record keeping.

(5) The owner or operator of a municipal waste combustor plant shall establish a training program to review the Municipal Waste Combustor Operating & Maintenance Manual with each person who has responsibilities affecting the operation of a MWC plant including, but not limited to, the chief operator, shift operator, ash handler, maintenance employee and

crane/load handler. The owner or operator shall train new employees with the job positions identified in this subdivision prior to each new employee's assumption of any responsibilities at a MWC plant. Following initial training, the training program shall be repeated on an annual basis for each person identified in this subdivision.

(6) The Operating & Maintenance Manual shall be kept in a location readily accessible to all persons identified in subdivision (5) of this subsection and shall be available for inspection by the commissioner or Administrator upon request.

(i) **Performance testing.**

(1) All performance tests shall be conducted under representative full load operating conditions.

(2) The owner or operator of a municipal waste combustor shall conduct an annual performance test for dioxin/furan, particulate matter, hydrogen chloride, cadmium, lead, mercury and fugitive ash at least once per calendar year. Such test shall be conducted no less than nine (9) calendar months and no more than fifteen (15) calendar months following the previous performance test for such pollutant.

(3) Notwithstanding subdivision (2) of this subsection, upon demonstration for two (2) consecutive years that the dioxin/furan emission levels from all units at a MWC plant for which construction commenced prior to September 20, 1994 are less than fifteen (15) ng/dscm total mass or, for all units for which construction, modification or reconstruction commenced on or after September 20, 1994, and are less than seven (7) ng/dscm total mass, the MWC owner or operator shall only be required to conduct performance testing for dioxin/furan on one unit at that MWC plant. The owner or operator shall rotate performance testing among units in a fixed sequence so that each unit is tested at the same frequency. One unit at the plant shall be tested at least once per calendar year, and such test shall be conducted no less than nine calendar months and no more than 15 calendar months following the previous performance test. If in any year following the year of election of such reduced testing, the dioxin/furan emission test results indicate a level equal to or greater than fifteen (15) ng/dscm total mass for any unit for which construction commenced prior to September 20, 1994, or greater than seven (7) ng/dscm total mass for any unit for which construction, modification or reconstruction commenced on or after September 20, 1994, then the MWC owner or operator shall resume testing of all units at the MWC plant during the next annual performance test. The owner or operator shall continue to test all units on an annual basis until the performance tests for all units indicate dioxin/furan emission levels that meet the requirements of this subdivision, at which time the owner/operator may resume testing in accordance with this subdivision.

(4) Each MWC owner or operator shall employ the following methodologies:

(A) Testing for particulate matter and opacity levels shall be conducted in accordance with the following procedures:

(i) 40 CFR 60, Appendix A, Reference Method 1 shall be used to select the sampling site and number of traverse points for particulate matter testing,

(ii) 40 CFR 60, Appendix A, Reference Method 3 shall be used for flue gas analysis for

particulate matter testing,

(iii) 40 CFR 60, Appendix A, Reference Method 5 or 29 shall be used for determining compliance with the particulate matter emission limit. For each Method 5 or Method 29 test run: the minimum sample volume shall be 1.7 cubic meters; the probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 degrees centigrade; and an oxygen or carbon dioxide measurement shall be obtained simultaneously. For each Method 29 test run, the minimum sample time shall be two (2) hours,

(iv) 40 CFR 60, Appendix A, Reference Method 9 shall be used for determining compliance with the opacity emissions limit, except as provided under 40 CFR 60.11(e), and

(v) The compliance determination for particulate matter shall be based on an arithmetic average determined using all data generated in three (3) test runs as required by this section;

(B) Testing for cadmium and lead levels shall be conducted in accordance with the following procedures:

(i) 40 CFR 60, Appendix A, Reference Method 1 shall be used for determining the location and number of sampling points,

(ii) 40 CFR 60, Appendix A, Reference Method 3 shall be used for flue gas analysis,

(iii) 40 CFR 60, Appendix A, Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits,

(iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under this section,

(v) The minimum sample time shall be two (2) hours per each Method 29 test run, and

(vi) The compliance determinations for cadmium and lead shall be based on an arithmetic average determined using all data generated in three (3) test runs as required by this section;

(C) Testing for mercury levels shall be conducted in accordance with the following procedures:

(i) 40 CFR 60, Appendix A, Reference Method 1 shall be used for determining the location and number of sampling points,

(ii) 40 CFR 60, Appendix A, Reference Method 3 shall be used for flue gas analysis,

(iii) 40 CFR 60, Appendix A, Reference Method 29 shall be used for determining compliance with the mercury emission limits. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for mercury required under this section,

(iv) The minimum sample time shall be two (2) hours per each Method 29 test run,

(v) The percent reduction in the potential mercury emissions ($\%P_{Hg}$) is computed using the following:

$$\left(\%P_{Hg}\right) = \left(\frac{E_i - E_o}{Ei}\right) \times 100$$

where:

$\%P_{hg}$ = percent reduction of the potential mercury emissions achieved.

E_i = potential mercury emission concentration measured at the control device inlet, corrected to 7% O_2 (dry basis).

E_o = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7_2 (dry basis), and

(vi) The compliance determinations for mercury shall be based on an arithmetic average of emission concentrations or percent reductions determined using all data generated in a minimum of at least three (3) test runs as required by this section;

(D) Compliance with the sulfur dioxide emission limit (measured as a concentration or as a percent reduction by weight or volume) shall be determined by using the CEM system specified in subsection (j)(1) of this section;

(E) Compliance with the nitrogen oxide emission limit shall be determined by using the CEM system specified in subsection (j)(1) of this section;

(F) Compliance with the carbon monoxide emission limit shall be determined by using the CEM system specified in subsection (j)(1) of this section;

(G) Testing for hydrogen chloride levels shall be conducted in accordance with the following procedures:

(i) 40 CFR 60, Appendix A, Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for Method 26 shall be one (1) hour,

(ii) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 26 test run for hydrogen chloride required by this section,

(iii) The percent reduction in potential hydrogen chloride emissions (% P_{HCl}) shall be computed using the following equation:

$$(\%P_{HCl}) = \left(\frac{E_i - E_o}{Ei}\right) \times 100$$

where:

$\%P_{HCl}$ = percent reduction of the potential hydrogen chloride emissions achieved.

E_i = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7% O_2 (dry basis).

EE_o = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 % O_2 (dry basis), and

(iv) The compliance determination for hydrogen chloride shall be based on an arithmetic average of emission concentrations or percent reductions determined using all data generated in three (3) test runs as required by this section;

(H) Testing for dioxin/furan levels shall be conducted in accordance with the following procedures:

(i) 40 CFR 60, Appendix A, Reference Method 1 shall be used for determining the

location and number of sampling points,

(ii) 40 CFR 60, Appendix A, Reference Method 3 shall be used for flue gas analysis,

(iii) 40 CFR 60, Appendix A, Reference Method 23 shall be used for determining the dioxin/furan emission concentration,

(iv) The minimum sample time shall be four (4) hours per test run,

(v) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 23 test run for dioxin/furan required by this section, and

(vi) The compliance determination for dioxin/furan levels shall be based on an arithmetic average determined using all data generated as required by this section in three (3) test runs;

(I) Testing for fugitive ash emissions shall be conducted in accordance with the following procedures:

(i) 40 CFR 60, Appendix A, Reference Method 22 shall be used for determining compliance with the fugitive ash emissions limit,

(ii) The minimum observation time shall be a series of three (3) one-hour observations, and

(iii) The observation period shall include representative operational times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks;

(J) Testing for the relationship between carbon dioxide and oxygen shall be conducted in accordance with the following procedures:

(i) At least three (3) test runs of CO_2 and O_2 diluent data shall be obtained using the procedures and methods contained in 40 CFR 60, Appendix A, Reference Method 3A or 3B,

(ii) For each test run, using the following equation, a calculation shall be made of the CO_2 correction factor which is equivalent to a 7% O_2 correction factor:

$$CO_2 \text{ correction factor} = \frac{13.9}{(20.9 - O_{2measured})} \times CO_{2measured}$$

, and

(iii) Calculation of a unit-specific equivalent CO_2 correction factor shall be the arithmetic mean of the result obtained from the three (3) test runs and the calculation of the CO_2 correction factor for each test run pursuant to subparagraph (J)(ii) of this subdivision, rounded to the nearest whole number;

(K) During the performance tests for dioxin/furan and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as follows:

(i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions, and

(ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions; and

(L) Compliance with the ammonia emission limit established in subdivision (16) of subsection (c) of this section shall be determined for each unit by either using a CEM system specified in subdivision (4) of subsection (j) of this section or annual stack testing conducted in accordance with the following procedures:

(i) 40 CFR 60, Appendix A, Reference Method 26A or another method approved by the commissioner and the EPA shall be used to determine compliance with the ammonia emission limit,

(ii) The emission compliance determination for ammonia shall be based on an arithmetic average determined using all data generated in three test runs, and

(iii) The minimum sample time shall be one hour per each Method 26A test run.

(5) The initial performance test for ammonia, as applicable, shall be conducted at the time the first annual performance test after January 1, 2018 is conducted. Subsequent annual performance tests for ammonia shall be conducted not earlier than nine (9) calendar months and not later than fifteen (15) calendar months following the previous performance test for ammonia.

(j) **Compliance monitoring.**

(1) Continuous compliance with the emission limits specified in this section for opacity, sulfur dioxide (SO_2), SO_2 reduction efficiency, nitrogen oxides (NO_x) and carbon monoxide shall be determined based on continuous emission monitoring system data. The owner or operator of a municipal waste combustor shall install, operate and calibrate such continuous emission monitoring system in a manner acceptable to the commissioner and certify to the commissioner, in writing, that the equipment specifications for the continuous emission monitoring system have been and are being met. In addition to the aforementioned continuous monitoring systems, the owner or operator of a municipal waste combustor shall also install, operate, calibrate and maintain continuous monitoring systems for measuring the final particulate control device inlet temperature, municipal waste combustor unit load and the oxygen or carbon dioxide content of the flue gas at each location where carbon dioxide, sulfur dioxide or nitrogen oxide emissions are monitored, and, if activated carbon is used to control dioxin/furan or mercury emissions, the carbon feed rate. CEM systems shall meet the following requirements:

(A) Opacity monitors shall meet the applicable performance and quality assurance requirements of 40 CFR 60, Appendix B, Performance Specification 1; section 22a-174-4a of the Regulations of Connecticut State Agencies; and 40 CFR 60.13;

(B) O_2 and CO_2 monitors shall meet the applicable performance and quality assurance requirements of 40 CFR 60, Appendix B, Performance Specification 3; 40 CFR 60, Appendix F, Procedure 1; and 40 CFR 60.13;

(C) SO_2 monitors shall:

(i) Meet the applicable performance and quality assurance requirements of 40 CFR 60,

Appendix B, Performance Specification 2; 40 CFR 60, Appendix F, Procedure 1; and 40 CFR 60.13, and

(ii) For units that have actual inlet emissions less than 100 ppmdv, the relative accuracy criterion for inlet sulfur dioxide CEM systems should be no greater than twenty percent (20%) of the mean value of the reference method test data in terms of the units of the emission standard, or five ppmdv absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater;

(D) NO_X monitors shall meet the applicable performance and quality assurance requirements of 40 CFR 60, Appendix B, Performance Specification 2; 40 CFR 60, Appendix F, Procedure 1; and 40 CFR 60.13;

(E) Carbon monoxide monitors shall:

(i) Meet the applicable performance and quality assurance requirements of 40 CFR 60, Appendix B, Performance Specification 4 or 4A (as applicable); 40 CFR 60, Appendix F, Procedure 1 and 40 CFR 60.13, and

(ii) For units subject to the 100 ppmdv carbon monoxide standard, the relative accuracy criterion of five ppmdv is calculated as the absolute value of the mean difference between the reference method and the CEM system;

(F) Continuous monitoring systems for MWC unit load shall meet the requirements of 40 CFR 60.1810(a); and

(G) If activated carbon is used to control dioxin/furan or mercury emissions:

(i) Monitoring of the carbon feed rate shall meet the requirements of 40 CFR 60.1820, and

(ii) Pneumatic injection pressure or another carbon injection system operational indicator shall be used to provide additional verification of proper carbon injection system operation. The operational indicator shall provide an instantaneous visual or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (e.g. continuous weight loss feeder) or monitoring of the carbon system operating parameter or parameters that are the indicator or indicators of the carbon mass feed rate (e.g. screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, shall be included in the site-specific Municipal Waste Combustor Operating & Maintenance Manual.

(2) A MWC owner or operator shall comply with the following minimum data requirements:

(A) Data available for gaseous and process CEMs shall not be less than ninety percent (90%) of the total operating hours in any one calendar quarter and not less than ninety-five percent (95%) of the total operating hours in any one calendar year;

(B) Data available for opacity CEMs shall not be less than ninety-five percent (95%) of the total operating hours in any one calendar quarter;

(C) Obtain valid 1-hour averages for seventy-five percent (75%) of the operating hours

per day for ninety percent (90%) of the operating days per calendar quarter during which the unit combusts any municipal solid waste;

(D) At least three equally spaced data points per hour shall be used to calculate a one-hour average;

(E) Notify the commissioner according to subsection (*l*)(3)(A)(v) of this section in the event of failure to obtain the minimum data required by subparagraphs (A) and (B) of this subdivision; and

(F) The percentage of data available shall be calculated as follows:

(i) In accordance with the procedures specified on forms furnished or prescribed by the commissioner, and

(ii) Using all data obtained from a CEM to calculate emissions concentrations and percent reductions as required by this section regardless of whether the minimum data availability requirements of subparagraphs (A) and (B) of this subdivision are obtained.

(3) During a loss of boiler water level control or a loss of combustion air control malfunction period, a diluent cap of fourteen percent for oxygen or five percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.

(4) The owner or operator of a municipal waste combustor unit at which a selective non-catalytic reduction system is installed and operated for control of NOx emissions may install, operate and calibrate, in a manner acceptable to the commissioner, a CEM system for measuring ammonia emissions and certify to the commissioner, in writing, that the equipment specifications for the CEM system have been met. Continuous compliance with the emission limit for ammonia shall be determined based on a 24-hour daily average. The owner or operator using a CEM system to measure ammonia emissions shall meet the following requirements:

(A) Ammonia CEM system performance specifications and quality assurance procedures are subject to review by the commissioner and shall not be implemented until approval from the commissioner has been received; and

(B) The owner or operator shall be required to monitor ammonia slip at each MWC unit, as follows:

(i) Data available for the ammonia CEM system shall not be less than ninety percent (90%) of the total operating hours in any one calendar quarter and not less than ninety-five percent (95%) of the total operating hours in any one calendar year,

(ii) Obtain valid 1-hour averages for seventy-five percent (75%) of the operating hours per day for ninety percent (90%) of the operating days per calendar quarter during which the unit combusts any municipal solid waste,

(iii) At least three equally spaced data points per hour shall be used to calculate a one hour average,

(iv) Notify the commissioner according to subsection (l)(3)(A)(v) of this section in the event of failure to obtain the minimum data required by subparagraphs (B)(i) and (B)(ii) of this subdivision, and

(v) The percentage of data available shall be calculated as follows:

(I) In accordance with the procedures specified on forms furnished or prescribed by the commissioner, and

(II) Using all data obtained from a CEM system to calculate emissions concentrations and percent reductions as required by this section regardless of whether the minimum data availability requirements of subparagraphs (B)(i) and (B)(ii) of this subdivision are obtained.

(k) **Record keeping requirements.**

(1) The owner or operator of a municipal waste combustor shall maintain records of the information specified in subdivisions (2) through (13) of this subsection, as applicable, labeling each record with the time and calendar date on which the data was generated. Each record shall be maintained for a period of at least five (5) years from the date the record was created.

(2) Operator training and certification records shall be maintained on an annual basis, as follows:

(A) The names of the chief operators and shift operators, certified by the commissioner, and employed at the plant, including the dates of initial and renewal certifications and documentation of current certification;

(B) The names of the chief operators and shift operators who have completed an operator training course as required under subsection (h)(3) of this section; and

(C) The names of the persons at the plant who have completed a training program as required under subsection (h)(5) of this section.

(3) Emission concentrations and parameters, measured using a CEM system, shall be recorded as specified in this subdivision:

(A) All six-minute arithmetic average opacity levels;

(B) All one-hour average sulfur dioxide emission concentrations;

(C) All one-hour average sulfur dioxide reduction efficiency levels;

(D) All one-hour average nitrogen oxides emission concentrations; and

(E) All one-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures.

(4) Average concentrations and percent reductions, as applicable, shall be maintained as specified in this subdivision:

(A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions;

(B) All 24-hour daily average nitrogen oxides emission concentrations;

(C) All 4-hour block or 24-hour daily average carbon monoxide emission concentrations, as applicable; and

(D) All 4-hour block average municipal waste combustor unit loads and particulate matter control device inlet temperatures.

(5) The calendar dates when any of the average emission concentrations, percent reductions, operating parameters or opacity levels recorded under subdivisions (3) or (4) of this subsection are above the applicable limit shall be identified. The reasons for such exceedances, a description of corrective actions taken and a description of the measures

taken to prevent future exceedances shall also be recorded.

(6) The calendar dates for which the minimum number of hours of any of the data required by this section have not been obtained shall be identified, the reasons for not obtaining sufficient data, a description of corrective actions taken and a description of the measures taken to prevent future losses of data.

(7) Where sulfur dioxide emissions data, nitrogen oxides emissions data or operational data (i.e., carbon monoxide emissions, municipal waste combustor unit load and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, the owner or operator shall identify such exclusion as well as the reason(s) for excluding the data.

(8) The results of daily calibrations and quarterly accuracy determinations for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide and oxygen or carbon dioxide continuous emission monitoring systems shall be recorded.

(9) The test reports and supporting calculations documenting the results of an initial performance test conducted to determine compliance with the emission limits specified in this section for particulate matter, opacity, cadmium, lead, mercury, dioxin/furan emissions, hydrogen chloride, fugitive ash and, as applicable, ammonia, shall be recorded. The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature shall be recorded for the initial performance test for dioxin/furan emissions for each particulate matter control device. The test results and supporting calculations documenting the relationship between carbon dioxide and oxygen concentrations established in accordance with this section shall be recorded if established during the initial performance test.

(10) The test reports and supporting calculations documenting the results of all annual performance tests conducted to determine compliance with the emission limits specified in this section for particulate matter, cadmium, lead, mercury, dioxin/furan emissions, hydrogen chloride, fugitive ash and, as applicable, ammonia, shall be recorded. The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device) shall be recorded for each performance test for dioxin/furan emissions. The relationship between carbon dioxide and oxygen concentrations shall be recorded if the relationship is reestablished during the annual performance test.

(11) For MWCs equipped with activated carbon injection systems for mercury or dioxin/furan emissions control, the records specified in this subdivision shall be maintained:

(A) Estimates of the average carbon mass feed rate, measured in kilograms per hour or pounds per hour, during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations;

(B) Estimates of the average carbon mass feed rate, measured in kilograms per hour or pounds per hour, during the initial dioxin/furan emissions performance test and all subsequent annual performance tests, with supporting calculations;

(C) Estimates of the average carbon mass feed rate, measured in kilograms per hour or

pounds per hour, for each hour of operation, with supporting calculations;

(D) For each calendar quarter, estimates of the total carbon usage for each MWC unit in kilograms or pounds for each calendar quarter by two independent methods, according to the procedures specified below:

(i) For each MWC unit, estimate the weight of carbon delivered, and

(ii) For each MWC unit, estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation based on the parameters specified under subsection (i)(4)(K) of this section, and sum the results for the total number of hours of operation during the calendar quarter;

(E) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed); and

(F) The times and calendar dates when average carbon mass feed rates were less than either of the hourly carbon feed rates estimated during mercury or dioxin/furan emissions tests. The reasons for such feed rates and a description of corrective actions taken shall also be recorded.

(12) For each MWC unit, the following records of air pollution control device operation shall be maintained:

(A) For each reagent, the feed rate to the air pollution control device, measured in kilograms per hour or pounds per hour, during the annual particulate emissions performance tests, with supporting calculations;

(B) For each reagent, the feed rate to the air pollution control device, measured in kilograms per hour or pounds per hour, for each hour of operation, with supporting calculations; and

(C) For each calendar quarter, total reagent usage for each MWC unit in kilograms or pounds for each calendar quarter.

(13) For each MWC unit, the following information shall be recorded daily:

(A) Daily fossil fuel usage rates for each fuel; and

(B) Daily hours of operation, in which periods of startup and shutdown are distinguished.

(*l*) **Reporting requirements.**

(1) Reserved.

(2) For each MWC unit, the MWC owner or operator shall submit a quarterly report to the commissioner within thirty (30) days following the end of each calendar quarter in which the data were collected. Each quarterly report shall include the following information:

(A) All data recorded pursuant to this section during the calendar quarter;

(B) Each calendar date during the calendar quarter reported when any of the average emission concentrations, percent reductions, operating parameters or opacity levels recorded exceeded the applicable limit identified in this section; the reasons the limit was exceeded and a description of the corrective actions taken;

(C) For MWCs equipped with activated carbon injection systems for mercury or dioxin/furan emissions control, the following information:

(i) Identification of the calendar dates during the calendar quarter reported when average

carbon mass feed rates were less than either of the hourly carbon feed rates estimated during mercury or dioxin/furan emissions tests, and the rates recorded. The reasons for such feed rates and a description of the corrective actions taken shall also be reported,

(ii) The total carbon purchased for and delivered to the MWC plant or purchased for and delivered to each MWC unit for the reported calendar quarter, and

(iii) The required usage of carbon for the reported calendar quarter for the MWC plant or for each MWC unit at the plant, calculated using equation 4 or 5 of 40 CFR 60.1935(f); and

(D) The data and results of any CEM quality assurance testing conducted pursuant to this section.

(3) The MWC owner or operator shall submit an annual report to the commissioner no later than January 30 of each year following the calendar year in which the data were collected. Each annual report shall include the following information:

(A) A summary of data collected for each pollutant regulated under this section and all applicable parameters, as follows:

(i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxin/furan, hydrogen chloride, fugitive ash and, as applicable, ammonia emission levels, achieved during all initial and annual performance tests,

(ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, particulate matter control device inlet temperature and, as applicable, ammonia based on the data recorded for 24-hour daily geometric averages, 24-hour daily averages, or 4-hour block averages, as applicable, for the aforementioned pollutants,

(iii) The highest six-minute average opacity level measured,

(iv) The relationship between carbon dioxide and oxygen, if such relationship is reestablished, including test results, identification of the units tested and the date and time of each test run, and, as necessary, a schedule for making the appropriate modifications to the CEM system to incorporate the equivalent % CO_2 correction factor,

(v) The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, particulate matter control device temperature and, as applicable, carbon mass feed rate and ammonia were not obtained, and

(vi) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, particulate matter control device temperature and, as applicable, carbon mass feed rate and ammonia were excluded from the calculation of average emission concentrations or parameters;

(B) The information required by subparagraphs (A)(i), (A)(ii) and (A)(iii) of this subdivision for the previous calendar year; and

(C) The data summaries required by subparagraphs (A) and (B) of this subdivision shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this section.

(4) At least ninety (90) days before any MWC owner or operator plans to conduct any performance test required under this subsection, such owner or operator shall submit a performance test plan for review and written approval of the commissioner. Such plan shall contain, at a minimum, the following information:

(A) sampling locations;

(B) test methods;

(C) sampling protocols;

(D) sample analysis procedures; and

(E) any other information required by the commissioner.

(5) The MWC owner or operator shall provide written notification to the commissioner three (3) business days prior to conducting any performance test required under this subsection.

(6) The MWC owner or operator shall provide written notification to the commissioner within seventy-two (72) hours of the time at which such owner or operator receives information regarding performance test results indicating that any particulate matter, opacity, cadmium, lead, mercury, dioxin/furan, hydrogen chloride, ammonia or fugitive ash emission levels exceed the applicable pollutant emission limits or standards defined in this section.

(7) Any report required to be submitted to the commissioner by this section shall include a certification signed in accordance with section 22a-174-2a(a)(4) of the Regulations of Connecticut State Agencies.

(8) The MWC owner or operator shall submit all reports and notifications required by this subsection on forms furnished or prescribed by the commissioner.

(9) The MWC owner or operator shall submit all reports specified under this subsection as a paper copy, with supporting data in either paper or electronic format, postmarked on or before the submittal dates specified in this subsection, and maintain such reports at the premises as a paper copy with any supporting data in the format submitted for a period of five (5) years from the date of submission to the commissioner.

(m) **Duty to comply.**

(1) The owner or operator of a MWC subject to this section who is unable to comply with the requirements of this section shall, at the discretion of the commissioner, enter into a legally enforceable cease operation agreement with the commissioner. The cease operation agreement shall specify a date, no later than one year from the date that the inability to comply is discovered, by which operations shall cease.

(2) Nothing in this section shall limit the commissioner's authority to impose further restrictions or requirements in a permit issued to the owner or operator of a MWC unit.

(Adopted effective June 28, 1999; Amended October 26, 2000; Amended February 2, 2004; Amended April 1, 2004; Amended July 7, 2008; Amended February 1, 2010; Amended August 2, 2016; Amended December 22, 2016; Amended October 28, 2022)

Sec. 22a-174-39. Reserved

Sec. 22a-174-40. Consumer Products

(a) **Definitions.** For purposes of this section, the definitions listed in this subsection shall apply:

(1) "Adhesive" means any product that is applied for the purpose of bonding two surfaces together excluding (A) mechanical means such as screws, clamps and Velcro, (B) products used on humans and animals, and (C) adhesive tape, contact paper, wallpaper, shelf liners or any other product with an adhesive incorporated onto or in an inert substrate.

(2) "Adhesive remover" means a product designed to remove adhesives from either a specific substrate or a variety of substrates. "Adhesive remover" does not include products that remove adhesives and are intended for use on humans or other animals. For the purpose of this definition, "adhesive" means a substance used to bond one or more materials including, but not limited to, caulks, sealants or glues.

(3) "Aerosol adhesive" means an aerosolized bonding product in which the spray mechanism is permanently housed in a non-refillable can designed for hand-held application without the need for ancillary hoses or spray equipment. "Aerosol adhesive" includes special purpose spray adhesive, mist spray adhesive and web spray adhesive.

(4) "Aerosol cooking spray" means any aerosol product designed either to reduce sticking on cooking and baking surfaces or to be applied on food or both.

(5) "Aerosol product" means a pressurized spray system that dispenses product ingredients by means of a propellant contained in a product or a product's container, or by means of a mechanically induced force. "Aerosol product" does not include pump spray.

(6) "Agricultural use" means the use of any pesticide or method or device for the control of pests in connection with the commercial production, storage or processing of any animal or plant crop, exclusive of the sale or use of pesticides in properly labeled packages or containers that are intended for:

(A) A household or its immediate environment;

(B) Structural pest control, which includes a use requiring a license under section 22a-54 of the Connecticut General Statutes;

(C) A manufacturing, mining or chemical process or in the operation of factories, processing plants and similar sites; or

(D) Within the lines of, or on property necessary for the operation of, buildings such as hospitals, schools, libraries, auditoriums and office complexes.

(7) "Air freshener" means any consumer product including, but not limited to, sprays, wicks, powders and crystals, designed for the purpose of masking odors, or freshening, cleaning, scenting or deodorizing the air including spray disinfectants, dual purpose air freshener or disinfectant products and other products that are expressly represented for use as "air freshener." "Air freshener" does not include products that are used on the human body, products that function primarily as cleaning products, disinfectant products claiming to deodorize by killing germs on surfaces, institutional and industrial disinfectants when offered for sale solely through institutional and industrial channels of distribution, odor

removers or eliminators or toilet or urinal care products.

(8) ”All other forms” means all consumer product forms for which no form-specific VOC standard is specified. Unless specified in a VOC standard, “all other forms” include, but are not limited to, solids, liquids, wicks, powders, crystals and cloth, paper wipes or towelettes.

(9) ”Alternative control plan” or “ACP” means an emissions averaging program approved by CARB or the NYSDEC.

(10) “Anti-microbial hand or body cleaner or soap” means a cleaner or soap designed to reduce the level of microorganisms on the skin through germicidal activity, including, but not limited to, anti-microbial hand or body washes and cleaners, food-handler hand washes, healthcare personnel hand washes, pre-operative skin preparations and surgical scrubs. “Anti-microbial hand or body cleaner or soap” does not include prescription drug products; antiperspirants; astringent or toner; deodorant; facial cleaner or soap; general-use hand or body cleaner or soap; hand dishwashing detergent including anti-microbial, heavy-duty hand cleaner or soap; medicated astringent or medicated toner; or rubbing alcohol.

(11) “Antiperspirant” means any product including, but not limited to, an aerosol, roll-on, stick, pump, pad, cream or squeeze-bottle that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.

(12) “Anti-static product” means a product that is labeled to eliminate, prevent or inhibit the accumulation of static electricity, exclusive of electronic cleaners, floor polish or wax, floor coating, aerosol coating products or architectural coating.

(13) “Architectural coating” means, notwithstanding the definition in section 22a-174-1 of the Regulations of Connecticut State Agencies, a coating applied to stationary structures and their appurtenances, to mobile homes, to pavements or to curbs.

(14) “Aromatic compound” means a carbon-containing compound that contains one or more benzene or equivalent heterocyclic rings and has an initial boiling point less than or equal to 280°C. “Aromatic compound” does not include compounds excluded from the definition of VOC listed in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(15) “Artist’s solvent or thinner” means any liquid product, labeled to meet ASTM D4236 – 94 (March 1, 2005) Standard Practice for Labeling Art Materials for Chronic Health Hazards, and packaged in a container equal to or less than 34 fluid ounces, labeled to reduce the viscosity of a coating used to create visual art or a component of such a coating or to remove a coating used to create visual art from a substrate.

(16) “ASTM” means the American Society for Testing and Materials.

(17) “Astringent” or “toner” means any product not regulated as a drug by the United States Food and Drug Administration that is applied to the skin for the purpose of cleaning or tightening pores, including clarifiers and substrate-impregnated products and excluding any hand, face or body cleaner or soap product, medicated astringent or medicated toner, cold cream, lotion or antiperspirant.

(18) ”Automotive brake cleaner” means, for products manufactured prior to May 1, 2018, a cleaning product designed to remove oil, grease, brake fluid, brake pad material or dirt from motor vehicle brake mechanisms.

(19) ”Automotive hard paste wax” means a motor vehicle wax or polish that is:

(A) Designed to protect and improve the appearance of motor vehicle painted surfaces;

(B) A solid at room temperature; and

(C) Contains 0% water by formulation.

(20) ”Automotive instant detailer” means a product designed for use in a pump spray that is applied to motor vehicle painted surfaces and wiped off prior to being allowed to dry.

(21) ”Automotive rubbing or polishing compound” means a product designed primarily to remove oxidation, old paint, scratches or swirl marks and other defects from motor vehicle painted surfaces without leaving a protective barrier.

(22) ”Automotive wax, polish, sealant or glaze” means a product designed to seal out moisture, increase gloss or otherwise enhance motor vehicle painted surfaces including, but not limited to, products designed for use in auto body repair shops and drive-through car washes, as well as products designed for the general public and excluding automotive rubbing or polishing compounds, automotive wash and wax products, surfactant-containing car wash products and products designed for use on unpainted surfaces such as bare metal, chrome, glass or plastic.

(23) ”Automotive windshield cleaner” means a product labeled and packaged as an automotive windshield cleaner for automotive use only that is in the form of a moistened towelette designed to be used on automotive windshields, automotive mirrors and automotive headlights. “Automotive windshield cleaner” does not include automotive windshield washer fluid.

(24) ”Automotive windshield washer fluid” means any liquid designed for use in a motor vehicle windshield washer system either as antifreeze or for the purpose of cleaning, washing or wetting the windshield, excluding fluids placed by the manufacturer in a new vehicle.

(25) ”Bait station insecticide” means an insecticidal bait weighing no more than 0.5 ounce and composed of solid material feeding stimulants with less than five percent active ingredients that is designed to be ingested by insects.

(26) ”Bathroom and tile cleaner” means a product designed to clean tile or surfaces in bathrooms, exclusive of products designed primarily to clean toilet bowls, toilet tanks or urinals.

(27) ”Brake cleaner” means, for products manufactured on and after May 1, 2018, a cleaning product designed to remove oil, grease, brake fluid, brake pad material or dirt from motor vehicle brake mechanisms.

(28) ”Bug and tar remover” means a product labeled to remove either or both of the following from painted motor vehicle surfaces without causing damage to the motor vehicle finish:

(A) Biological-type residues such as insect carcasses and tree sap; or

(B) Road grime, such as road tar, roadway paint markings and asphalt.

(29) "CARB" means the California Air Resources Board.

(30) "CCR" means the California Code of Regulations.

(31) "Carburetor or fuel-injection air intake cleaner" means a product designed to remove fuel deposits, dirt or other contaminants from a carburetor, choke, throttle body of a fuel-injection system or associated linkages, exclusive of a product designed to be introduced directly into the fuel lines or fuel storage tank prior to introduction into the carburetor or fuel injectors, or a product designed or labeled to be introduced during engine operation directly into air vacuum lines by using an application device that sprays product under pressure.

(32) "Carpet and upholstery cleaner" means a cleaning product designed for the purpose of eliminating dirt and stains on rugs, carpeting, and the interior of motor vehicles or on household furniture or objects upholstered or covered with fabrics such as wool, cotton, nylon or other synthetic fabrics including, but not limited to, products that make fabric protectant claims and excluding general purpose cleaners, spot removers, vinyl or leather cleaners, dry cleaning fluids or products designed exclusively for use at industrial facilities engaged in furniture or carpet manufacturing.

(33) "CAS" means Chemical Abstract Service.

(34) "Charcoal lighter material" means any combustible material designed to be applied on, incorporated in, added to or used with charcoal to enhance ignition, excluding electrical starters and probes, metallic cylinders using paper tinder, natural gas, propane or fat wood.

(35) "Colorant" means any pigment or coloring material used in a consumer product for an aesthetic effect, or to highlight a component.

(36) "Connecticut sales" means the annual sales in Connecticut during a specified calendar year of a consumer product, expressed as net pounds of product less packaging and container.

(37) "Construction, panel and floor covering adhesive" means any non-aerosol single-component adhesive that is not floor seam sealer and that is designed or labeled for the installation, remodeling, maintenance or repair of:

(A) Structural and building components that include, but are not limited to, beams, trusses, studs; paneling such as drywall or drywall laminates, fiberglass-reinforced plastic, plywood, particle board, insulation board, pre-decorated hardboard and tile board; ceiling and acoustical tile; molding; fixtures; countertops or countertop laminates; cove or wall bases; and flooring or subflooring; or

(B) Floor or wall coverings that include, but are not limited to, wood or simulated wood covering; carpet; carpet pad or cushion; vinyl-backed carpet; flexible flooring material; non-resilient flooring material; mirror tiles and other types of tiles; and artificial grass.

(38) "Consumer" means any person who purchases or acquires any consumer product for personal, family, household or institutional use. A person acquiring a consumer product for resale is not a "consumer" for that product.

(39) "Consumer product" means a chemically formulated product used by household and institutional consumers including, but not limited to, antiperspirants; detergents; deodorants; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn and garden products; disinfectants; sanitizers; aerosol paints; aerosol adhesives used for consumer, industrial or commercial uses; or automotive specialty products. Other paint products, furniture coatings or architectural coatings are not "consumer products."

(40) "Contact adhesive" means a non-aerosol adhesive that:

(A) Is designed for application to two surfaces to be bonded together;

(B) Is designed to dry before the two surfaces are placed in contact with each other;

(C) Forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other;

(D) Does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces;

(E) Is not a rubber cement primarily intended for use on paper substrates; and

(F) Is not a vulcanizing fluid designed and labeled for tire repair.

(41) "Contact adhesive - general purpose" means any contact adhesive that is not a "contact adhesive - special purpose."

(42) "Contact adhesive - special purpose" means a contact adhesive that is either:

(A) Used to bond melamine-covered board, unprimed metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber, high pressure laminate or wood veneer 1/16 inch or less in thickness to any porous or nonporous surface, and is sold in units of product, less packaging, that contain more than eight fluid ounces; or

(B) Used in automotive applications that are either automotive under-the-hood applications requiring heat, oil or gasoline resistance, or body-side molding, automotive weatherstrip or decorative trim.

(43) "Container" or "packaging" means the part or parts of a consumer or institutional product that serve only to contain, enclose, incorporate, deliver, dispense, wrap or store the chemically formulated substance or mixture of substances that accomplish the purpose or purposes for which the product is designed or intended, and includes any article onto or into which the principal display panel and other accompanying literature or graphics are incorporated, etched, printed or attached.

(44) "Crawling bug insecticide" means any insecticide product that is designed for use against ants, cockroaches or other household crawling arthropods including, but not limited to, mites, silverfish or spiders, and excluding any house dust mite product or any product designed to be used exclusively on humans or animals. For the purposes of this definition only:

(A) "House dust mite" means a Pyroglyphidaean mite that feeds primarily on skin cells shed in the home by humans and pets; and

(B) "House dust mite product" means a product whose label, packaging or accompanying literature states that the product is suitable for use against house dust mites but does not

indicate that the product is suitable for use against ants, cockroaches or other household crawling arthropods.

(45) ”Date-code” means the day, month and year on which a consumer product is manufactured, filled or packaged or a code indicating such a date.

(46) ”Deodorant” means any product including, but not limited to, an aerosol, roll-on, stick, pump, pad, cream or squeeze-bottle, that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that the product can be used on or applied to the human axilla to provide a scent or minimize odor.

(47) ”Device” means any instrument or contrivance, other than a firearm, designed for trapping, destroying, repelling or mitigating any pest or any other form of plant or animal life other than humans and bacteria, viruses or other microorganisms on or in living humans or other living animals; but “device” does not include equipment used to apply pesticides if such pesticides are sold separately from the device.

(48) ”Disinfectant” means any product intended to destroy or irreversibly inactivate infectious or other undesirable bacteria, pathogenic fungi or viruses on surfaces or inanimate objects and for which the label is registered under FIFRA, including any product that is labeled both as a sanitizer and disinfectant. “Disinfectant” does not include products:

(A) Designed solely for use on human or animals;

(B) Designed for agricultural use;

(C) Designed solely for use in swimming pools, therapeutic or hot tubs;

(D) Designed to be used on heat sensitive critical or semi-critical medical devices or medical equipment surfaces;

(E) That are pre-moistened wipes or towelettes sold exclusively to medical, convalescent, or veterinary establishments;

(F) Designed to be applied to food-contact surfaces and are not required to be rinsed prior to contact with food; or

(G) As indicated on the principal display panel or label, designed primarily for use as bathroom and tile cleaners, glass cleaners, general purpose cleaners, toilet or urinal care products, metal polishes, carpet cleaners, or fabric refreshers that may also make disinfecting or anti-microbial claims on the label.

For the purposes of this subdivision, “heat sensitive critical or semi-critical medical device” means a medical device that contacts or permeates mucous membranes or skin and that cannot be sterilized by thermal methods such as steam.

(49) ”Distributor” means any person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers and consumers are not “distributors.”

(50) “Double-phase aerosol air freshener” means an aerosol air freshener with the liquid contents in two or more distinct phases that requires the product container be shaken before use to mix the phases, producing an emulsion.

(51) ”Dry cleaning fluid” means any non-aqueous liquid product designed and labeled exclusively for use on fabrics that are labeled “dry clean only” or that are S-coded fabrics

and includes, but is not limited to, those products used by commercial dry cleaners and commercial businesses that clean fabrics such as draperies at a residence or work place. "Dry cleaning fluid" does not include spot remover or carpet and upholstery cleaner.

(52) "Dual purpose air freshener or disinfectant" means an aerosol product represented on the product container, or on any sticker, label, packaging, or literature attached to the product container, for use as both disinfectant and an air freshener.

(53) "Dusting aid" means a product designed for use with a mop, rag or other dusting device to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone based coating and does not include products, such as pressurized gas duster, that consist entirely of compressed gases for use in electronic or other specialty areas.

(54) "Electrical cleaner" means a product labeled to remove heavy soils such as grease, grime or oil from electrical equipment such as electric motors, armatures, relays, electric panels or generators. "Electrical cleaner" does not include general purpose cleaner, general purpose degreaser, dusting aid, electronic cleaner, energized electrical cleaner, pressurized gas duster, engine degreaser, anti-static product or products designed to clean the casings or housings of electrical equipment.

(55) "Electronic cleaner" means a product labeled for the removal of dirt, moisture, dust, flux or oxides from the internal components of electronic or precision equipment such as circuit boards, and the internal components of electronic devices such as radios, compact disc (CD) players, digital video disc (DVD) players and computers. "Electronic cleaner" does not include general purpose cleaner, general purpose degreaser, dusting aid, pressurized gas duster, engine degreaser, electrical cleaner, energized electrical cleaner, anti-static product or products designed to clean the casings or housings of electronic equipment.

(56) "Energized electrical cleaner" means a product that meets both of the following criteria: (A) the product is labeled to clean or degrease electrical equipment, where cleaning or degreasing is accomplished when electrical current exists, or when there is a residual electrical potential from a component, such as a capacitor; and (B) the product label clearly displays the statements: **"Energized equipment use only. Not to be used for motorized vehicle maintenance or their parts."** "Energized electrical cleaner" does not include electronic cleaner.

(57) "Engine degreaser" means a cleaning product designed to remove grease, grime, oil and other contaminants from the external surfaces of engines and other mechanical parts.

(58) "Fabric protectant" means:

(A) For products manufactured prior to May 1, 2018, a product designed to be applied to fabric substrates to protect the surface from soiling or to reduce absorption of liquid into the fabric's fibers. "Fabric protectant" does not include a product labeled for use as a waterproofer, a product designed for use solely on leather or a product designed for use solely on fabrics that are labeled "dry clean only" and sold in containers of ten fluid ounces or less; and

(B) For products manufactured on and after May 1, 2018, a product designed to be

applied to fabric substrates to protect the surface from soiling or to reduce absorption of liquid into the fabric's fibers. "Fabric protectant" does not include a waterproofing product labeled for use solely on leather, a pigmented product designed to be used primarily for coloring, a product used for construction, reconstruction, modification, structural maintenance or repair of a fabric substrate, or a product that renews or restores fabric and qualifies as either clear coating or vinyl, fabric, leather or polycarbonate coating.

(59) "Fabric refresher" means a product labeled to neutralize or eliminate odors on non-laundered fabric including, but not limited to, soft household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, footwear, athletic equipment, clothing or on household furniture or objects upholstered or covered with fabrics such as, but not limited to, wool, cotton or nylon. "Fabric refresher" does not include anti-static product, carpet and upholstery cleaner, footwear or leather care product, spot remover or disinfectant, sanitizer, or products labeled for application on both fabric and human skin.

(60) "Facial cleaner or soap" means a cleaner or soap designed primarily to clean the face and includes, but is not limited to, facial cleansing creams, semi-solids, liquids, lotions and substrate-impregnated forms; and excludes prescription drug products, antimicrobial hand or body cleaner or soap, astringent, toner, general-use hand or body cleaner or soap, medicated astringent, medicated toner or rubbing alcohol.

(61) "Fat wood" means pieces of wood kindling with high levels of sap or resin that enhance ignition of the kindling, and excludes any kindling with substances added to enhance flammability, such as wax-covered or wax-impregnated wood-based products.

(62) "FDA" means the United States Food and Drug Administration.

(63) "FIFRA" means the Federal Insecticide, Fungicide and Rodenticide Act, 7 USC sections 136 et. seq.

(64) "Flea and tick insecticide" means any insecticide product that is designed for use against fleas, ticks, their larvae or their eggs, exclusive of products designed for use exclusively on humans or animals and their bedding.

(65) "Flexible flooring material" means asphalt, cork, linoleum, no-wax, rubber, seamless vinyl or vinyl composite flooring.

(66) "Floor coating" means an opaque coating that is labeled and designed for application to flooring, including but not limited to, decks, porches, steps or other horizontal surfaces subject to foot traffic.

(67) "Floor or wall covering adhesive remover" means a product designed or labeled to remove floor or wall coverings and associated adhesive from the underlying substrate.

(68) "Floor polish or wax" means:

(A) For products manufactured prior to May 1, 2018, a wax, polish or any other product designed to polish, protect or enhance floor surfaces by leaving a protective coating that is designed to be periodically replenished, but does not include spray buff products, products designed solely for the purpose of cleaning floors, floor finish strippers, products designed for unfinished wood floors, or coatings subject to architectural coatings regulations; and

(B) For products manufactured on and after May 1, 2018, a product designed or labeled

to polish, wax, condition, protect, temporarily seal, or otherwise enhance floor surfaces by leaving a protective finish that is designed or labeled to be periodically replenished. "Floor polish or wax" does not include spray buff products, floor wax strippers, products designed or labeled for unfinished wood floors, or coatings subject to architectural coatings regulations.

(69) "Floor seam sealer" means any product designed and labeled exclusively for bonding, fusing, sealing or coating seams between adjoining pieces of installed flexible sheet flooring.

(70) "Floor wax stripper" means a product designed to remove natural or synthetic floor polishes or waxes through breakdown of the polish or wax polymers, or by dissolving or emulsifying the polish or wax, exclusive of aerosol floor wax strippers or products designed to remove floor wax solely through abrasion.

(71) "Flying bug insecticide" means any insecticide product that is designed for use against flying insects or other flying arthropods, including, but not limited to, flies, mosquitoes, moths or gnats, and excluding wasp and hornet insecticide, products that are designed to be used exclusively on humans or animals or any moth-proofing product. For the purposes of this definition only, "moth-proofing product" means a product whose label, packaging or accompanying literature indicates that the product is designed to protect fabrics from damage by moths but does not indicate that the product is suitable for use against flying insects or other flying arthropods.

(72) "Footwear or leather care product" means any product designed or labeled to be applied to footwear or to other leather articles or components, to maintain, enhance, clean, protect or modify the appearance, durability, fit or flexibility of the footwear or leather article or component. Footwear includes both leather and non-leather foot apparel. "Footwear or leather care product" does not include fabric protectant, general purpose adhesive, contact adhesive, vinyl, fabric, leather or polycarbonate coating, rubber or vinyl protectant, fabric refresher, products solely for deodorizing or sealant products with adhesive properties used to create external protective layers greater than two millimeters thick.

(73) "Fragrance" means a substance or complex mixture of aroma chemicals, natural essential oils and other functional components with a combined vapor pressure not in excess of 2mm Hg at 20ºC, the sole purpose of which is to impart an odor or scent or to counteract a malodor.

(74) "Furniture coating" means any paint designed for application to room furnishings including, but not limited to, kitchen, bath and vanity cabinets; tables; chairs; beds and sofas.

(75) "Furniture maintenance product" means a wax, polish, conditioner or any other product designed for the purpose of polishing, protecting or enhancing finished wood surfaces other than floors and other furniture surfaces including, but not limited to acrylic, ceramic, plastic, stone, metal and fiberglass. "Furniture maintenance product" does not include any dusting aid, wood cleaner, product designed exclusively for cleaning furniture or any product designed to leave a permanent finish such as stain, sanding sealer or lacquer.

(76) ”Gasket or thread locking adhesive remover” means a product designed or labeled to remove gaskets or thread locking adhesives. “Gasket or thread locking adhesive remover” includes products labeled for dual use as a paint stripper and gasket remover or thread locking adhesive remover.

(77) ”Gel” means a colloid in which the disperse phase has combined with the continuous phase to produce a semisolid material, such as jelly.

(78) ”General purpose adhesive” means any non-aerosol adhesive designed for use on a variety of substrates, excluding the following:

(A) Contact adhesives;

(B) Construction, panel and floor covering adhesives;

(C) Adhesives designed exclusively for application to one specific category of substrate, such as metals, paper products, ceramics, plastics, rubbers or vinyls; or

(D) Adhesives designed exclusively for use on one specific category of articles that may be composed of different materials but perform a specific function, such as gaskets, automotive trim, weather-stripping or carpets.

(79) ”General purpose adhesive remover” means a product designed or labeled to remove cyanoacrylate adhesives and non-reactive adhesives or residue from a variety of substrates, including but not limited to, products that remove thermoplastic adhesives; pressure sensitive adhesives; dextrine or starchbased adhesives; casein glues; rubber or latex-based adhesives; and products that remove stickers, decals, stencils, or similar materials. “General purpose adhesive remover” does not include floor or wall covering adhesive remover.

(80) ”General purpose cleaner” means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. “General purpose cleaner” includes, but is not limited to, products designed for general floor cleaning, kitchen, countertop, or sink cleaning; and cleaners designed to be used on a variety of hard surfaces such as stovetops, cooktops, small appliances or microwaves, and does not include general purpose degreasers and electronic cleaners. A product that is labeled as an “oven or grill cleaner” that makes claims that it is suitable for cleaning other hard surfaces is a “general purpose cleaner.”

(81) “General purpose degreaser” means any product labeled to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive or miscellaneous metallic parts. “General purpose degreaser” includes a product that is labeled as an oven or grill cleaner that makes claims that it is suitable for degreasing other hard surfaces.”General purpose degreaser” does not include engine degreaser, general purpose cleaner, adhesive remover, electronic cleaner, electrical cleaner, energized electrical cleaner, metal polish, metal cleanser, oven or grill cleaner, except as qualified in the previous sentence, or products used exclusively in solvent cleaning tanks or related equipment, or products that are:

(A) Sold exclusively to establishments that manufacture or construct goods or commodities; and

(B) Labeled exclusively for “use in the manufacturing process only”, or “**not for retail**

sale."

(82) "General-use hand or body cleaner or soap" means a cleaner or soap designed to be used routinely on the skin to clean or remove typical or common dirt and soils. "General-use hand or body cleaner or soap" includes, but is not limited to, hand or body wash, dual-purpose shampoo-body cleaner, shower or bath gel and moisturizing cleaner or soap; and excludes prescription drug product, anti-microbial hand or body cleaner or soap, astringent, toner, facial cleaner or soap, hand dishwashing detergent, anti-microbial hand washing detergent, heavy-duty hand cleaner or soap, medicated astringent, medicated toner or rubbing alcohol.

(83) "Glass cleaner" means a cleaning product designed primarily for cleaning surfaces made of glass and does not include products designed solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment or photocopying machines.

(84) "Graffiti remover" means a product labeled to remove spray paint, ink, marker, crayon, lipstick, nail polish or shoe polish from a variety of non-cloth or non-fabric substrates. "Graffiti remover" does not include paint remover or stripper, nail polish remover or spot remover. "Graffiti remover" includes products labeled for dual use as both a paint stripper and graffiti remover.

(85) "Hair mousse" means hairstyling foam designed to facilitate styling of a coiffure and provide holding power.

(86) "Hair shine" means any product designed for the primary purpose of creating a shine when applied to the hair, including, but not limited to, dual-use hair styling product, products designed primarily to impart a sheen to the hair, and excluding hair spray, hair mousse, hair styling gel or spray gel, or products whose primary purpose is to condition or hold the hair.

(87) "Hair spray" means a consumer product that is applied to styled hair and is designed or labeled to provide sufficient rigidity to hold, retain or finish the style of the hair for a period of time. "Hair spray" includes aerosol hair sprays, pump hair sprays, spray waxes; color, glitter or sparkle hairsprays that make finishing claims; and products that are both a styling and finishing product. "Hair spray" does not include spray products that are intended to aid in styling but do not provide finishing of a hairstyle. For the purposes of this definition, "finish" or "finishing" means the maintaining or holding of previously styled hair for a period of time. For the purposes of this definition, "styling" means the forming, sculpting or manipulation of the hair to alter temporarily the hair's shape.

(88) "Hair styling product" means a consumer product designed or labeled for the application to wet, damp or dry hair to aid in defining, shaping, lifting, styling or sculpting of the hair. "Hair styling product" includes, but is not limited to, hair balm, clay, cream, creme, curl straightener, gel, liquid, lotion, paste, pomade, putty, root lifter, serum, spray gel, stick, temporary hair straightener, wax, spray products that aid in styling but do not provide finishing of a hairstyle and leave-in volumizers, detanglers or conditioners that make styling claims. "Hair styling product" does not include hair mousse, hair shine, hair

spray or shampoos or conditioners that are rinsed from the hair prior to styling. For the purposes of this definition, "finish" or "finishing" means the maintaining or holding of previously styled hair for a period of time; and "styling" means the forming, sculpting or manipulation of the hair to alter temporarily the hair's shape.

(89) "Heavy-duty hand cleaner or soap" means a product designed to clean or remove difficult dirt and soils such as oil, grease, grime, tar, shellac, putty, printer's ink, paint, graphite, cement, carbon, asphalt or adhesives from the hand with or without the use of water. "Heavy-duty hand cleaner or soap" does not include prescription drug product, anti-microbial hand or body cleaner or soap, astringent, toner, facial cleaner or soap, general-use hand or body cleaner or soap, medicated astringent, medicated toner or rubbing alcohol.

(90) "Herbicide" means a pesticide product designed to kill or retard a plant's growth, but excludes a product labeled for agricultural use and restricted material requiring a permit for use and possession.

(91) "High temperature coating" means a high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204ºC (400ºF).

(92) "High volatility organic compound" or "HVOC" means any VOC that exerts a vapor pressure greater than 80mm Hg at 20°C.

(93) "Household product" means any consumer product designed for use inside or outside living quarters or residences, inclusive of the immediate surroundings, which are occupied or intended for occupation by individuals.

(94) "Industrial maintenance coating" means a high performance architectural coating, including primers, sealers, undercoaters, as defined in section 22a-174-41 of the Regulations of Connecticut State Agencies, intermediate coats, and topcoats formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions and labeled "for industrial use only," "for professional use only," "not for residential use," or "not intended for residential use":

(A) Immersion in water, wastewater, or chemical aqueous or non-aqueous solutions, or chronic exposure of interior surfaces to moisture condensation;

(B) Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

(C) Frequent exposure to temperatures above 121ºC (250ºF);

(D) Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, scouring agents; or

(E) Exterior exposure of metal structures and structural components.

(95) "Insecticide" means a pesticide product that is designed for use against insects or other arthropods, but excluding products that are:

(A) For agricultural use;

(B) For a use which requires a structural pest control certification pursuant to section 22a-54 of the Connecticut General Statutes; or

(C) Restricted materials that require a permit for use and possession.

(96) "Insecticide fogger" means any insecticide product designed to release all or most of its content, in the form of a fog or mist, into indoor areas during a single application.

(97) "Institutional product" or "industrial and institutional product" means a consumer product that is designed for use in the maintenance or operation of an establishment, exclusive of a household product or a product that is incorporated into or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment. For the purpose of this definition, an "establishment" includes, but is not limited to, a government agency, factory, school, hospital, sanitarium, prison, restaurant, hotel, store, automobile service and parts center, health club, theater or transportation company, that:

(A) Manufactures, transports, or sells goods or commodities or provides services for profit; or

(B) Is engaged in the nonprofit promotion of a particular public, educational or charitable cause.

(98) "Label" means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product or consumer product package, for purposes of branding, identifying or giving information with respect to the product or to the contents of the package.

(99) "Laundry prewash" means a product that is designed for application to a fabric prior to laundering and that supplements and contributes to the effectiveness of laundry detergents or provides specialized performance.

(100) "Laundry starch, sizing or fabric finish product" or "laundry starch product" means a product that is designed for application to a fabric, either during or after laundering, to impart and prolong a crisp look that may also act to help ease ironing of the fabric, including, but not limited to, fabric finish, sizing and starch.

(101) "Lawn and garden insecticide" means an insecticide product labeled primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods.

(102) "Liquid" means a substance or mixture of substances that is capable of a visually detectable flow as determined under ASTM D-4359-90(2000)e1, including subsequent amendments, excluding powders or other materials composed entirely of solid particles.

(103) "Lubricant" means a product designed to reduce friction, heat, noise or wear between moving parts, or to loosen rusted or immovable parts or mechanisms and excludes the following products:

(A) Automotive power steering fluids;

(B) Products for use inside power generating motors, engines, and turbines and associated power-transfer gearboxes;

(C) Two cycle oils or other products designed to be added to fuels;

(D) Products for use on the human body or animals; or

(E) Products that are both:

(i) Sold exclusively to establishments that manufacture or construct goods or

commodities, and

(ii) Labeled exclusively for "use in the manufacturing process only" or **"not for retail sale."**

(104) "LVP-VOC" means a low vapor pressure chemical compound or mixture that contains at least one carbon atom and meets at least one of the following criteria:

(A) Has a vapor pressure less than 0.1 mm Hg at 20°C;

(B) Is a chemical compound with more than 12 carbon atoms or a chemical mixture comprised solely of compounds with more than 12 carbon atoms, and the vapor pressure and boiling point are unknown;

(C) Is a chemical compound with a boiling point greater than 216°C; or

(D) Is the weight percent of a chemical mixture that boils above 216°C.

For the purposes of this definition, "chemical compound" means a molecule of definite chemical formula and isomeric structure, and "chemical mixture" means a substrate comprised of two or more chemical compounds.

(105) "Manufacturer" means any person who imports, manufactures, assembles, produces, packages, repackages or re-labels a consumer product.

(106) "Medicated astringent" or "medicated toner" means any product regulated as a drug by the FDA that is applied to the skin for the purpose of cleaning or tightening pores, and includes, but is not limited to, clarifiers and substrate-impregnated products. "Medicated astringent" or "medicated toner" does not include any hand, face, or body cleaner or soap product, personal fragrance product, astringent or toner, cold cream, lotion, antiperspirant or product that may only be purchased with a doctor's prescription. For the purposes of this subdivision, "personal fragrance product" means any product which is applied to the human body or clothing for the primary purpose of adding a scent or masking a malodor, including cologne, perfume, aftershave, and toilet water. "Personal fragrance product" does not include: (A) Deodorant; (B) medicated products designed primarily to alleviate fungal or bacterial growth on feet or other areas of the body; (C) mouthwashes, breath fresheners and deodorizers; (D) lotions, moisturizers, powders or other skin care products used primarily to alleviate skin conditions such as dryness and irritations; (E) products designed exclusively for use on human genitalia; (F) soaps, shampoos, and products primarily used to clean the human body; or (G) fragrance products designed to be used exclusively on non-human animals.

(107) "Medium volatility organic compound" or "MVOC" means any volatile organic compound that exerts a vapor pressure greater than 2mm Hg and less than or equal to 80mm Hg when measured at 20°C.

(108) "Metal polish or cleanser" means any product designed to use physical or chemical action to remove or reduce stains, impurities or oxidation from surfaces or to make surfaces smooth and shiny on finished metal, metallic or metallized surfaces. "Metal polish or cleanser" includes, but is not limited to, metal polishes used on brass, silver, chrome, copper, stainless steel and other ornamental metals and does not include: automotive wax, polish, sealant or glaze; wheel cleaner; paint remover or stripper; products designed and labeled

exclusively for automotive and marine detailing; or products designed for use in degreasing tanks.

(109) ”Mist spray adhesive” means any aerosol adhesive that is not a special purpose spray adhesive and that delivers a particle or mist spray, resulting in the formation of fine, discrete particles that yield a generally uniform and smooth application of adhesive to the substrate.

(110) ”Multi-purpose dry lubricant” means any lubricant that is:

(A) Designed and labeled to provide lubricity by depositing a thin film of graphite, molybdenum disulfide (“moly”), or polytetrafluoroethylene or closely related fluoropolymer (“Teflon”) on surfaces; and

(B) Designed for general purpose lubrication, or for use in a wide variety of applications.

(111) ”Multi-purpose lubricant” means any lubricant designed for general purpose lubrication or for use in a wide variety of applications, exclusive of any multi-purpose dry lubricant, penetrant or silicone-based multi-purpose lubricant.

(112) ”Multi-purpose solvent” means:

(A) For products manufactured prior to May 1, 2018, any organic liquid designed to be used for a variety of purposes, including cleaning or degreasing of a variety of substrates, or thinning, dispersing or dissolving other organic materials, including solvents used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories. “Multi-purpose solvent” does not include any solvent used in a cold cleaner, vapor degreaser, conveyorized degreaser or film cleaning machine, or solvent that is incorporated into, or used exclusively in the manufacture or construction of, the goods or commodities at the site of the establishment; and

(B) For products manufactured on and after May 1, 2018, any liquid product designed or labeled for use in dispersing, dissolving, or removing contaminants or other organic materials. “Multi-purpose solvent” also includes:

(i) a product that does not display specific use instructions on the product container or packaging,

(ii) a product that does not specify an end-use function or application on the product container or packaging,

(iii) a solvent used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories,

(iv) a paint clean-up product, or

(v) a product labeled to prepare surfaces for painting.

For the purpose of this subdivision only, “paint clean-up” means any liquid product labeled for cleaning oil-based or water-based paint, lacquer, varnish, or related coatings from painting equipment or tools, plastics, metals or other substrates.

“Multi-purpose solvent” does not include a solvent used in a cold cleaner, a vapor degreaser, a conveyorized degreaser or film cleaning machine; a solvent labeled exclusively for the clean-up of application equipment used for polyaspartic and polyurea coatings; a solvent that is incorporated into, or used exclusively in the manufacture or construction of,

the goods or commodities at the site of the establishment; a product that is labeled exclusively to clean a specific contaminant, on a single substrate, in specific situations; or any product making any representation that the product may be used as, or is suitable for use as any other consumer product listed in Table 40-3 of this section.

For the purposes of this subdivision, "application equipment used for polyaspartic and polyurea coatings" means a device such as a squeegee, roller, brush, broom or spray system, used to apply a protective layer of aliphatic polyurea to a metal or concrete surface.

(113) "Nail polish" means any clear or colored coating designed for application to the fingernails or toenails and including, but not limited to, lacquers, enamels, acrylics, base coats and top coats.

(114) "Nail polish remover" means a product designed to remove nail polish and coatings from fingernails or toenails.

(115) "Non-aerosol product" means any consumer product that is not dispensed by a pressurized spray system.

(116) "Non-carbon containing compound" means any compound that does not contain carbon atoms.

(117) "Non-resilient flooring" means flooring of a mineral content that is not flexible, including terrazzo, marble, slate, granite, brick, stone, ceramic tile and concrete.

(118) "Non-selective terrestrial herbicide" means a herbicide product that is intended for use on land and is toxic to plants without regard to species.

(119) "NYCRR" means the Official Compilation of Codes, Rules and Regulations of the State of New York.

(120) "NYSDEC" means the New York State Department of Environmental Conservation.

(121) "Oven cleaner" means any cleaning product designed to clean by removing dried food and other deposits from oven interiors.

(122) "Oven or grill cleaner" means a product labeled exclusively to remove baked-on greases or deposits from food preparation or food cooking surfaces. "Oven or grill cleaner" does not include a product that is labeled as an "oven or grill cleaner" that makes claims that it is suitable for degreasing other hard surfaces or for cleaning other hard surfaces.

(123) "Paint" means any pigmented liquid, liquefiable or mastic composition designed for application to a substrate in a thin layer, which is converted to an opaque solid film after application and is used for protection, decoration or identification, or to serve some functional purpose such as the filling or concealing of surface irregularities or the modification of light and heat radiation characteristics.

(124) "Paint remover or stripper" means any product designed to strip or remove paints or other related coatings, by chemical action, from a substrate without markedly affecting the substrate. "Paint remover or stripper" does not include:

(A) Multi-purpose solvents;

(B) Paint brush cleaners;

(C) Products designed and labeled exclusively to remove graffiti; or

(D) Hand cleaner products that claim to remove paints and other related coating from skin.

(125) "Paint thinner" means, for products manufactured on and after May 1, 2018, any liquid product used for reducing the viscosity of coating compositions or components, that prominently displays the term "paint thinner," "lacquer thinner," "thinner," or "reducer" on the front panel of its packaging. "Paint thinner" does not include any of the following products:

(A) Artist's solvent or thinner;

(B) A product that is sold in containers with a capacity of five gallons or more and labeled exclusively for the thinning of industrial maintenance coatings, zinc-rich primers, or high temperature coatings;

(C) A product labeled and used exclusively as an ingredient in a specific coating or coating brand line, whereby the coating would not be complete or useable without the specific ingredient; or

(D) A product that meets both of the following criteria:

(i) The principle display panel of the product indicates, in a font size as large as or larger than the font size of all other words on the panel, not including the font size used for the company name, brand name, or logo, that the product is used exclusively for the thinning of industrial maintenance coatings, zinc-rich primers, or high temperature coatings, and

(ii) No representation is made anywhere on the product container or packaging, or any label or sticker attached thereto, that the product is suitable for use or may be used for any other purpose except the thinning of industrial maintenance coatings, zinc-rich primers, or high temperature coatings.

For the purposes of this definition, "zinc-rich primer" means a coating that contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids, is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings, and is intended for professional use only and labeled "For Professional Use Only," "For Industrial Use Only," "Not for residential use," or "Not intended for residential use."

(126) "Penetrant" means a lubricant designed and labeled primarily to loosen metal parts that have bonded together due to rusting, oxidation or other causes. "Penetrant" does not include multi-purpose lubricants that claim to have penetrating qualities, but are not labeled primarily to loosen bonded parts.

(127) "Pesticide" means any substance or mixture of substances labeled, designed or intended for use in preventing, destroying, repelling or mitigating any pest; or any substance or mixture of substances labeled, designed or intended for use as a defoliant, desiccant or plant regulator; and excluding any substance, mixture of substances or device that the United States Environmental Protection Agency does not consider a pesticide.

(128) "Plasticizer" means a material that is incorporated into a plastic to increase its flexibility, workability, or distensibility. "Plasticizer" content of a product may be determined using ASTM Method E260-91 or 96, including any subsequent amendments or

from product formulation data.

(129) ”Pressurized gas duster” means a pressurized product labeled to remove dust from a surface solely by means of mass air or gas flow, including surfaces such as photographs, photographic film negatives, computer keyboards and other types of surfaces that cannot be cleaned with solvents. “Pressurized gas duster” does not include dusting aids.

(130) ”Principal display panel” means that part, or those parts, of a product label appearing once or more on a container or packaging that is designed for display to, examination by or presentation to a potential consumer under normal and customary conditions of display or purchase.

(131) ”Product brand name” means the name of the product exactly as it appears on the principal display panel of the product.

(132) ”Product form”, for the purpose of complying with subsection (h) of this section only, means the applicable form that most accurately describes a products’ dispensing form, including aerosols (A), solids (S), semi-solids (SS), liquids (L),pump sprays (P), or other (O).

(133) ”Propellant” means a liquefied or compressed gas that is used in whole or in part, such as a co-solvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.

(134) ”Pump spray” means a packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.

(135) “Resilient flooring” means flexible flooring of a material that may include, but is not limited to, asphalt, cork, linoleum, no-wax, rubber, seemless vinyl, or vinyl composite.

(136) ”Responsible party” means the company, firm or establishment that is listed on a product’s label. If the label lists more than one company, firm or establishment, the responsible party is the party that the product was “manufactured for” or “distributed by,” as noted on the label.

(137) ”Restricted material” means pesticides classified for “restricted use” pursuant to FIFRA.

(138) “Retailer” means any person who sells, supplies or offers consumer products for sale directly to consumers.

(139) “Retail outlet” means any establishment at which consumer products are sold, supplied or offered for sale directly to consumers.

(140) “Roll-on product” means any antiperspirant or deodorant dispensed by rolling a wetted ball or wetted cylinder on the affected area.

(141) “Rubber or vinyl protectant” means:

(A) For products manufactured prior to May 1, 2018, any product designed to protect, preserve or renew vinyl, rubber and plastic on motor vehicles, tires, luggage, furniture or household products such as vinyl covers, clothing and accessories. “Rubber or vinyl protectant” does not include a product primarily designed to clean a motor vehicle wheel rim, such as aluminum or magnesium wheel cleaner, or a tire cleaner that does not leave an

appearance-enhancing or protective substance on the tire; and

(B) For products manufactured on and after May 1, 2018, any product labeled to protect, preserve or renew vinyl, or rubber on motor vehicles, tires, luggage, furniture or household products such as vinyl covers, clothing, or accessories. "Rubber or vinyl protectant" does not include a product labeled to clean the wheel rim, such as aluminum or magnesium wheel cleaner, or a tire cleaner that does not leave an appearance-enhancing or protective substance on the tire, a pigmented product designed or labeled to be used primarily for coloring, a product used for construction, reconstruction, modification, structural maintenance or repair of rubber or vinyl substrates, or a product, other than a product labeled to be used on vehicle tires, qualifying as either clear coating or vinyl, fabric, leather or polycarbonate coating. For the purposes of this subdivision, "clear coating" means an aerosol product that is colorless or transparent, containing resins but no pigments except ingredients added to reduce the gloss of the coating without adding color to the coating, and is designed and labeled to form a transparent or translucent solid coating.

(142) "Rubbing alcohol" means any product containing isopropyl alcohol or denatured ethanol and labeled for topical use, usually to decrease germs in minor cuts and scrapes, to relieve minor muscle aches, as a rubefacient or for massage.

(143) "Sanitizer" means, for products manufactured on and after May 1, 2018, a product that is labeled as a "sanitizer", or labeled to reduce, but not necessary eliminate, microorganisms in the air, on surfaces, or on inanimate objects, and whose label is registered as a "sanitizer" under FIFRA. Products that are labeled both as a "sanitizer" and a disinfectant are considered disinfectants. "Sanitizer" does not include:

(A) Disinfectant;

(B) A product labeled solely for use on humans or animals;

(C) A product labeled solely for agricultural use;

(D) A product labeled solely for use in swimming pools, therapeutic tubs, or hot tubs;

(E) A product labeled for use on heat sensitive critical or semi-critical medical devices or medical equipment surfaces;

(F) A product that is a pre-moistened wipe or towelette sold exclusively to medical, convalescent or veterinary establishments;

(G) A product that is labeled to be applied to food-contact surfaces and is not required to be rinsed prior to contact with food; or

(H) A product that is labeled as a bathroom and tile cleaner, glass cleaner, general purpose cleaner, toilet or urinal care product, metal polisher, carpet cleaner, or fabric refresher that may also make sanitizing or anti-microbial claims on the label.

For the purposes of this subdivision, "heat sensitive critical or semi-critical medical device" means a medical device that contacts or permeates mucous membranes or skin and that cannot be sterilized by thermal methods such as steam.

(144) "S-coded fabric" means an upholstery fabric designed to be cleaned only with water-free spot cleaning products as specified by the Joint Industry Fabric Standards and Guidelines Committee.

(145) "Sealant and caulking compound" means any product with adhesive properties that is designed to fill, seal, waterproof or weatherproof gaps or joints between two surfaces, and excluding the following products:

(A) Roof cements and roof sealants;

(B) Insulating foams;

(C) Removable caulking compounds, which, for the purposes of this subdivision, means a compound that temporarily seals windows or doors for three to six month time intervals;

(D) Clear, paintable or water resistant caulking compound, which, for the purposes of this subdivision, means a compound that contains no appreciable level of opaque fillers or pigments; transmits most or all visible light through the caulk when cured; is paintable; and is immediately resistant to precipitation upon application;

(E) Floor seam sealers;

(F) Products designed exclusively for automotive uses;

(G) Sealers that are applied as continuous coatings; or

(H) Products sold in units that weigh more than one pound and consist of more than sixteen fluid ounces.

(146) "Semisolid" means a product that, at room temperature, will not pour but will spread or deform easily, such as gels, pastes and greases.

(147) "Shaving cream" means an aerosol product that dispenses foam lather intended for use with a blade or cartridge razor, or other wet-shaving system, in the removal of facial or other bodily hair. "Shaving cream" does not include shaving gel.

(148) "Shaving gel" means an aerosol product that dispenses a post-foaming semi-solid designed to be used with a blade, cartridge razor or other wet-shaving system in the removal of facial or other body hair. "Shaving gel" does not include shaving cream.

(149) "Silicone-based multi-purpose lubricant" means any lubricant that is not a product designed and labeled exclusively to release manufactured products from molds and that is designed and labeled as follows:

(A) To provide lubricity primarily through the use of silicone compounds including, but not limited to, polydimethylsiloxane; and

(B) For general purpose lubrication, or for use in a wide variety of applications.

(150) "Single-phase aerosol air freshener" means an aerosol air freshener with the liquid contents in a single homogeneous phase that does not require that the product container be shaken before use.

(151) "Solid" means a substance or mixture of substances that, either whole or subdivided as in the case of particles comprising a powder, is not capable of visually detectable flow as determined under ASTM D-4359-90 (2000)e1, including any subsequent amendments.

(152) "Solvent cleaning tanks or related equipment" means, but is not limited to, cold cleaners, vapor degreasers, conveyorized degreasers, film cleaning machines or products designed to clean miscellaneous metallic parts by immersion in a container.

(153) "Special purpose spray adhesive" means any of the aerosol adhesives identified

in subparagraphs (A) through (G) of this subdivision:

(A) Mounting adhesive, an aerosol adhesive designed to mount photographs, artwork and any other drawn or printed media permanently to a backing without causing discoloration to the artwork;

(B) Automotive engine compartment adhesive, an aerosol adhesive designed for use in motor vehicle under-the-hood applications that require oil and plasticizer resistance as well as high shear strength at temperatures of 200ºF to 275º F;

(C) Flexible vinyl adhesive, an aerosol adhesive designed to bond a nonrigid polyvinyl chloride plastic with at least five percent, by weight, of plasticizer content to substrates;

(D) Polystyrene foam adhesive, an aerosol adhesive designed to bond polystyrene foam to substrates;

(E) Automotive headliner adhesive, an aerosol adhesive designed to bond together layers in motor vehicle headliners;

(F) Polyolefin adhesive, an aerosol adhesive designed to bond polyolefins to substrates; and

(G) Laminate repair or edgebanding adhesive, an aerosol adhesive designed for:

(i) Touch-up or repair of items laminated with sheet materials consisting of a core material that has been laminated at temperatures exceeding 265 ºF, and at pressures between 1,000 and 1,400 psi, or

(ii) Touch-up, repair or attachment of edgebanding materials, including but not limited to, other laminates, synthetic marble, veneers, wood molding and decorative metals.

(154) "Specialty adhesive remover" means a product designed to remove reactive adhesives from a variety of substrates. For the purposes of this definition, "reactive adhesive" includes adhesive that requires a hardener or catalyst for the bond to be formed, epoxy, urethane and silicone. "Specialty adhesive remover" does not include gasket or thread locking adhesive remover.

(155) "Spot remover" means any product labeled to clean localized areas, or remove localized spots or stains on cloth or fabric that does not require subsequent laundering to achieve stain removal. "Spot remover" does not include dry cleaning fluid, laundry pre-wash or multi-purpose solvent.

(156) "Spray buff product" means a product designed to restore a worn floor finish in conjunction with a floor buffing machine and special pad.

(157) Reserved.

(158) "Structural waterproof adhesive" means an adhesive with bond lines that are resistant to conditions of continuous immersion in fresh or salt water and that conforms with Federal Specification MMM-A-181D (Type 1, Grade A).

(159) "Temporary hair color" means, for products manufactured on and after May 1, 2018, any product that applies color, glitter, or UV-active pigments to hair, wigs, or fur and is removable when washed. "Temporary hair color" includes hair color mousses and products labeled to add texture or thickness to cover thinning or balding areas, and excludes hair spray, hair styling product, or hair mousse.

(160) ”Tire sealant and inflator” means any pressurized product that is designed to inflate and seal a leaking tire for a short period of time.

(161) ” Toilet or urinal care product” means any product designed or labeled to clean or deodorize a toilet bowl, toilet tank or urinal. For the purpose of this definition, “toilet bowl, toilet tank or urinal” includes, but is not limited to, any toilet or urinal connected to permanent plumbing in buildings and other structures, any portable toilet or urinal placed at temporary or remote locations and any toilet or urinal in vehicles such as buses, recreational motor homes, boats, ships and aircraft. Bathroom and tile cleaner and general purpose cleaner are not considered “toilet or urinal care product.”

(162) “Undercoating” means any aerosol product including, but not limited to, a rubberized, mastic or asphaltic product designed to impart a protective, non-paint layer to the undercarriage, trunk interior or the firewall of motor vehicles to prevent the formation of rust or to deaden sound.

(163) “ Vinyl, fabric, leather or polycarbonate coating” means a coating designed and labeled exclusively to coat vinyl, fabric, leather or polycarbonate substrates.

(164) “VOC content” means, except for charcoal lighter material products, the total weight of volatile organic components in a product expressed as a percentage of the product weight exclusive of the container or packaging.

(165) “Wasp and hornet insecticide” means any insecticide product that is designed for use against wasps, hornets, yellow jackets or bees and that allows the user to spray from a distance a directed stream or burst at the intended insects or their hiding place.

(166) “Waterproofer” means a product that is not a fabric protectant and that is designed and labeled exclusively to repel water from fabric or leather substrates.

(167) “Wax” means a material or synthetic thermoplastic substance generally composed of high molecular weight hydrocarbons or high molecular weight esters of fatty acids or alcohols, except glycerol, high polymers or plastics, including, but not limited to, substances derived from the secretions of plants and animals such as carnuba wax and beeswax, substances of a mineral origin such as ozocerite and paraffin and synthetic polymers such as polyethylene.

(168) “Web spray adhesive” means any aerosol adhesive that is not a mist spray or special purpose spray adhesive.

(169) “Wood cleaner” means a product labeled to clean wooden materials including but not limited to decking, fences, flooring, logs, cabinetry and furniture. “Wood cleaner” does not include any dusting aid, general purpose cleaner, furniture maintenance product, floor wax stripper, floor polish or wax or products designed and labeled exclusively to preserve or color wood.

(170) “Wood floor wax” means a wax-based product for use solely on wood floors.

(b) **Applicability.**

Except as provided in subsection (c) of this section, this section applies to any person who sells, supplies, offers for sale, distributes for sale or manufactures for sale in the state of Connecticut any consumer product manufactured before the applicable date identified

in Table 40-1 or on or after the applicable date identified in Table 40-3 for use in the state of Connecticut.

(c) **Exemptions.**

(1) This section shall not apply to any consumer product manufactured in Connecticut for shipment, sale and use outside of Connecticut.

(2) This section shall not apply to a manufacturer or distributor who sells, supplies or offers for sale in Connecticut a consumer product that does not comply with the VOC content limits specified in Table 40-1 or Table 40-3 of this section provided that such manufacturer or distributor makes and keeps records demonstrating:

(A) The consumer product is intended for shipment and use outside of Connecticut; and

(B) The manufacturer or distributor has taken reasonable precautions to assure that the consumer product is not distributed to or within Connecticut.

(3) Subdivision (2) of this subsection shall not apply to a consumer product that is sold, supplied or offered for sale by any person to a retail outlet in Connecticut.

(4) This section shall not apply to any product for which the manufacturer obtains one of the following variances, provided that any manufacturer who claims exemption pursuant to this subdivision shall possess and submit to the commissioner, upon request therefor, a copy of the applicable underlying variance decision:

(A) A variance issued by the NYSDEC pursuant to 6 NYCRR 235-8.1 and approved by the Administrator, for the period of time such variance is in effect; or

(B) A variance issued by CARB pursuant to 17 CCR 94514 and approved by the Administrator, for the period of time such variance is in effect.

(5) This section shall not apply to any product for which the manufacturer is granted one of the following exemptions, provided the consumer product sold in Connecticut meets all product conditions attached to the grant of the exemption:

(A) An exemption by CARB pursuant to the Innovative Products provisions of 17 CCR 94511 or 17 CCR 94503.5 and approved by the Administrator for the period of time the CARB Innovative Products exemption remains in effect; or

(B) An exemption by the NYSDEC pursuant to the Innovative Products provisions of 6 NYCRR 235-5.1 and approved by the Administrator for the period of time the NYSDEC Innovative Products exemption remains in effect.

(6) Any manufacturer who claims an exemption pursuant to subdivision (5) of this subsection shall submit to the commissioner, upon request therefor, a copy of the applicable CARB or NYSDEC exemption decision.

(7) This section shall not apply to any manufacturer for any product that is subject to one of the ACP agreements identified below, provided that the manufacturer complies with all conditions applicable to the underlying ACP agreement:

(A) Exempt by NYSDEC pursuant to the ACP requirements of 6 NYCRR 235-11.1 and approved by the Administrator for the period of time the underlying ACP agreement remains in effect. Any manufacturer who claims exemption pursuant to this subparagraph shall submit to the commissioner and the Administrator, upon request therefor, a copy of the

applicable ACP agreement; or

(B) Exempt by CARB pursuant to the ACP requirements of 17 CCR 94511 and approved by the Administrator for the period of time the underlying ACP agreement remains in effect. Any manufacturer who claims exemption pursuant to this subparagraph shall submit to the commissioner and the Administrator, upon request therefor, a copy of the applicable ACP agreement.

(8) The VOC content limits specified for antiperspirants or deodorants in Table 40-1 or Table 40-3 of this section shall not apply to the following:

(A) Colorants up to a combined level of two percent by weight contained in any antiperspirant or deodorant,

(B) Those VOCs that contain more than ten carbon atoms per molecule and for which the vapor pressure is unknown, or that have a vapor pressure of 2 mm Hg or less at 20°C, and

(C) The MVOC content limits shall not apply to ethanol.

(9) The VOC content limits specified in Table 40-1 or Table 40-3 of this section shall not apply to fragrances up to a combined level of two percent by weight contained in any consumer product.

(10) The VOC content limits specified in Table 40-1 or Table 40-3 of this section shall not apply to any LVP-VOC.

(11) For consumer products registered under FIFRA, the requirements of subsection (e) of this section shall not apply.

(12) The VOC content limits specified in Table 40-1 or Table 40-3 of this section shall not apply to air fresheners that are comprised entirely of fragrance, less compounds not defined as VOCs or exempted under subdivision (10) of this subsection.

(13) The VOC content limits specified in Table 40-1 or Table 40-3 of this section shall not apply to air fresheners and insecticides containing at least 98 percent paradichlorobenzene.

(14) The VOC content limits specified in Table 40-1 or Table 40-3 of this section shall not apply to adhesives sold in containers of one fluid ounce or less.

(15) The VOC content limits specified in Table 40-1 or Table 40-3 of this section shall not apply to bait station insecticides.

(16) (A) The requirements of this section shall not apply to:

(i) Contact adhesives sold in units of product, less packaging, of more than one gallon; or

(ii) Construction, panel and floor covering adhesives and general purpose adhesives sold in units of product, less packaging, of more than one pound or sixteen (16) fluid ounces.

(A) The exemptions provided in subparagraph (A) of this subdivision shall not apply to aerosol adhesives.

(17) The requirements of this section shall not apply to a consumer product that is distributed or transferred by a branch of the United States military to, from or within a premises operated by that branch of the United States military.

(d) **Standards.**

(1) Except as provided in subsection (c) of this section:

(A) No person shall sell, supply or offer for sale in the state of Connecticut any consumer product manufactured prior to May 1, 2018, unless such consumer product complies with the applicable VOC content limits specified in Table 40-1 of this section and the requirements of this subsection; and

(B) No person shall sell, supply or offer for sale in the state of Connecticut any consumer product manufactured on and after May 1, 2018 or, on and after May 1, 2018, manufacture for sale in the state of Connecticut any consumer product, unless such consumer product complies with the applicable VOC content limits specified in Table 40-3 of this section and the requirements of this subsection.

(2) For consumer products that are diluted prior to use, the VOC content limits in Table 40-1 or Table 40-3 shall apply as follows:

(A) If the label, packaging or accompanying literature specify that the product should be diluted with water or non-VOC solvent prior to use, the VOC content limits specified in Table 40-1 or Table 40-3 shall apply to the product only after the minimum recommended dilution has taken place;

(B) If the label, packaging or accompanying literature specify that the product should be diluted with any VOC solvent prior to use, the VOC content limits specified in Table 40-1 or Table 40-3 shall apply to the product only after the maximum recommended dilution has taken place; and

(C) For the purposes of this subdivision, "minimum recommended dilution" shall not include recommendations for incidental use of a concentrated product for limited special applications such as hard-to-remove soils or stains.

(3) No person shall sell, supply or offer for sale in Connecticut any charcoal lighter material product unless at the time of the transaction, such person possesses documentation showing that such product has been issued a currently effective certification by the CARB pursuant to 17 CCR 94509(h).

(4) No person shall sell, supply, offer for sale or manufacture for use in Connecticut prior to May 1, 2018 any aerosol adhesive that exceeds the VOC content limits in Table 40-1 or, on and after May 1, 2018 any aerosol adhesive that exceeds the VOC content limits in Table 40-3, of this section for consumer, industrial and commercial uses or that contains methylene chloride, perchloroethylene or trichloroethylene. If an aerosol adhesive:

(A) Is sold as a special purpose spray adhesive, the product label shall indicate that the adhesive is suitable only for substrates and applications identified in the definition of special purpose spray adhesive in subsection (a) of this section. If the product label indicates that the adhesive is suitable for use on any substrate or application that is not identified in definition of special purpose spray adhesive in subsection (a) of this section, then the product shall be classified as either a web spray adhesive or a mist spray adhesive; and

(B) Meets more than one of the classifications for a special purpose spray adhesive as defined in subsection (a) of this section, and the product is not classified as a web spray

adhesive or a mist spray adhesive pursuant to subparagraph (A) of this subdivision, then the VOC content limit for the product shall be the lowest applicable VOC content limit specified in Table 40-1 or Table 40-3, as applicable.

(5) No person shall:

(A) Sell, supply or offer for sale in the state of Connecticut any contact adhesive, electronic cleaner, footwear or leather care product, general purpose degreaser, adhesive remover, electrical cleaner or graffiti remover manufactured on or after January 1, 2009, if such product contains methylene chloride, perchloroethylene or trichloroethylene, except to the extent such compounds are present as impurities in a combined amount less than or equal to 0.01% by weight; or

(B) Manufacture for sale in the state of Connecticut any contact adhesive, electronic cleaner, footwear or leather care product, general purpose degreaser, adhesive remover, electrical cleaner or graffiti remover, if such product contains methylene chloride, perchloroethylene or trichloroethylene, except to the extent such compounds are present as impurities in a combined amount less than or equal to 0.01% by weight.

(6) No person shall:

(A) Sell, supply or offer for sale in the state of Connecticut any bathroom and tile cleaner, construction panel and floor covering adhesive, electronic cleaner labeled as "energized electronic equipment use only," general purpose cleaner or oven or grill cleaner, manufactured on or after May 1, 2018, if such product contains methylene chloride, perchloroethylene or trichloroethylene, except to the extent such compounds are present as impurities in a combined amount less than or equal to 0.01% by weight; or

(B) On and after May 1, 2018, manufacture for sale in the state of Connecticut any bathroom and tile cleaner, construction, panel, and floor covering adhesive, electronic cleaner labeled as "energized electronic equipment use only," general purpose cleaner or oven or grill cleaner, if such product contains methylene chloride, perchloroethylene or trichloroethylene, except to the extent such compounds are present as impurities in a combined amount less than or equal to 0.01% by weight.

(7) No person shall sell, supply, offer for sale or manufacture for use in Connecticut any consumer product for which a standard is specified in subdivision (1) of this subsection if such consumer product contains any of the ozone depleting compounds listed in Table 40-2 of this section, except as follows:

(A) A product formulation that complies with the applicable VOC content limits in Table 40-1 or Table 40-3 of this section as of the effective date of this section or a product formulation that is reformulated after the effective date of this section to meet the applicable VOC content limits in Table 40-1 or Table 40-3, provided the ozone depleting compound content of the reformulated product does not increase; or

(B) A consumer product in which ozone depleting compounds are present as impurities in an amount equal to or less than 0.01% by weight of the product.

(8) No person shall sell, supply, offer for sale or manufacture for sale in Connecticut any antiperspirant or deodorant that contains any compound that has been identified by CARB

in 17 CCR 93000 as a toxic air contaminant.

(9) No person shall sell, supply, offer for sale or manufacture for use in Connecticut any solid air freshener or toilet or urinal care product that contains para-dichloro-benzene.

(10) If a representation is made on the display panel of any consumer product, except a general purpose cleaner, an antiperspirant or a deodorant product, that the product may be used as, or, is suitable for use as, a consumer product for which a lower VOC standard is specified in Table 40-1 or Table 40-3 of this section, as applicable, then the lowest VOC standard shall apply.

(11) To determine whether a product is an air freshener, all verbal and visual representations regarding product use on the label or packaging and in the product's literature and advertising may be considered. The presence of, and representations about, a product's fragrance and ability to deodorize resulting from surface application shall not constitute a claim of air freshening.

(12) Notwithstanding the provisions of subdivision (1) of this subsection, a consumer product manufactured prior to May 1, 2018 may be sold, supplied or offered for sale if the consumer product complies with any applicable VOC content limit required by this section and in effect at the time the product is manufactured. The exception offered in this subdivision shall only apply to a product that displays a date or a date code as required by subsection (e)(1) of this section.

(13) For those consumer products that are registered under the FIFRA, the effective date of the VOC standards listed in Table 40-3 is May 1, 2019.

(14) Except as provided in this subdivision, effective May 1, 2018, no person shall sell, supply, offer for sale, or manufacture for use in Connecticut any multi-purpose solvent or paint thinner that contains methylene chloride, perchloroethylene, or trichloroethylene, or greater than 1% aromatic compound content by weight, except:

(A) Multi-purpose solvent aerosols and paint thinner aerosols that contain methylene chloride, perchloroethylene, or trichloroethylene, or greater than 1% aromatic compound content by weight and that were manufactured prior to May 1, 2018 may be sold, supplied, or offered for sale through April 30, 2021, if that product complies with the product dating requirements set forth in subsection (e)(1) of this section;

(B) Any person who sells or supplies a consumer product identified in subparagraph (A) of this section shall notify the purchaser of the product in writing that the sell-through period for that product will end on April 30, 2021, however, this notification shall be given only if both of the following conditions are met:

(i) The product is sold or supplied only to a distributor or retailer; and

(ii) The product is sold or supplied on or after October 31, 2020; and

(C) The requirements of subparagraph (B) of this subdivision shall not apply to any multi-purpose solvent or paint thinner that contains any methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01 percent by weight.

(15) After May 1, 2018, no person shall sell, supply, offer for sale, or manufacture for

use in Connecticut any "flammable" or "extremely flammable" multi-purpose solvent or paint thinner named, on the principle display panel as paint thinner, multi-purpose solvent, clean-up solvent, or paint clean-up;

(A) This subdivision shall not apply to a product that meets either of the following criteria:

(i) A product that includes an attached hang tag, sticker, or contrasting square or rectangular area on the principle display panel that displays, at a minimum, the following statements in a font size as large as, or larger than, a "signal word" (i.e., "DANGER," "WARNING," or "CAUTION") not including the font size used for the company name, brand name, or logo, as specified in 16 CFR 1500.121: "Formulated to meet California VOC limits; see warnings on label," or

(ii) A product where the principle display panel displays, in a font size as large as, or larger than, the font size of all other words on the panel not including the font size used for the company name, brand name, or logo, the common name of the chemical compound (e.g., "acetone," "methyl acetate," etc.) that results in the product meeting the criteria for "flammable" or "extremely flammable;" and

(B) For the purposes of this subdivision, a product is "flammable" or "extremely flammable" if it is labeled as "flammable" or "extremely flammable" on the product container, or if the product meets the criteria for these terms specified 16 CFR 1500.3(c)(6).

(16) For any consumer product, including any FIFRA-registered insecticide, the lowest VOC content limit applies. Notwithstanding the product category as identified in Table 40-1 or 40-3 of this section, if anywhere on the container or packaging, or on any sticker or label affixed thereto, any representation is made that the product may be used as, or is suitable for use as a consumer product for which a lower VOC limit is specified in the applicable Table 40-1 or Table 40-3, then the lowest VOC limit shall apply. This lowest VOC limit requirement does not apply to general purpose cleaners, antiperspirant or deodorant products, or insecticide foggers.

(e) **Container labeling.**

(1) Each manufacturer of a consumer product subject to subsection (d) of this section shall clearly display on each consumer product container or package, the date on which the product was manufactured or a code indicating such date. The date or date-code information shall be readily observable on the container without disassembling the container or packaging.

(2) No person shall erase, alter, deface or otherwise remove or make illegible any date or date-code from any regulated product container prior to final sale of the product without the express authorization of the manufacturer. The requirements of this subdivision shall not apply to products containing no VOCs or containing VOCs at 0.10% by weight or less.

(3) If a manufacturer uses a code indicating the date of manufacture for any consumer product subject to subsection (d) of this section, an explanation of the code shall be available to the commissioner upon request. Such explanations are public information and may not be claimed as confidential.

(4) Reserved.

(5) The product container for any aerosol adhesive product subject to this section shall display the following information:

(A) The aerosol adhesive category as specified in Table 40-1 or Table 40-3 or an abbreviation of the category;

(B) The applicable VOC standard for the product that is specified in Table 40-1 or Table 40-3, expressed as a percent by weight; and

(C) If the product is classified as a special purpose spray adhesive, the applicable substrate, the application or an abbreviation of the substrate or application that qualifies the product as special purpose.

(6) No person shall sell, supply, offer for sale or manufacture for sale in Connecticut any non-aerosol floor wax stripper subject to this section unless the following requirements are met:

(A) The label shall specify a dilution ratio for light or medium build-up of polish that results in an as-used VOC concentration of three percent (3%) by weight or less, but the terms "light build-up" and "medium build-up" may or may not appear on the label; and

(B) If intended for removal of heavy build-up of polish, the label shall specify a dilution ratio for heavy build-up of polish that results in an as-used VOC concentration of twelve percent (12%) by weight or less, but the term "heavy build-up" may or may not appear on the label.

(7) The product container for any adhesive remover, electronic cleaner, electrical cleaner, energized electrical cleaner or contact adhesive product subject to this section shall display the following information:

(A) The product category as specified in Table 40-1 or Table 40-3, or an abbreviation of the category; and

(B) With the exception of an energized electrical cleaner, the applicable VOC standard for the product that is specified in Table 40-1 or Table 40-3, expressed as a percent by weight.

(f) **Compliance procedures and testing.**

(1) Any person who sells, supplies, offers for sale or manufactures a consumer product for sale in Connecticut shall possess documentation that such consumer product was tested to determine compliance with the applicable VOC content limits in Table 40- 1 or Table 40-3, of this section prior to being offered for sale in Connecticut.

(2) Testing as required by subdivision (1) of this subsection shall use one of the following test methods:

(A) CARB Method 310, Determination of Volatile Organic Compound (VOC) in Consumer Products, as adopted by CARB on September 25, 1997, and as in effect on the effective date of this section;

(B) Product formulation and records pursuant to subdivision (3) of this subsection;

(C) An alternative method approved by the NYSDEC pursuant to 6 NYCRR 235-9.1 as in effect on the effective date of this section and approved by the Administrator; or

(D) An alternative method approved by the commissioner and approved by the Administrator that accurately determines the concentration of VOCs in a consumer product or its emissions.

(3) VOC content calculated from product formulation and records shall use the following equation:

VOC Content = (B-C)/A x 100

Where:

A = total weight of unit (excluding container and packaging).

B = total weight of all VOCs per unit.

C = total weight of VOCs exempted by this section, per unit.

(4) If a compliance determination made using product records pursuant to subdivision (2)(B) of this subsection appears to demonstrate compliance with the VOC content limits, but such determination is contradicted by product testing performed pursuant to subdivision (2)(A) of this subsection, the results of the demonstration made pursuant to subdivision (2)(A) shall take precedence over the demonstration made pursuant to subdivision (2)(B) and may be used to establish a violation of the requirements of this section.

(5) If any consumer product testing in accordance with this subsection requires determination of whether a product is a liquid or a solid, the determination shall be made using ASTM D4359-90, May 25, 1990.

(6) Any flexible vinyl adhesive determination of plasticizer shall be made using ASTM E260-91 or 96 "Standard Practice for Packed Column Gas Chromotography," including any subsequent amendments.

(7) Testing to determine compliance with the certification requirements for charcoal lighter material shall be performed using the procedures specified in the South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol.

(8) Testing to determine distillation points of petroleum distillate-based charcoal lighter materials shall be performed using ASTM D 86-90, September 28, 1990.

(9) The following methods shall be used, as necessary, to determine if a chemical compound or mixture satisfies one of the criteria as a "LVP-VOC" as defined in subsection (a) of this section:

(A) CARB Method 310, as adopted by CARB on September 25, 1997 and as in effect on the effective date of this section, shall be used to determine the vapor pressure or boiling point; and

(B) The number of carbon atoms shall be verifiable by formulation data.

(g) **Record keeping.**

(1) Any person who sells, supplies, offers for sale or manufactures for sale in Connecticut any consumer product shall maintain records of the information necessary for the commissioner to determine compliance with the requirements of this section.

(2) A manufacturer of a product subject to this section shall maintain accurate records for each day of production of the amount and chemical composition of the individual product constituents so that the commissioner may make a compliance determination

concerning such product.

(3) All records made to demonstrate compliance with the requirements of this section shall be:

(A) Made available to the commissioner and the Administrator to inspect and copy upon request; and

(B) Maintained for five (5) years from the date such record is created.

(4) No person shall create, alter, falsify or otherwise modify records in such a way that the records do not accurately reflect the constituents used to manufacture a product, the chemical composition of a product or any other test, processes or records created in connection with product manufacture.

(h) **Reporting.**

(1) Upon 30 days written notice, the commissioner may require any responsible party to report information for any consumer product. If the responsible party does not have or does not provide the information requested by the commissioner, the commissioner may require the reporting of this information by the person that has the information, including but not limited to, any formulator, manufacturer, supplier, parent company, retailer who sells under a private label, distributor or repackager. The required consumer product report shall include, but not be limited to, the following information:

(A) The name, address, telephone number and designated contact person of the responsible party;

(B) Any claim of confidentiality;

(C) The product brand name and label;

(D) The category to which the consumer product belongs;

(E) The applicable product form or forms listed separately;

(F) An identification of each product brand name and form as a household product, industrial and institutional product, or both;

(G) For each product form and for the previous three years, Connecticut sales in pounds per year, to the nearest pound, and the method used to calculate sales for each product form;

(H) For registrations submitted by two or more companies, an identification of each company that is submitting relevant data separate from that submitted by the responsible party;

(I) For each product brand name and form, the net percent by weight of the total product, less container and packaging, comprised of the following, rounded to the nearest one-tenth of a percent (0.1%):

(i) Total exempt compounds,

(ii) Total LVP-VOCs that are not fragrances,

(iii) Total of all other compounds that contain at least one carbon atom, that are not exempt compounds or LVP-VOCs and that are not fragrances,

(iv) Total of all non-carbon containing compounds,

(v) Total fragrance,

(vi) For products containing greater than two percent (2%) by weight fragrance, the

percent of fragrance that is LVP-VOCs and the percent of fragrance that is all other compounds that contain at least one carbon atom and are not exempt compounds or LVP-VOCs, and

(vii) Total paradichlorobenzene;

(J) The name, CAS number and percent weight of each VOC constituent in the product;

(K) The name and CAS number of any exempt compounds in the product, including each compound that contains at least one carbon atom and each LVP-VOC that is not a fragrance;

(L) If applicable, the weight percent comprised of propellant for each product and the type of propellant; and

(M) The net percent by weight of each ozone-depleting compound that is:

(i) Listed in Table 40-2, and

(ii) Contained in a product subject to this section in any amount greater than one-tenth percent (0.1%) by weight.

(2) For consumer products that are subject to subsection (d)(1) of this section and contain perchloroethylene or methylene chloride, the commissioner may require, upon 90 days written notice, the responsible party to report the following information for products sold in Connecticut during a specific time period:

(A) The product brand name and a copy of the product label with legible usage instructions;

(B) The product category to which the consumer product belongs;

(C) The applicable product form or forms, separately listed;

(D) For each product form listed under subparagraph (C) of this subdivision, the total sales in Connecticut during the reported year, to the nearest pound, exclusive of the container or packaging, and the method used for calculating the Connecticut sales; and

(E) The weight percent, to the nearest one-tenth percent (0.10 percent), of perchloroethylene or methylene chloride.

(3) For the purposes of subdivision (2) of this subsection, a product contains perchloroethylene or methylene chloride if the product contains one percent (1.0%) or more by weight, exclusive of the container or packaging, of either perchloroethylene or methylene chloride.

(4) Any document submitted to the commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall inquire of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the

submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(5) Any document required to be submitted to the commissioner pursuant to this subsection shall be submitted as a paper copy, with supporting data in either paper or electronic format, and the submitter shall maintain such a report at the premises as a paper copy with any supporting data in the format submitted for a period of five (5) years from the date of submission to the commissioner.

(6) To determine Connecticut sales pursuant to this section, if direct sales data for Connecticut are not available, sales may be estimated by prorating national or regional sales data by population.

Table 40-1. VOC Content Limits for Listed Product Categories, Manufactured Prior to May 1, 2018

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Adhesive	
Aerosol – Mist Spray	65
Aerosol – Web Spray	55
Contact – General Purpose	55
Contact – Special Purpose	80
Special Purpose Spray Adhesive: Mounting, Automotive Engine Compartment, and Flexible Vinyl	70
Special Purpose Spray Adhesive: Polystyrene Foam and Automotive Headliner	65
Special Purpose Spray Adhesive: Polyolefin; and Laminate Repair or Edgebanding	60
Construction, Panel and Floor Covering	15
General Purpose	10
Structural Waterproof	15
Adhesive Remover	
Floor or Wall Covering	5
Gasket or Thread Locking	50

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
General Purpose	20
Specialty	70
Aerosol Cooking Spray	**18**
Air Freshener	
Single-Phase Aerosol	30
Double-Phase Aerosol	25
Liquids or Pump Spray	18
Solid and Semi-Solid	3
Antiperspirant	
Aerosol	40 HVOC
	10 MVOC
Non-Aerosol	0 HVOC
	0 MVOC
Anti-Static Product – Non-Aerosol	**11**
Automotive Brake Cleaner	**45**
Automotive Rubbing or Polishing Compound	**17**
Automotive Wax, Polish, Sealant or Glaze	
Hard Paste Wax	45
Instant Detailer	3
Automotive Windshield Washer Fluid	**35**
Bathroom and Tile Cleaner	
Aerosol	7
All Other Forms	5
Bug and Tar Remover	**40**
Carburetor or Fuel-Injection Air Intake Cleaner	**45**
Carpet and Upholstery Cleaner	
Aerosol	7

PRODUCT CATEGORY	**VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)**
Non-Aerosol (Dilutables)	0.1
Non-Aerosol (Ready-to-Use)	3
Charcoal Lighter Material	**See subsection (d)(3) of this section**
Deodorant	
Aerosol	0 HVOC
	10 MVOC
Non-Aerosol	0 HVOC
	0 MVOC
Dusting Aid	
Aerosol	25
All Other Forms	7
Electrical Cleaner	**45**
Electronic Cleaner	**75**
Engine Degreaser	
Aerosol	35
Non-Aerosol	5
Fabric Protectant	**60**
Fabric Refresher	
Aerosol	15
Non-Aerosol	6
Floor Polish or Wax	
For Flexible Flooring Material	7
For Nonresilient Flooring	10
Wood Floor Wax	90
Floor Wax Stripper (Non-Aerosol)	**See subsection (e)(6) of this section**
Footwear or Leather Care	
Aerosol	75
Solid	55
All Other Forms	15

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Furniture Maintenance Product	
Aerosol	17
All Other Forms Except Solid and Paste	7
General Purpose Cleaner	
Aerosol	10
Non-Aerosol	4
General Purpose Degreaser	
Aerosol	50
Non-Aerosol	4
Glass Cleaner	
Aerosol	12
Non-Aerosol	4
Graffiti Remover	
Aerosol	50
Non-Aerosol	30
Hair Mousse	**6**
Hairshine	**55**
Hairspray	**55**
Hair Styling Product	
Aerosol and Pump Spray	6
All Other Forms	2
Heavy-Duty Hand Cleaner or Soap	**8**
Insecticide	
Crawling Bug (aerosol)	15
Crawling Bug (all other forms)	20
Flea and Tick	25
Flying Bug (aerosol)	25
Flying Bug (all other forms)	35
Fogger	45

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Lawn and Garden (non-aerosol)	3
Lawn and Garden (all other forms)	20
Wasp and Hornet	40
Laundry Prewash	
Aerosol or Solid	22
All Other Forms	5
Laundry Starch Product	**5**
Metal Polish or Cleanser	**30**
Multi-Purpose Lubricant (Excluding Solid or Semi-Solid Product)	**50**
Nail Polish Remover	**75**
Non-Selective Terrestrial Herbicide Non-Aerosol	**3**
Oven Cleaner	
Aerosol or Pump Spray	8
Liquid	5
Paint Remover or Stripper	**50**
Penetrant	**50**
Rubber or Vinyl Protectant	
Non-Aerosol	3
Aerosol	10
Sealant and Caulking Compound	**4**
Shaving Cream	**5**
Shaving Gel	**7**
Silicone-Based Multi-Purpose Lubricant (Excluding Solid or Semi-Solid Products)	**60**
Spot Remover	
Aerosol	25
Non-Aerosol	8
Tire Sealant and Inflator	**20**

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Toilet or Urinal Care Product	
Aerosol	10
Non-Aerosol	3
Undercoating-Aerosol	**40**
Wood Cleaner	
Aerosol	17
Non-Aerosol	4

Table 40-2. Prohibited Ozone-Depleting Compounds.

CFC-11 (trichloroflouromethane)	CFC-12 (dichlorodiflouromethane)
CFC-113 (1,1,1-trichloro-2,2,2-trifluoroethane)	CFC-114 (1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane)
CFC-115 (chloropentafluoroethane)	halon 1211 (bromochlorodifluoromethane)
halon 1301 (bromotrifluoromethane)	halon 2402 (dibromotetraflouroethane)
HCFC-22 (chlorodifluoromethane)	
HCFC-123 (2,2-dichloro-1,1,1-trifluoroethane)	HCFC-124 (2-chloro-1,1,1,2- tetrafluoroethane)
HCFC-141b (1,1-dichloro-1-fluoroethane)	HCFC-142b (1-chloro-1,1-difluoroethane)
1,1,1-trichloroethane	carbon tetrachloride

Table 40-3. VOC Content Limits for Listed Product Categories, manufactured on or after May 1, 2018

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Adhesive	
Aerosol – mist spray	65
Aerosol – web spray	55
Contact – general purpose	55
Contact – special purpose	80

PRODUCT CATEGORY	**VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)**
Special purpose spray adhesive: mounting, auto-motive engine compartment, and flexible vinyl	70
Special purpose spray adhesive: polystyrene foam and automotive headliner	65
Special purpose spray adhesive: polyolefin, and laminate repair or edgebanding	60
Construction, panel and floor covering	7
General purpose	10
Structural waterproof	15
Adhesive remover	
Floor or wall covering	5
Gasket or thread locking	50
General purpose	20
Specialty	70
Aerosol cooking spray	**18**
Air freshener	
Single-phase aerosol	30
Double-phase aerosol	25
Dual purpose air freshener or disinfectant aerosol	60
Liquid or pump spray	18
Solid and semi-solid	3
Antiperspirant	
Aerosol	40 HVOC
	10 MVOC
Non-aerosol	0 HVOC
	0 MVOC
Anti-static product	**11**
Aerosol	80

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Non-aerosol	11
Automotive rubbing or polishing compound	**17**
Automotive wax, polish, sealant or glaze	
Hard paste wax	45
Instant detailer	3
All other forms	15
Automotive windshield cleaner	**35**
Automotive windshield washer fluid	**35**
Bathroom and tile cleaner	
Aerosol	7
Non-aerosol	1
Brake cleaner	**10**
Bug and tar remover	**40**
Carburetor or fuel-injection air intake cleaner	**10**
Carpet and upholstery cleaner	
Aerosol	7
Non-aerosol (dilutables)	0.1
Non-aerosol (ready-to-use)	3
Charcoal lighter material	**See subsection (d)(3) of this section**
Deodorant	
Aerosol	0 HVOC
	10 MVOC
Non-aerosol	0 HVOC
	0 MVOC
Disinfectant	
Aerosol	70
Non-aerosol	1
Dusting aid	

PRODUCT CATEGORY	**VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)**
Aerosol	25
All other forms	7
Electrical cleaner	**45**
Electronic cleaner	**75**
Engine degreaser	
Aerosol	10
Non-aerosol	5
Fabric protectant	**60**
Fabric refresher	
Aerosol	15
Non-aerosol	6
Floor polish or wax	
For flexible flooring material	1
For nonresilient flooring	1
Wood floor wax	90
Floor wax stripper (non-aerosol)	**See subsection (e)(6) of this section**
Footwear or leather care	
Aerosol	75
Solid	55
All other forms	15
Furniture maintenance product	
Aerosol	17
All other forms except solid and paste	3
General purpose cleaner	
Aerosol	8
Non-aerosol	4
General purpose degreaser	
Aerosol	10
Non-aerosol	4

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Glass cleaner	
Aerosol	12
Non-aerosol	4
Graffiti remover	
Aerosol	50
Non-aerosol	30
Hair mousse	**6**
Hairshine	**55**
Hairspray	**55**
Hair styling product	
Aerosol and pump spray	6
All other forms	2
Heavy-duty hand cleaner	**8**
Insecticide	
Crawling bug (aerosol)	15
Crawling bug (all other forms)	20
Flea and tick	25
Flying bug (aerosol)	25
Flying bug (all other forms)	35
Fogger	45
Lawn and garden (non-aerosol)	3
Lawn and garden (all other forms)	20
Wasp and hornet	40
Laundry prewash	
Aerosol or solid	22
All other forms	5
Laundry starch, sizing or fabric finish product	**4.5**
Metal polish or cleanser	**30**

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Multi-purpose lubricant (excluding solid or semi-solid product)	**50**
Multi-purpose solvent	**3**
Nail polish remover	**1**
Non-selective terrestrial herbicide non-aerosol	**3**
Oven or grill cleaner	
Aerosol	8
Non-aerosol	4
Paint remover or stripper	**50**
Paint thinner	**3**
Penetrant	**50**
Rubber or vinyl protectant	
Non-aerosol	3
Aerosol	10
Sanitizer	
Aerosol	70
Non-aerosol	1
Sealant and caulking compound	**4**
Shaving cream	**5**
Shaving gel	**4**
Silicone-based multi-purpose lubricant (excluding solid or semi-solid product)	**60**
Spot remover	
Aerosol	25
Non-aerosol	8
Temporary hair color	
Aerosol	55
Tire sealant and inflator	**20**
Toilet or urinal care product	

PRODUCT CATEGORY	VOC CONTENT LIMIT (PERCENT VOLATILE ORGANIC COMPOUNDS BY WEIGHT)
Aerosol	10
Non-aerosol	3
Undercoating - aerosol	**40**
Wood cleaner	
Aerosol	17
Non-aerosol	4

(Adopted effective July 26, 2007; Amended June 12, 2009; Amended October 5, 2017)

Sec. 22a-174-41. Architectural and industrial maintenance coatings - phase 1.

(a) **Definitions.** For the purposes of this section, the following definitions shall apply:

(1) "Adhesive" means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

(2) "Aerosol coating product" means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic marking applications.

(3) "Antenna coating" means a coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

(4) "Antifouling coating" means a coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms.

(5) "Appurtenance" means any accessory to a stationary structure including, but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways; fixed ladders; catwalks; fire escapes; and window screens.

(6) "Architectural coating" means a coating to be applied to stationary structures and their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars and automobiles, as well as adhesives are excluded from the definition of "architectural coating."

(7) "ASTM" means the American Society for Testing and Materials.

(8) "BAAQMD" means the Bay Area Air Quality Management District.

(9) " Bitumen" means black or brown materials including, but not limited to, asphalt, tar, pitch and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons,

and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

(10) ”Bituminous roof coating” means a coating that incorporates bitumen that is labeled and formulated exclusively for roofing with the primary purpose of preventing water penetration.

(11) ”Bituminous roof primer” means a primer that incorporates bitumen that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered and aged surface or improving the adhesion of subsequent surfacing components.

(12) ”Bond breaker” means a coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

(13) ”Calcimine recoater” means flat, solvent-borne coating formulated and recommended specifically for recoating calcimine-painted ceilings and other calcimine-painted substrates.

(14) “CAS” means Chemical Abstract Service.

(15) “Clear brushing laquer” means clear wood finish, excluding clear lacquer sanding sealer, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film. Such laquer is intended to be applied only with a brush.

(16) ”Clear wood coating” means a clear and semi-transparent coating, including lacquers and varnishes, applied to a wood substrate, to provide a transparent or translucent solid film.

(17) ”Coating” means a material applied onto or impregnated into a substrate for protective, decorative or functional purposes. Such materials include, but are not limited to, paint, varnish, sealer and stain.

(18) ”Colorant” means concentrated pigment dispersion in water, solvent or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

(19) ”Concrete curing compound” means a coating labeled and formulated for application to freshly poured concrete to perform one or more of the following functions:

(A) Retard the evaporation of water; or

(B) Harden or dustproof the surface of freshly poured concrete.

(20) ”Concrete surface retarder” means a mixture of retarding ingredients such as extender pigments, primary pigments, resin and solvent that interact chemically with the cement to prevent hardening on the surface where the retarder is applied, allowing the retarded mix or cement and sand at the surface to be washed away to create an exposed aggregate finish.

(21) “Conversion varnish” means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single or two-component product. “Conversion varnish” produces a hard, durable, clear finish designed for professional application to wood flooring. This film formation is the result of an acid-catalyzed condensation reaction, affecting a transetherification at the reactive ethers of the amino resins.

(22) "Dry fog coating" means a coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

(23) "Exempt compound" means a compound identified in 40 CFR 51.100(s) under "volatile organic compounds," as amended from time to time, as having negligible photochemical reactivity.

(24) "Faux finishing coating" means a coating labeled and formulated as a stain or a glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage and simulated marble and wood grain.

(25) "Fire-resistive coating" means a coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. "Fire-resistive coating" includes sprayed fire-resistive materials and intumescent fire-resistive coatings that are used to bring structural materials into compliance with federal, state, and local building code requirements.

(26) "Fire-retardant coating" means a coating labeled and formulated to retard ignition and flame spread.

(27) "Flat coating" means a coating that is not defined under any other definition in this section and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter.

(28) "Floor coating" means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors and other horizontal surfaces which may be subjected to foot traffic.

(29) "Flow coating" means a coating labeled and formulated exclusively for use to maintain the protective coating systems present on utility transformer units.

(30) "Form-release compound" means a coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal or some material other than concrete.

(31) "Graphic arts coating or sign paint" means a coating labeled and formulated for hand-application by artists using brush, airbrush or roller techniques to indoor and outdoor signs, not including structural components, and murals including letter enamel, poster color, copy blocker, and bulletin enamel.

(32) "High temperature coating" means a high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

(33) "Impacted immersion coating" means a high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high-energy impact damage by floating ice or debris.

(34) "Industrial maintenance coating" means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats and topcoats, formulated for application to substrates, including floors, exposed to one or more of the following extreme

environmental conditions:

(A) Immersion in water, wastewater or chemical solutions (aqueous and non-aqueous solutions), or chronic exposures of interior surfaces to moisture condensation;

(B) Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

(C) Frequent exposure to temperatures above 121°C (250°F);

(D) Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers or scouring agents; or

(E) Exterior exposure of metal structures and structural components.

(35) "Lacquer" means a clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

(36) "Low solids coating" means a coating containing 0.12 kilogram or less of solids per liter (one pound or less of solids per gallon) of coating material as recommended for application by the manufacturer.

(37) "Magnesite cement coating" means a coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

(38) "Manufacturer's formulation data" means data regarding a coating that are supplied by the materials manufacturer based on the manufacturer's knowledge of the ingredients used to manufacture that coating, rather than on an EPA reference test method. "Manufacturer's formulation data" may include but are not limited to information on density, VOC content and coating solids content.

(39) "Mastic texture coating" means a coating labeled and formulated to cover holes and minor cracks and conceal surface irregularities, which is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

(40) "Metallic pigmented coating" means a coating that is labeled and formulated to provide a metallic appearance and that contains at least 48 grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon).

(41) "Multi-color coating" means a coating that is packaged in a single container and labeled and formulated to exhibit more than one color when applied in a single coat.

(42) "Multi-component coating" means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film.

(43) "Nonflat coating" means a coating that is not defined under any other definition in this section and registers a gloss of 15 or greater on an 85-degree meter and five or greater on a 60-degree meter.

(44) "Nonflat-high gloss coating" means a nonflat coating that registers a gloss of 70 or above on a 60-degree meter.

(45) "Nuclear coating" means a protective coating formulated and recommended to seal porous surfaces such as steel or concrete that otherwise would be subject to intrusion by

radioactive materials. Such coatings are resistant to long-term (service life) cumulative radiation exposure, relatively easy to decontaminate and resistant to various chemicals to which such coatings are likely to be exposed.

(46) "NYSDEC" means the New York State Department of Environmental Conservation.

(47) "Post-consumer coating" means a finished coating generated by a business or consumer that has served its intended end use and is recovered from or otherwise diverted from the waste stream for the purpose of recycling.

(48) "Pre-treatment wash primer" means a primer containing a minimum of 0.5 percent acid, by weight, labeled and formulated for direct application to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

(49) "Primer" means a coating labeled and formulated for application to a substrate to provide a firm bond between the substrate and subsequent coats.

(50) "Quick-dry enamel" means a nonflat coating that is labeled as specified in subsection (e) of this section and that is formulated to have the following characteristics:

(A) Capable of being applied directly from the container under normal conditions with ambient temperatures between 16° and 27°C (60° and 80°F);

(B) Tack free in four hours or less and dries hard in eight hours or less by the mechanical test methods; and

(C) A dried film gloss of 70 or above on a 60-degree meter.

(51) "Quick-dry primer sealer and undercoater" means a primer sealer or under-coater that is dry to the touch in 30 minutes and can be re-coated in two hours.

(52) "Recycled coating" means an architectural coating formulated to contain a minimum of 50 percent by volume post-consumer coating, with a maximum of 50 percent by volume secondary industrial materials or virgin materials.

(53) "Roof coating" means a non-bituminous coating labeled and formulated for application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation.

(54) "Rust preventive coating" means a coating formulated to prevent the corrosion of metal surfaces. "Rust preventative coating" includes direct-to-metal coating and coating intended for application over rusty, previously coated surfaces. "Rust preventative coating" does not include coatings that are required to be applied as a topcoat over a primer or coatings that are intended for use on wood or any other nonmetallic surface.

(55) "Sanding sealer" means a clear or semi-transparent wood coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of coatings. A "sanding sealer" that also meets the definition of a lacquer shall be excluded from this definition and shall be considered a lacquer.

(56) "SCAQMD" means the South Coast Air Quality Management District, a part of the California Air Resources Board.

(57) "Sealer" means a coating labeled and formulated for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed

by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

(58) "Secondary industrial material" means a product or by-product of the paint manufacturing process that is of known composition and has economic value but can no longer be used for its intended use.

(59) "Shellac" means a clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Laciffer lacca*) and formulated to dry by evaporation without a chemical reaction.

(60) "Shop application" means the application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production or repairing process (e.g., original equipment manufacturing coatings).

(61) "Solicit" means to require for use or to specify by written or oral contract.

(62) "Specialty primer, sealer and undercoater" means a coating that is formulated for application to a substrate to seal fire, smoke or water damage, to condition excessively chalky surfaces, or to block stains. For the purposes of this definition, an excessively chalky surface is one that is defined as having a chalk rating of four or less.

(63) "Stain" means a semi-transparent or opaque coating labeled and formulated to change the color of a surface, but not conceal the grain pattern or texture.

(64) "Swimming pool coating" means a coating labeled and formulated to coat the interior of swimming pools and resist swimming pool chemicals.

(65) "Swimming pool repair and maintenance coating" means a rubber-based coating labeled and formulated to be used over existing rubber-based coatings for the repair and maintenance of swimming pools.

(66) "Temperature-indicator safety coating" means a coating labeled and formulated as a color-changing indicator coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

(67) "Thermoplastic rubber coating and mastic" means a coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients, including, but not limited to, fillers, pigments and modifying resins.

(68) "Tint base" means an architectural coating to which colorant is added, after packaging in sale units, to produce a desired color.

(69) "Traffic marking coating" means a coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks and airport runways.

(70) "Undercoater" means a coating labeled and formulated to provide a smooth surface for subsequent coatings.

(71) "Varnish" means a clear or semi-transparent wood coating, excluding lacquers and shellacs, formulated to dry by chemical reaction. "Varnish" may contain small amounts of pigment to color a surface or to control the final sheen or gloss of the finish.

(72) "VOC content" means the weight of VOC per volume of coating.

(73) "Waterproofing sealer" means a coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water.

(74) "Waterproofing or masonry sealer" means a clear or pigmented film-forming coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light and staining.

(75) "Wood preservative" means a coating labeled and formulated to protect exposed wood from decay or insect attack.

(b) **Applicability.**

(1) Except as provided in subsection (c) of this section, this section applies to any person who sells, supplies, offers for sale or manufactures for sale in the state of Connecticut any architectural coating for use in the state of Connecticut and to any person who applies or solicits the application of any architectural coating within the state of Connecticut.

(2) The requirements of this section apply to products manufactured prior to May 1, 2018. Any architectural coating manufactured prior to May 1, 2018 that complies with the requirements of this section may be sold, supplied or offered for sale through April 30, 2021.

(c) **Exemptions and exceptions.**

(1) This section shall not apply to any architectural coating manufactured in the state of Connecticut for shipment, sale and use outside of the state of Connecticut or for shipment to other manufacturers for reformulation or repackaging.

(2) A coating manufactured prior to May 1, 2018 may be applied at any time as long as the coating complies with any applicable VOC standard in effect at the time the coating was manufactured. The exception offered in this subdivision shall only apply to a coating that displays a date or date code as required by subsection (e)(1) of this section.

(3) This section shall not apply to any aerosol coating product.

(4) This section shall not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less, including kits containing containers of different colors, types or categories of coatings and two component products. This exemption does not include (A) bundling of containers one liter or less, which are sold together as a unit, or any type of marketing which implies that multiple containers one liter or less be combined into one container; (B) packaging from which the coating cannot be applied; and (C) multiple containers of one liter or less that are packaged and shipped together with no intent or requirement to ultimately sell as one unit.

(5) As used in this section, the terms "supply" and "supplied" shall not include internal transfers or transactions involving architectural coatings to, from or within an installation operated by any branch of the U.S. military.

(d) **Standards.**

(1) Except as provided in subdivisions (2) and (8) of this subsection and subsection (c) of this section, no person shall manufacture, blend or repackage for sale within the state of Connecticut, supply, sell or offer for sale within the state of Connecticut or solicit for

application or apply within the state of Connecticut any architectural coating that contains VOCs in excess of the applicable VOC content limits specified in Table 41-1. The VOC content limits of Table 41-1 apply to the grams of VOC per liter of coating and shall be determined according to subsection (g) of this section.

(2) Except as provided in subdivision (3) of this subsection, the most restrictive VOC content limits of Table 41-1 shall apply if anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or any person acting on the manufacturer's behalf, including retailers who sell under a private label, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table 41-1.

(3) The requirements of subdivision (2) of this subsection shall not apply to the following coating categories:

(A) Antenna coatings;
(B) Antifouling coatings;
(C) Bituminous roof primers;
(D) Calcimine recoaters;
(E) Concrete surface retarders;
(F) Fire-retardant coatings;
(G) Flow coatings;
(H) High temperature coatings;
(I) Impacted immersion coatings;
(J) Industrial maintenance coatings;
(K) Lacquer coatings, including lacquer sanding sealers;
(L) Low-solids coatings;
(M) Metallic pigmented coatings;
(N) Nuclear coatings;
(O) Pretreatment wash primers;
(P) Shellacs;
(Q) Specialty primers, sealers and undercoaters;
(R) Temperature-indicator safety coatings;
(S) Thermoplastic rubber coatings and mastics; or
(T) Wood preservatives.

(4) All containers of coating that are applied directly to a surface from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means shall be closed when not in use. These containers include, but are not limited to, drums, buckets, cans, pails, trays, or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall be closed when not in use.

(5) No person who applies or solicits the application of any architectural coating shall add additional solvent to a coating if such addition causes the coating to exceed the applicable VOC limit specified in Table 41-1 of this section.

(6) No person shall apply or solicit the application of any rust preventive coating for industrial use, unless such a rust preventive coating complies with the industrial maintenance coating VOC limit specified in Table 41-1 of this section.

(7) For any coating that is not identified in this section, the VOC content limit shall be determined by classifying the coating as a flat coating, nonflat coating or nonflat-high gloss coating, as those terms are defined in subsection (a) of this section, and the corresponding coating limit of Table 41-1 of this section shall apply.

(8) Notwithstanding the provisions of subdivision (1) of this subsection, a person may, at the time of application, add up to 10% by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater than 70% and temperature below 65°F, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.

(e) **Container labeling.**

(1) **Date code.** On each container of an architectural coating, the manufacturer shall clearly display the date the coating was manufactured, or a date code representing the date of manufacture, as follows:

(A) The date or date code shall be located on the label, lid or bottom of the container so that it is readily observable without dissembling the container or package; and

(B) If the manufacturer uses a date code for any coating, an explanation of such code shall be available to the commissioner upon request. A manufacturer shall respond to such a request within 90 days of receipt.

(2) **Thinning.** On the label or lid of the container of an architectural coating, the manufacturer shall display a statement of the manufacturer's recommendation regarding thinning of the coating. This requirement shall not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation shall specify that the coating is to be applied without thinning.

(3) **VOC content.** On the label, lid or bottom of the container of an architectural coating, the manufacturer shall display either the maximum or the actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. The VOC content shall be displayed in grams of VOC per liter of coating. The VOC content displayed shall be calculated using the manufacturer's formulation data or shall be determined using the calculations, procedures and test methods in subsection (g) of this section.

(4) **Industrial maintenance coatings.** The manufacturer of any industrial maintenance coating shall prominently display on the label at least one of the following statements:

(A) "**For industrial use only**;"

(B) "**For professional use only**;"

(C) "**Not for residential use**"; or

(D) "**Not intended for residential use**."

(5) **Clear brushing lacquer.** On the label of any clear brushing lacquer, the manufacturer shall prominently display the statements: "**For brush application only**" and "**This product**

must not be thinned or sprayed."

(6) **Rust preventive coatings.** On the label of any rust preventive coating, the manufacturer shall prominently display the statement: "**For metal substrates only**."

(7) **Specialty primers, sealers and undercoaters.** The manufacturer of any specialty primer, sealer or undercoater shall prominently display on the label one or more of the descriptions listed in subparagraphs (A) through (E) of this subdivision, as follows:

(A) "**For blocking stains**;"

(B) "**For fire-damaged substrates**;"

(C) "**For smoke-damaged substrates**;"

(D) "**For water-damaged substrates**;" or

(E) "**For excessively chalky substrates**."

(8) **Quick dry enamels.** The manufacturer of any quick dry enamel shall prominently display on the label the dry hard time and the words "**quick dry**."

(9) **Non-flat high-gloss coatings.** The manufacturer of any non-flat high-gloss coating shall display prominently on the label the words "**high gloss**."

(f) **Record keeping and reporting requirements.**

(1) Each manufacturer of a product subject to a VOC content limit in subsection (d) of this section shall maintain records demonstrating compliance with such VOC content limits, including the following information:

(A) The product name and, if applicable, the identifying number, as shown on the product label and in sales and technical literature;

(B) The VOC content as determined according to subsection (g) of this section;

(C) The name(s) and CAS number of the VOC constituents in the product;

(D) The dates of the VOC content determinations;

(E) The coating category; and

(F) The applicable VOC content limit.

(2) All records made to demonstrate compliance with this section shall be maintained for five years from the date such record is created and shall be made available to the commissioner or the Administrator not later than 90 days after a request.

(3) Each manufacturer of a coating subject to this section shall, upon request of the commissioner, provide data concerning the distribution and sales of coatings subject to a VOC content limit in subsection (d) of this section. The manufacturer shall, not later than 90 days after receiving such a request, produce information including, but not limited to:

(A) The name and mailing address of the manufacturer;

(B) The name, address and telephone number of a contact person;

(C) The name of the product as it appears on the label and the applicable coating;

(D) Whether the coating is marketed for interior use, exterior use or both;

(E) The number of gallons sold in Connecticut in containers greater than one liter and equal to or less than one liter during the preceding calendar year;

(F) The actual VOC content and VOC content limit in grams per liter. If thinning is recommended, list the actual VOC content and VOC content limit after recommended

thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;

(G) The name and CAS number of the VOC constituents in the coating; and

(H) The name and CAS number of any exempt compounds in the coating.

(4) Any document submitted to the commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall inquire of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(g) **Compliance procedures, registration requirements and test methods.**

(1) Any person who sells, supplies, offers for sale or manufactures an architectural coating manufactured prior to May 1, 2018 for sale in Connecticut shall possess documentation that such coating complies with the VOC content limits of Table 41-1 of this section, where the VOC content is determined according to the requirements of subdivision (2) of this subsection.

(2) The VOC content of a coating shall be determined as follows:

(A) For all coatings that are not low solids coatings, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer's recommendation, excluding the volume of any water and exempt compounds, using the following equation:

VOC Content = (Ws - Ww - Wec)/ (Vm - Vw - Vec)

Where:

VOC Content = the VOC content of a coating (g/L of coating)

Ws = weight of volatile components (g)

Ww = weight of water (g)

Wec = weight of exempt compounds (g)

Vm = volume of coating (L)

Vw = volume of water (L)

Vec = volume of exempt compounds (L)

(B) For low solids coatings, determine the VOC content in grams per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any

water and exempt compounds, using the following equation:

VOC Content (ls) = (Ws - Ww - Wec)/ (Vm)

Where:

VOC Content (ls) = the VOC content of a low solids coating (g/L of coating) Ws = weight of volatile components (g)

Ww = weight of water (g)

Wec = weight of exempt compounds (g)

Vm = volume of coating (L)

(C) The VOC content of a tint base shall be determined prior to the addition of the colorant;

(D) The weight of volatile components (Ws) shall be determined using the manufacturer's formulation data or by measuring the physical properties of the coating using the procedures and test methods prescribed in subdivision (3) of this subsection;

(E) If the manufacturer does not recommend thinning, the VOC content shall be calculated for the product as supplied;

(F) If the manufacturer recommends thinning, the VOC content shall be calculated including the maximum amount of thinning solvent recommended by the manufacturer; and

(G) If the coating is a multi-component product, the VOC content shall be calculated as mixed or catalyzed.

(3) The following procedures shall be used to determine the physical properties of a coating in order to perform the calculations required pursuant to subdivision (2) of this subsection:

(A) The VOC content shall be calculated according to:

(i) EPA Reference Method 24, 40 CFR 60, Appendix A,

(ii) SCAQMD Method 304-91 (revised February 1996), unless the results are inconsistent with the results of a determination pursuant to subparagraph (A)(i) of this subdivision, or

(iii) An alternative test method approved by the New York Department of Environmental Conservation and the Administrator pursuant to NYSDEC Regulations Part 205.6(c);

(B) The exempt compound content shall be determined using SCAQMD Method 303-91 (revised 1993), except as follows:

(i) Parachlorobenzotriflouride content shall be determined using BAAQMD Method 41 (revised 1995), and

(ii) Exempt compounds that are cyclic, branched or linear methylated siloxanes shall be determined using BAAQMD Method 43 (revised 1996); and

(C) Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to 40 CFR 59, Subpart D, Appendix A.

(4) Fire-resistive coatings and fire-retardant coatings shall be fire tested and rated by a testing agency according to the appropriate methods listed in subdivision (6) of this subsection.

(5) The following materials are subject to registration as follows:

(A) Antifouling coatings shall be registered with the Administrator under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. section 136 et seq.); and

(B) Wood preservatives shall be registered under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. section 136, et. seq.).

(6) The following test methods or the most current active standard of the designated method shall be used to test coatings for the identified properties, as applicable:

(A) Acid content of coatings. The acid content of a coating shall be determined by ASTM D1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products;"

(B) Chemical resistance for nuclear coatings. Chemical resistance to various chemicals to which nuclear coatings are likely to be exposed shall be measured by ASTM D3912-10, "Standard Test Method for Chemical Resistance of Coatings and Linings for Use in Nuclear Power Plants;"

(C) Drying times. The set-to-touch and dry-to-recoat times of a coating shall be determined by ASTM D1640-03 (2009), "Standard Test Methods for Drying, Curing or Film Formation of Organic Coatings at Room Temperature;"

(D) Fire-resistance rating. The fire-resistance rating of a fire-resistive coating shall be determined by ASTM E119-12, "Standard Test Methods for Fire Tests of Building Construction and Materials;"

(E) Flame spread index. The flame spread index of a fire-retardant coating shall be determined by ASTM E84-12, "Standard Test Method for Surface Burning Characteristics of Building Materials;"

(F) Gloss determination. The gloss of a coating shall be determined by ASTM D523-08, "Standard Test Method for Specular Gloss;"

(G) Long term cumulative radiation exposure. Long-term (service life) cumulative radiation exposure of nuclear coatings shall be measured by ASTM D4082-10, "Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Nuclear Power Plants;"

(H) Metal content of coatings. The metallic content of a coating shall be determined by SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," SCAQMD Laboratory Methods of Analysis for Enforcement Samples; and

(I) Surface chalkiness. The chalkiness of a surface shall be determined using ASTM D4214-07, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films."

Table 41-1. VOC Content Limits for Architectural Coatings Manufactured Prior to May 1, 2018

Coating category	VOC content limit (grams VOC per liter)
Flat coating	100
Nonflat coating	150
Nonflat-high gloss coating	250
Specialty Coating	
Antenna coating	530
Antifouling coating	400
Bituminous roof coating	300
Bituminous roof primer	350
Bond breaker	350
Calcimine recoater	475
Clear wood coating	
Clear brushing laquer	680
Laquer (including lacquer sanding sealer)	550
Sanding sealer other than lacquer sanding sealer	350
Varnish	350
Conversion varnish	725
Concrete curing compound	350
Concrete surface retarder	780
Dry fog coating	400
Faux finishing coating	350
Fire resistive coating	350
Fire retardant coating	
Clear	650
Opaque	350
Floor coating	250
Flow coating	420
Form-release compound	250
Graphic arts coating (sign paints)	500

Coating category	VOC content limit (grams VOC per liter)
High temperature coating	420
Impacted immersion coating	780
Industrial maintenance coating	340
Low solids coating	120
Magnesite cement coating	450
Mastic texture coating	300
Metallic pigmented coating	500
Multi-color coating	250
Nuclear coating	450
Pre-treatment wash primer	420
Primer, sealer and undercoater	200
Quick-dry enamel	250
Quick-dry primer, sealer and undercoater	200
Recycled coating	250
Roof coating	250
Rust preventive coating	400
Shellac	
Clear	730
Opaque	550
Specialty primer, sealer and undercoater	350
Stain	250
Swimming pool coating	340
Temperature-indicator safety coating	550
Thermoplastic rubber coating and mastic	550
Traffic marking coating	150
Waterproofing sealer	250
Waterproofing concrete or masonry sealer	400
Wood preservative	350

(Adopted effective July 26, 2007; Amended October 5, 2017)

Sec. 22a-174-41a. Architectural and industrial maintenance coatings - phase 2.

(a) **Definitions.** For the purposes of this section, the following definitions shall apply:

(1) "Adhesive" means any chemical substance that is applied for the purpose of bonding two surfaces together by other than mechanical means.

(2) "Aerosol coating product" means a pressurized coating product containing pigments or resins that is dispensed by means of a propellant and that is packaged either in a disposable can for hand-held application or for use in specialized equipment for ground traffic marking applications.

(3) "Aluminum roof coating" means a coating labeled and formulated exclusively for application to roofs and containing at least 84 grams of elemental aluminum pigment per liter of coating.

(4) "Appurtenance" means any accessory to a stationary structure including, but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways; fixed ladders; catwalks; fire escapes; and window screens.

(5) "Architectural coating" means a coating applied to stationary structures and their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements or to curbs. "Architectural coatings" do not include any coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars or automobiles or any adhesive.

(6) "ASTM" means the American Society for Testing and Materials.

(7) "BAAQMD" means the Bay Area Air Quality Management District.

(8) "Basement specialty coating" means a clear or opaque coating that is labeled and formulated for application to basements and other below-grade surfaces constructed of concrete or masonry to provide a hydrostatic seal capable of withstanding at least 10 psi of hydrostatic pressure and that is resistant to mold and mildew growth and able to achieve a microbial growth rating of 8 or more.

(9) "Bitumen" means black or brown materials including, but not limited to, asphalt, tar, pitch and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

(10) "Bituminous roof coating" means a coating that incorporates bitumen that is labeled and formulated exclusively for roofing for the primary purpose of preventing water penetration.

(11) "Bituminous roof primer" means a primer that incorporates bitumen that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered and aged surface or improving the adhesion of subsequent surfacing components.

(12) "Bond breaker" means a coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

(13) "Calcimine recoater" means a flat, solvent-borne coating formulated and recommended specifically for recoating calcimine-painted ceilings and other calcimine-painted substrates.

(14) "CAS" means Chemical Abstract Service.

(15) "Coating" means a material applied onto or impregnated into a substrate for protective, decorative or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers and stains.

(16) "Colorant" means a concentrated pigment dispersion in water, solvent or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

(17) "Concrete curing compound" means a coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water, harden the surface of freshly poured concrete or dustproof the surface of freshly poured concrete.

(18) "Concrete or masonry sealer" means a clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one or more of the following functions:

(A) Prevent penetration of water;

(B) Provide resistance against abrasion, alkalis, acids, mildew, staining or ultraviolet light; or

(C) Harden or dustproof the surface of aged or cured concrete.

(19) "Concrete surface retarder" means a mixture of retarding ingredients such as extender pigments, primary pigments, resin and solvent that interact chemically with the cement to prevent hardening on the surface where the retarder is applied, allowing the retarded mix or cement and sand at the surface to be washed away to create an exposed aggregate finish.

(20) "Conjugated oil varnish" means clear or semi-transparent wood coating based on a natural occurring conjugated vegetable oil (Tung oil) and modified with other natural or synthetic resins of which a minimum of 50% of the resin solids consist of conjugated oil and that may otherwise contain small amounts of pigment to control the final gloss or sheen and, when supplied as a single component product, penetrates and seals the wood with a film formulation that is due to polymerization of the oil. "Conjugated oil varnish" does not include lacquers or shellacs. For the purposes of this definition, "lacquer" means "lacquer" as defined in section 22a-174-41(a)(35) of the Regulations of Connecticut State Agencies.

(21) "Conversion varnish" means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-compound product that produces a hard, durable, clear finish designed for professional application to wood flooring due to an acid-catalyzed condensation reaction, affecting a transetherification at the reactive ethers of the amino resins.

(22) "Driveway sealer" means a coating labeled and formulated for application to worn asphalt driveway surfaces to perform one or more of the following functions:

(A) Fill cracks;

(B) Seal the surface to provide protection; or

(C) Restore or preserve the appearance.

(23) "Dry fog coating" means a coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

(24) "Exempt compound" means a compound identified in 40 CFR 51.100(s)(1), as amended from time to time, as having negligible photochemical reactivity.

(25) "Faux finishing coating" means a coating labeled and formulated to meet one or more of the following criteria:

(A) A glaze or textured coating used to create artistic effects including, but not limited to dirt, suede, old age, smoke damage, and simulated marble and wood grain;

(B) A decorative coating used to create a metallic, iridescent or pearlescent appearance that contains at least 48 grams of pearlescent mica pigment or other iridescent pigment per liter of coating as applied;

(C) A decorative coating used to create a metallic appearance that contains less than 48 grams of elemental metallic pigment per liter of coating as applied;

(D) A decorative coating used to create a metallic appearance that contains greater than 48 grams of elemental metallic pigment per liter of coating as applied and that requires a clear topcoat to prevent the degradation of the finish under normal use conditions; or

(E) A clear topcoat to seal and protect a faux finishing coating that meets one or more of the requirements in subparagraphs (A) to (D), inclusive, of this subdivision and that is labeled, sold and used solely as part of a faux finishing coating system.

(26) "Fire-resistive coating" means a coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. "Fire-resistive coating" includes sprayed fire-resistive materials and intumescent fire-resistive coatings that are used to bring structural materials into compliance with federal, state and local building code requirements.

(27) "Flat coating" means a coating that is not defined under any other definition in this section and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter.

(28) "Floor coating" means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors and other horizontal surfaces that may be subjected to foot traffic.

(29) "Form-release compound" means a coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to a form that may consist of wood, metal or some material other than concrete.

(30) "Graphic arts coating" or "sign paint" means a coating labeled and formulated for hand-application using a brush, airbrush or roller to indoor or outdoor signs, excluding structural components, and murals including letter enamels, poster colors, copy blockers and bulletin enamels.

(31) "High temperature coating" means a high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to

temperatures above 204°C (400°F).

(32) "Impacted immersion coating" means a high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water and that is specifically resistant to high-energy impact damage by floating ice or debris.

(33) "Industrial maintenance coating" means a high performance architectural coating, including primer, sealer, undercoater, intermediate coat and topcoat, formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions:

(A) Immersion in water, wastewater or chemical solutions (aqueous and non-aqueous solutions);

(B) Chronic exposures of interior surfaces to moisture condensation;

(C) Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

(D) Frequent exposure to temperatures above 121°C (250°F);

(E) Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers or scouring agents; or

(F) Exterior exposure of metal structures and structural components.

(34) "Low solids coating" means a coating containing 0.12 kilogram or less of solids per liter of coating material as recommended for application by the manufacturer.

(35) "Magnesite cement coating" means a coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

(36) "Manufacturer's formulation data" means data that are supplied by the materials manufacturer based on the manufacturer's knowledge of the ingredients used to manufacture a coating, rather than on an EPA reference test method, including, but not limited to, information on density, VOC content and coating solids content.

(37) "Manufacturer's maximum thinning recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of a coating container.

(38) "Mastic texture coating" means a coating labeled and formulated to cover holes and minor cracks and conceal surface irregularities, which is applied in a single coat of at least 10 mils dry film thickness.

(39) "Metallic pigmented coating" means a coating that is labeled and formulated to provide a metallic appearance and that contains at least 48 grams of elemental metallic pigment per liter of coating as applied. "Metallic pigmented coating" does not include coatings applied to roofs or zinc-rich primers.

(40) "Multi-color coating" means a coating that is packaged in a single container and labeled and formulated to exhibit more than one color when applied in a single coat.

(41) "Multi-component coating" means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film.

(42) "Nonflat coating" means a coating that is not defined under any other definition in this section and registers a gloss of 15 or greater on an 85-degree meter and five or greater on a 60-degree meter.

(43) "Nonflat-high gloss coating" means a nonflat coating that registers a gloss of 70 or above on a 60-degree meter.

(44) "Nuclear coating" means a protective coating formulated and recommended to seal porous surfaces such as steel or concrete that otherwise would be subject to intrusion by radioactive materials. "Nuclear coating" is resistant to long-term (service life) cumulative radiation exposure, relatively easy to decontaminate and resistant to various chemicals to which such a coating is likely to be exposed.

(45) "NYSDEC" means the New York State Department of Environmental Conservation.

(46) "Pearlescent" means exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

(47) "Post-consumer coating" means a finished coating generated by a business or consumer that has served its intended end use and is recovered from or otherwise diverted from the waste stream for the purpose of recycling.

(48) "Pre-treatment wash primer" means a primer that contains a minimum of 0.5 percent acid, by weight. "Pre-treatment wash primer" is labeled and formulated for direct application to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

(49) "Primer, sealer, and undercoater" means a coating labeled and formulated for one or more of the following purposes:

(A) To provide a firm bond between the substrate and the subsequent coatings;

(B) To prevent subsequent coatings from being absorbed by the substrate;

(C) To prevent harm to subsequent coatings by materials in the substrate;

(D) To provide a smooth surface for the subsequent application of coatings;

(E) To provide a clear finish coat to seal the substrate; or

(F) To block materials from penetrating into or leaching out of a substrate.

(50) "Reactive penetrating sealer" means a clear or pigmented coating that (A) is labeled and formulated for application to above-grade concrete and masonry substrates to provide protection from water and waterborne contaminants, including but not limited to, alkalis, acids and salts, (B) penetrates into concrete and masonry substrates and chemically reacts to form covalent bonds with naturally occurring minerals in the substrate, (C) lines the pores of concrete and masonry substrates with a hydrophobic coating, but does not form a surface film, and (D) improves water repellency by at least 80 percent and does not reduce the water vapor transmission rate by more than 2 percent after application on a concrete or masonry substrate.

(51) "Reactive penetrating carbonate stone sealer" means a clear or pigmented coating that (A) is labeled and formulated for application to above-grade carbonate stone substrates to provide protection from water and waterborne contaminants, including but not limited to, alkalis, acids and salts, (B) penetrates into carbonate stone substrates and chemically

reacts to form covalent bonds with naturally occurring minerals in the substrate, (C) lines the pores of carbonate stone substrates with a hydrophobic coating, but does not form a surface film, and (D) improves water repellency at least 80 percent and does not reduce the water vapor transmission rate by more than 10 percent after application on a carbonate stone substrate.

(52) "Recycled coating" means an architectural coating formulated such that it contains a minimum of 50 percent by volume post-consumer coating, with a maximum of 50 percent by volume secondary industrial materials or virgin materials.

(53) "Roof coating" means a non-bituminous coating labeled and formulated for application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light or reflecting solar radiation.

(54) "Rust preventive coating" means a coating formulated to prevent the corrosion of metal surfaces. "Rust preventative coating" does not include coatings applied as a topcoat over a primer or coatings used on wood or any other nonmetallic surface.

(55) "SCAQMD" means the South Coast Air Quality Management District, a regional regulatory authority in California.

(56) "Sealer" means a coating labeled and formulated for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

(57) "Secondary industrial material" means a product or by-product of the paint manufacturing process that is of known composition and has economic value but can no longer be used for its intended use.

(58) "Semi-transparent coating" means a coating that contains binders and colored pigments and is formulated to change the color of the surface, but not conceal the grain pattern or texture.

(59) "Shellac" means a clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Laciffer lacca*) and formulated to dry by evaporation without a chemical reaction.

(60) "Shop application" means the application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production or repairing process.

(61) "Solicit" means to require for use or to specify by written or oral contract.

(62) "Specialty primer, sealer and undercoater" means a coating that is formulated for application to a substrate to block water-soluble stains resulting from fire damage, smoke damage or water damage.

(63) "Stain" means a semi-transparent or opaque coating labeled and formulated to change the color of a surface, but not conceal the grain pattern or texture.

(64) "Stone consolidant" means a coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. "Stone consolidant" penetrates into stone substrates to create bonds between particles and consolidate deteriorated material.

(65) "Swimming pool coating" means a coating labeled and formulated to coat the interior of swimming pools and resist swimming pool chemicals. "Swimming pool coating" includes coatings used for swimming pool repair and maintenance.

(66) "Thermoplastic rubber coating and mastic" means a coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments and modifying resins.

(67) "Tint base" means an architectural coating to which colorant is added, after packaging in sale units, to produce a desired color.

(68) "Traffic marking coating" means a coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks and airport runways.

(69) "Tub and tile refinish coating" means a clear or opaque coating that is labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. "Tub and tile refinish coating" is formulated to have the following properties, as determined in accordance with the applicable testing methods specified in subsection (g) of this section:

(A) Adhesion rating of 4B or better after 24 hours of recovery;

(B) Scratch hardness of 3H or harder;

(C) Gouge hardness of 4H or harder; and

(D) Ability to withstand 1000 hours or more of exposure with few or no #8 blisters.

(E) A weight loss of 20 milligrams or less after 1000 cycles.

(70) "Undercoater" means a coating labeled and formulated to provide a smooth surface for subsequent coatings.

(71) "Varnish" means a clear or semi-transparent wood coating, excluding lacquers and shellacs, formulated to dry by chemical reaction and that may contain small amounts of pigment to color a surface or to control the final sheen or gloss of the finish. For the purposes of this definition, "lacquer" means "lacquer" as defined in section 22a-174-41(a)(35) of the Regulations of Connecticut State Agencies.

(72) "VOC content" means the weight of VOC per volume of coating.

(73) "Waterproofing membrane" means a clear or opaque coating that is labeled and formulated to be applied in a single coat of at least 25 mils dry film thickness to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents any penetration of liquid water into the substrate and that is intended for any of the following waterproofing applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters and under flooring materials. "Waterproofing membrane" does not include topcoats that are concrete or masonry sealer.

(74) "Wood coating" means a coating labeled and formulated for application to wood substrates only. "Wood coating" includes clear and semi-transparent lacquer, varnish, sanding sealer, penetrating oil, clear stain, wood conditioner used as undercoats and wood sealer used as topcoat; opaque lacquer; opaque sanding sealer and opaque lacquer

undercoater. "Wood coating" does not include clear sealer that is labeled and formulated for use on concrete or masonry surfaces or coatings intended for substrates other than wood.

(75) "Wood preservative" means a coating labeled and formulated to protect exposed wood from decay or insect attack.

(76) "Zinc-rich primer" means a coating intended for professional use only that meets the following specifications:

(A) Contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and

(B) Is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings.

(b) **Applicability.**

Except as provided in subsection (c) of this section, this section applies to any person who, on or after May 1, 2018, sells, supplies, offers for sale or manufactures for sale in the state of Connecticut any architectural coating manufactured on or after May 1, 2018 for use in the state of Connecticut and to any person who applies or solicits the application of any architectural coating within the state of Connecticut on or after May 1, 2018.

(c) **Exemptions and exceptions.**

(1) This section shall not apply to any architectural coating manufactured in the state of Connecticut for shipment, sale and use outside of the state of Connecticut or for shipment to other manufacturers for reformulation or repackaging.

(2) This section shall not apply to an architectural coating manufactured prior to May 1, 2018.

(3) This section shall not apply to any aerosol coating product.

(4) This section shall not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less, including kits containing containers of different colors, types or categories of coatings and two component products. This exemption does not include (A) bundling of containers one liter or less, which are sold together as a unit, or any type of marketing which implies that multiple containers one liter or less be combined into one container, (B) packaging from which the coating cannot be applied, and (C) multiple containers of one liter or less that are packaged and shipped together with no intent or requirement to ultimately sell as one unit.

(5) As used in this section, the terms "supply" and "supplied" shall not include internal transfers or transactions involving architectural coatings to, from or within an installation operated by any branch of the U.S. military.

(d) **Standards.**

(1) Except as provided in subdivision (2) of this subsection and subsection (c) of this section, no person shall manufacture, blend or repackage for sale within the state of Connecticut, supply, sell or offer for sale within the state of Connecticut or solicit for application or apply within the state of Connecticut any architectural coating manufactured on or after May 1, 2018 that contains VOCs in excess of the applicable VOC content limits specified in Table 41a-1. The VOC content limits of Table 41a-1 apply to the grams of

VOC per liter of coating and shall be determined according to subsection (g) of this section.

(2) Except as provided in subdivision (3) of this subsection, if anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or any person acting on the manufacturer's behalf, including retailers who sell under a private label, any representation is made that indicates that the coating meets the definition of or is recommended for use as more than one of the coating categories listed in Table 41a-1, then the most restrictive VOC content limit of Table 41a-1 shall apply.

(3) The most restrictive VOC content limit provision of subdivision (2) of this subsection shall not apply to the following coating categories:

(A) Aluminum roof coatings;
(B) Bituminous roof primers;
(C) Calcimine recoaters;
(D) Concrete surface retardants;
(E) High temperature coatings;
(F) Impacted immersion coatings;
(G) Industrial maintenance coatings;
(H) Low-solids coatings;
(I) Metallic pigmented coatings;
(J) Nuclear coatings;
(K) Pretreatment wash primers;
(L) Shellacs;
(M) Specialty primers, sealers and undercoaters;
(N) Thermoplastic rubber coatings and mastics;
(O) Wood coatings;
(P) Wood preservatives; or
(Q) Zinc-rich primers.

(4) All containers of coating that are applied directly to a surface from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means shall be closed when not in use. These containers include, but are not limited to, drums, buckets, cans, pails, trays, or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall be closed when not in use.

(5) No person who applies or solicits the application of any architectural coating shall apply a coating if additional solvent has been added to thin the coating such that the addition causes the coating to exceed the applicable VOC limit specified in Table 41a-1 of this section.

(6) For any coating that is not identified in this section, the VOC content limit shall be determined by classifying the coating as a flat coating, nonflat coating or nonflat-high gloss coating, as those terms are defined in subsection (a) of this section, and the corresponding coating limit of Table 41a-1 of this section shall apply.

(e) **Container labeling.**

(1) On each container of an architectural coating, the manufacturer shall clearly display the date the coating was manufactured, or a date code representing the date of manufacture, as follows:

(A) The date or date code shall be located on the label, lid or bottom of the container so that it is readily observable without dissembling the container or package; and

(B) If the manufacturer uses a date code for any coating, an explanation of such code shall be available to the commissioner upon request. A manufacturer shall respond to such a request within 90 days of receipt.

(2) On the label or lid of the container of an architectural coating, the manufacturer shall display a statement of the manufacturer's recommendation regarding thinning of the coating. This requirement shall not apply to the thinning of coatings with water. If thinning of the coating prior to use is not necessary, the recommendation shall specify that the coating is to be applied without thinning.

(3) On the label, lid or bottom of the container of an architectural coating, the manufacturer shall display one of the following values in grams of VOC per liter of coating:

(A) Maximum VOC content as determined from all potential product formulations;

(B) VOC content as determined from actual formulation data; or

(C) VOC content as determined using the test methods in subsection (g) of this section.

(4) The manufacturer of any industrial maintenance coating shall prominently display on the label at least one of the following statements:

(A) "**For industrial use only**";

(B) "**For professional use only**";

(C) "**Not for residential use**"; or

(D) "**Not intended for residential use.**"

(5) On the label of any rust preventive coating, the manufacturer shall prominently display the statement: "**For metal substrates only**".

(6) On the label of any specialty primer, sealer or undercoater, the manufacturer shall prominently display:

(A) "**For blocking stains**";

(B) "**For fire-damaged substrates**";

(C) "**For smoke-damaged substrates**"; or

(D) "**For water-damaged substrates.**"

(7) The manufacturer of any non-flat high-gloss coating shall display prominently on the label the words "**high gloss.**"

(8) On the label of any clear topcoat faux finishing coating, the manufacturer shall prominently display the statement: "**This product can only be sold or used as part of a faux finishing coating system**."

(9) On the label of any reactive penetrating sealer, the manufacturer shall prominently display the statement: "**reactive penetrating sealer**."

(10) On the label of any reactive penetrating carbonate stone sealer, the manufacturer shall prominently display the statement: "**reactive penetrating carbonate stone sealer**."

(11) On the label of any stone consolidant, the manufacturer shall prominently display the statement: "**stone consolidant – for professional use only**."

(12) On the label of any wood coating, the manufacturer shall prominently display the statement: "**for wood substrates only**."

(13) On the label of any zinc rich primer, the manufacturer shall prominently display one or more of the following statements:

(A) "**For professional use only**";

(B) "**For industrial use only**";

(C) "**Not for residential use**"; or

(D) "**Not intended for residential use**."

(f) **Record keeping and reporting requirements.**

(1) Each manufacturer of a product subject to a VOC content limit in Table 41a-1 of this section shall maintain records demonstrating compliance with such VOC content limit, including the following information:

(A) The product name and, if applicable, the identifying number, as shown on the product label and in sales and technical literature;

(B) The VOC content as determined according to subsection (g) of this section;

(C) The name(s) and CAS number of the VOC constituents in the product;

(D) The dates of the VOC content determinations;

(E) The coating category; and

(F) The applicable VOC content limit.

(2) All records made to demonstrate compliance with this section shall be maintained for five years from the date such record is created and shall be made available to the commissioner or the Administrator not later than 90 days after a request.

(3) Each manufacturer of a coating subject to this section shall, upon request of the commissioner, provide data concerning the distribution and sales of such a coating. The manufacturer shall, not later than 90 days after receiving such a request, produce information including, but not limited to:

(A) The name and mailing address of the manufacturer;

(B) The name, address and telephone number of a contact person;

(C) The name of the coating as it appears on the label;

(D) Whether the coating is marketed for interior use, exterior use or both;

(E) The number of gallons sold in Connecticut in containers greater than one liter and equal to or less than one liter during the preceding calendar year;

(F) The actual VOC content and VOC content limit in grams per liter. If thinning is recommended, list the actual VOC content and VOC content limit after recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;

(G) The name and CAS number of the VOC constituents in the coating;

(H) The name and CAS number of any exempt compounds in the coating;

(I) Whether the coating is marketed as solvent-borne, waterborne, or 100% solids;

(J) Description of resin or binder in the coating;

(K) Whether the coating is single-component or multi-component;

(L) The density of the coating in pounds per gallon;

(M) The percent by weight of solids, all volatile materials, water, and any exempt compounds; and

(N) The percent by volume of solids, water, and any exempt compounds in the product.

(4) If the manufacturer does not have or does not provide the information requested by the commissioner pursuant to subdivision (3) of this subsection, the commissioner may require the reporting of this information by the person that has the information, including, but not limited to, any formulator, manufacturer, supplier, parent company, retailer who sells under a private label, distributor or repackager.

(5) Any document submitted to the commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall inquire of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(g) **Compliance procedures, registration requirements and test methods.**

(1) Any person who sells, supplies, offers for sale or manufactures an architectural coating on or after May 1, 2018 for sale in Connecticut shall possess documentation that such coating complies with the VOC content limits of Table 41a-1 of this section, where the VOC content is determined according to the requirements of subdivision (2) of this subsection.

(2) The VOC content of a coating shall be determined as follows:

(A) For all coatings that are not low solids coatings, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer's recommendation, excluding the volume of any water and exempt compounds, using the following equation:

VOC Content = (Ws - Ww - Wec)/ (Vm - Vw - Vec)

Where:

VOC Content = the VOC content of a coating (g/L of coating)

Ws = weight of volatile components (g)

Ww = weight of water (g)
Wec = weight of exempt compounds (g)
Vm = volume of coating (L)
Vw = volume of water (L)
Vec = volume of exempt compounds (L);

(B) For low solids coatings, determine the VOC content in grams per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds, using the following equation:

VOC Content (ls) = (Ws - Ww - Wec)/ (Vm)
Where:
VOC Content (ls) = the VOC content of a low solids coating (g/L of coating)
Ws = weight of volatile components (g)
Ww = weight of water (g)
Wec = weight of exempt compounds (g)
Vm = volume of coating (L);

(C) The weight of volatile components (Ws) shall be determined using the manufacturer's formulation data or by measuring the physical properties of the coating using the procedures and test methods prescribed in subdivision (3) of this subsection;

(D) The VOC content of a tint base shall be determined prior to the addition of the colorant;

(E) If the manufacturer does not recommend thinning, the VOC content shall be calculated for the product as supplied;

(F) If the manufacturer recommends thinning, the VOC content shall be calculated including the maximum amount of thinning solvent recommended by the manufacturer;

(G) If the coating is a multi-component product, the VOC content shall be calculated as mixed or catalyzed; and

(H) If the coating contains a silane, siloxane, or other ingredient that generates ethanol or other VOCs during the curing process, the VOC content shall include the VOCs emitted during curing.

(3) The following procedures shall be used, as applicable, to determine the physical properties of a coating to perform the calculations required pursuant to subdivision (2) of this subsection:

(A) The VOC content shall be calculated according to one of the following:

(i) EPA Reference Method 24, 40 CFR 60, Appendix A, or

(ii) An alternative test method approved by the New York Department of Environmental Conservation and the Administrator pursuant to NYSDEC Regulations Part 205.6(c);

(B) The exempt compound content shall be determined using SCAQMD Method 303-91 (revised 1993), except as follows:

(i) Parachlorobenzotriflouride content shall be determined using BAAQMD Method 41 (revised 1995), and

(ii) Exempt compounds that are cyclic, branched or linear methylated siloxanes shall be

determined using BAAQMD Method 43 (revised 1996); and

(C) Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to 40 CFR 59, Subpart D, Appendix A.

(4) Fire-resistive coatings and fire-retardant coatings shall be fire tested and rated by a testing agency according to the appropriate methods listed in subdivision (6) of this subsection.

(5) The following materials are subject to registration as follows:

(A) Antifouling coatings shall be registered with the Administrator under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. section 136 et seq.); and

(B) Wood preservatives shall be registered under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. section 136, et. seq.).

(6) The following test methods or the most current active standard of the designated method shall be used to test coatings for the identified properties, as applicable:

(A) The acid content of a coating shall be determined by ASTM D1613-06, *Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products*;

(B) The chemical resistance to various chemicals to which nuclear coatings are likely to be exposed shall be measured by ASTM D3912-10, *Standard Test Method for Chemical Resistance of Coatings and Linings for Use in Nuclear Power Plants*;

(C) The set-to-touch and dry-to-recoat times of a coating shall be determined by ASTM D1640-03, *Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature*;

(D) The fire-resistance rating of a fire-resistive coating shall be determined by ASTM E119-12, *Standard Test Methods for Fire Tests of Building Construction and Materials*;

(E) The flame spread index of a fire-retardant coating shall be determined by ASTM E 84-12, *Standard Test Method for Surface Burning Characteristics of Building Materials*;

(F) The gloss of a coating shall be determined by ASTM D523-08, *Standard Test Method for Specular Gloss*;

(G) Long-term (service life) cumulative radiation exposure of nuclear coatings shall be measured by ASTM D4082-10, *Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Nuclear Power Plants*;

(H) The metallic content of a coating shall be determined by SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," SCAQMD Laboratory Methods of Analysis for Enforcement Samples;

(I) The chalkiness of a surface shall be determined using ASTM D4214-07, *Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films*;

(J) Hydrostatic pressure for basement specialty coatings shall be determined using ASTM D7088-08, *Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry*;

(K) Tub and tile refinish coating adhesion shall be determined using ASTM D4585-07, *Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation*

and ASTM D3359-09e2, *Standard Test Methods for Measuring Adhesion by Tape Test*;

(L) Tub and tile refinish coating hardness shall be determined using ASTM D3363-05(2011)e2, *Standard Test Method for Film Hardness by Pencil Test*;

(M) The abrasion resistance of a tub and tile refinish coating shall be determined using ASTM D4060-10, *Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser*;

(N) Tub and tile refinish coating water resistance shall be determined using ASTM D4585-07, *Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation* and ASTM D 714-02(2009), *Standard Test Method for Evaluating Degree of Blistering of Paints*;

(O) Microbial growth rating for basement specialty coatings shall be determined in accordance with ASTM D 3273-12, *Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber* and ASTM D3274-09e1, *Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth or Soil and Dirt Accumulation*;

(P) Water repellency for reactive penetrating sealers and reactive penetrating carbonate stone sealers shall be determined using ASTM C67-11, *Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile*; or ASTM C97/C97M-09, *Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone*; or ASTM C140-12, *Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units*; and

(Q) Water vapor transmission rate for reactive penetrating sealers and reactive penetrating carbonate stone sealers shall be determined using ASTM E96/E96M-10, *Standard Test Methods for Water Vapor Transmission of Materials*.

(7) The identified architectural and industrial maintenance coatings shall be formulated and used according to the following standards or the most current active standard of the designated standard:

(A) Reactive penetrating sealer products labeled and formulated for vehicular traffic surface chloride screening applications shall meet the performance criteria listed in the National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures;"

(B) Stone consolidants shall be specified and used in accordance with ASTM E2167-01(2008), *Standard Guide for Selection and Use of Stone Consolidants*; and

(C) Waterproofing membrane shall meet or exceed the requirements contained in ASTM C836/C836M-12, *Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course*.

Table 41a-1. VOC Content Limits for Architectural Coatings Manufactured on or after May 1, 2018

Coating Category	VOC content limit (grams per liter)
Flat coating	50

Coating Category	VOC content limit (grams per liter)
Nonflat coating	100
Nonflat-high gloss coating	150
Specialty Coating	
Aluminum roof	450
Basement specialty coating	400
Bituminous roof coating	270
Bituminous roof primer	350
Bond breaker	350
Calcimine recoater	475
Concrete curing compound	350
Concrete or masonry sealer	100
Concrete surface retarder	780
Conjugated oil varnish	450
Conversion varnish	725
Driveway sealer	50
Dry fog coating	150
Faux finishing coating	350
Fire resistive coating	350
Floor coating	100
Form-release compound	250
Graphic arts coating (sign paint)	500
High temperature coating	420
Impacted immersion coating	780
Industrial maintenance coating	250
Low solids coating	120
Magnesite cement coating	450
Mastic texture coating	100
Metallic pigmented coating	500
Multi-color coating	250
Nuclear coating	450

Coating Category	VOC content limit (grams per liter)
Pre-treatment wash primer	420
Primer, sealer and undercoater	100
Reactive penetrating sealer	350
Reactive penetrating carbonate stone sealer	500
Recycled coating	250
Roof coating	250
Rust preventive coating	250
Shellac	
Clear	730
Opaque	550
Specialty primer, sealer and undercoater	100
Stain	250
Stone consolidant	450
Swimming pool coating	340
Thermoplastic rubber coating and mastic	550
Traffic marking coating	100
Tub and tile refinish	420
Waterproofing membrane	250
Wood coating	275
Wood preservative	350
Zinc-rich primer	340

(Effective October 5, 2017)

Sec. 22a-174-42. Distributed generators

(a) **Definitions.** For purposes of this section, the following definitions shall apply:

"Certification" means documentation that a distributed generator will comply with the applicable emissions standards and certification requirements of this section when installed as supplied and operated and maintained according to the manufacturer's instructions.

"Certifying entity" means a person issuing a certification that satisfies the requirements of subsection (e) of this section.

"Combined heat and power system" or "CHP system" means a distributed generator that sequentially produces both electric power and thermal energy from a single source.

"Design system efficiency" means, for a CHP system, the sum of the full load design thermal output and electric output divided by the heat input.

"Distributed generator" means any new or existing generator with a nameplate capacity less than 15 MW that generates electricity for other than emergency use. Electricity generated may be used either on-site or for sale under an agreement with a utility, other market participant or system operator. Such a generator may also generate electricity for use during an emergency but is not defined as an emergency generator. Such a generator may burn two fuels simultaneously but is not defined as a dual-fuel generator.

"Dual-fuel generator" means a distributed generator that has the capacity to be fired by either a gaseous fuel, or a liquid fuel, such as diesel or No. 2 grade oil, but not by both a gaseous fuel and a liquid fuel simultaneously.

"Effective date" means the date on which this section is adopted in accordance with the provisions of chapter 54 of the Connecticut General Statutes.

"Emergency" means "emergency" as defined in section 22a-174-22e(a) of the Regulations of Connecticut State Agencies.

"Emergency generator" means "emergency engine" as defined in section 22a-174-22e(a) of the Regulations of Connecticut State Agencies.

"Existing" means, for a generator, installed prior to the effective date of this section.

"Flared fuel" means gases that are emitted directly into the ambient air or burned without generating electricity or useful mechanical or thermal energy.

"Gaseous fuel" means natural gas and other fossil fuels that are in a gaseous state when used to fuel a generator.

"Generator" means any equipment that converts primary fuel, including fossil fuel and renewable fuel, into electricity or electricity and thermal energy.

"Installed" means the date on which a generator is first capable of generating electricity.

"ISO" means the International Organization for Standardization.

"Motor vehicle diesel fuel" means on-road diesel fuel that meets sulfur limits in 40 CFR 80.29, 80.500(a) and 80.520(a) and (b).

"New" means, for a generator, installed on or after the effective date of this section.

"Power-to-heat ratio" means, for a CHP system, the design electrical output divided by the design recovered thermal output, where both outputs are measured in consistent units.

"Reciprocating engine" means a stationary internal combustion engine having a crankshaft turned by linearly reciprocating pistons.

"Supplier" means a person who manufactures, assembles or otherwise makes distributed generators available to owners and operators.

"System operator" means a person responsible for managing a geographical region's electric bulk power generation and transmission systems.

(b) **Applicability and exemptions.**

(1) The owner or operator of a distributed generator may operate such generator without obtaining a new source review general permit for such generator or a permit issued pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies if:

(A) The generator is an emission unit with potential emissions of fifteen (15) tons or more per year of an individual air pollutant;

(B) The generator is not a new major stationary source;

(C) The generator is not a newly constructed or reconstructed major source of hazardous air pollutants subject to the requirements of section 22a-174-3a(m) of the Regulations of Connecticut State Agencies;

(D) In any calendar year, the generator is operated no more than the number of hours determined from the following equation; and

$$\textbf{Hours of operation of a distributed generator in a given calendar year} = \frac{(0.90)\,(15\,\text{tons/year})\,(2000\,\text{lbs/ton})}{(G_c)\,(E_p)}$$

Where: G_c = generator capacity (MW)

E_p = applicable carbon monoxide emission limit of subsection (d) of this section (lbs/MWh)

(E) The owner or operator complies with all applicable provisions of this section.

(2) The owner or operator of a distributed generator may modify such generator without obtaining a new source review general permit for such generator or a permit issued pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies if:

(A) The generator is an emission unit with potential emissions of fifteen (15) tons or more per year of an individual air pollutant;

(B) At the time of modification, the generator is not authorized to operate pursuant to an individual permit issued pursuant to section 22a-174-3a or former section 22a-174-3 of the Regulations of Connecticut State Agencies;

(C) The modification is not a major modification to an existing major stationary source;

(D) In any calendar year, the generator is operated no more than the number of hours determined from the following equation; and

$$\textbf{Hours of operation of a distributed generator in a given calendar year} = \frac{(0.90)\,(15\,\text{tons/year})\,(2000\,\text{lbs/ton})}{(G_c)\,(E_p)}$$

Where:

G_c = generator capacity (MW)

E_p = applicable carbon monoxide emission limit of subsection (d) of this section (lbs/MWh)

(E) The owner or operator complies with all applicable provisions of this section.

(3) Notwithstanding subdivisions (1) and (2) of this subsection, the requirements of this section shall not apply to the owner or operator of the following generators:

(A) Any generator subject to 40 CFR 52.21;

(B) Any generator with an engine subject to 40 CFR 89, 90, 91 or 92;

(C) Any generator that is powered by a fuel cell, wind or solar energy; and

(D) Any emergency generator.

(4) A physical or operational change including installation of control equipment to an existing generator shall not result in such generator being considered a new generator pursuant to this section.

(c) **Application for an individual permit.**

(1) Nothing in this section shall preclude the commissioner from requiring an owner or operator to obtain an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies.

(2) Nothing in this section shall preclude an owner or operator from applying for an individual permit pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies, if applicable.

(d) **Emissions requirements.**

(1) No owner or operator of any existing distributed generator operating in accordance with this section shall:

(A) Cause or allow the emission of any air pollutant in excess of the emissions standards identified in Table 42-1 of this section; and

(B) Cause or allow the release of carbon dioxide into the ambient air from a stack in excess of 1900 lbs/MWh.

(2) Except as provided in subsection (d)(4) of this section, no owner or operator of any new distributed generator operating in accordance with this section shall:

(A) Cause or allow the emission of any air pollutant in excess of the applicable emissions standards identified in Table 42-2 of this section. The applicable emissions standards are those standards in effect on the date that such generator is installed; and

(B) Cause or allow the release of carbon dioxide into the ambient air from a stack in excess of:

(i) 1900 lbs/MWh, if such generator is installed on or before April 30, 2012, or

(ii) 1650 lbs/MWh, if such generator is installed on or after May 1, 2012.

(3) The particulate matter standards of Tables 42-1 and 42-2 of this section shall apply only to a distributed generator with a reciprocating engine using liquid fuel.

(4) Notwithstanding subsection (d)(2) of this section, the owner or operator of any new generator using flared fuel shall meet the standards of subsection (d)(1) of this section.

(5) The owner or operator of any distributed generator that is a dual-fuel generator shall:

(A) When such generator is fueled by a gaseous fuel, operate such generator in compliance with all applicable requirements of this section; and

(B) When such generator is fueled by a liquid fuel:

(i) Be exempt from compliance with the requirements of subsections (d)(1) and (d)(2) of this section,

(ii) Operate no more than a total of thirty (30) days per year, and

(iii) Use a fuel that complies with subsection (g)(4) of this section.

(6) To demonstrate compliance with the oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this subsection, an owner or operator shall either:

(A) Obtain a certification pursuant to subsection (e) of this section; or

(B) Conduct an initial performance test as required by subdivision (d)(7) of this section.

(7) Performance testing. A distributed generator owner or operator who has not obtained a certification for such generator pursuant to subsection (e) of this section shall conduct an initial performance test for oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide, as follows:

(A) For an existing generator, an initial performance test for oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide shall be completed no later than 180 days after the effective date of this section;

(B) For a new generator, an initial performance test for oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide shall be completed no later than 180 days after installation;

(C) Each initial performance test shall be conducted at ISO full load operating conditions, unless alternative load conditions are specified by the applicable test method;

(D) Each initial performance test shall be conducted in accordance with the following methodologies:

(i) Applicable EPA Reference Methods, California Air Resources Board methods or equivalent methods approved by the commissioner, and

(ii) For a generator with a reciprocating engine using liquid fuel, particulate matter emissions shall be tested using ISO Method 8178; and

(E) If an owner or operator of a generator for which an initial performance test is conducted modifies such generator in a manner that increases emissions of oxides of nitrogen, particulate matter, carbon monoxide or carbon dioxide, the owner or operator shall, within 180 days of completing such modification, perform a test of the generator's emissions according to the requirements for an initial performance test in subparagraphs (C) and (D) of this subdivision.

(8) Each owner or operator of an existing generator operating in accordance with this section shall achieve compliance with the applicable requirements of this section no later than 180 days after the effective date of this section. Any owner or operator of an existing generator who is unable to comply with the requirements of this section 180 days after the effective date of this section shall immediately cease operation.

(9) Each owner or operator of a new generator operating in accordance with this section shall achieve compliance with the applicable requirements of this section no later than 180 days after installation.

(10) The commissioner may order emissions testing of a generator operating in accordance with this section to verify compliance with the applicable oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this section. Such testing shall be performed using the applicable testing methods identified in this section or other methods identified by the commissioner.

Table 42-1. Emissions standards for an existing distributed generator.

Oxides of nitrogen (lbs/MWh)	Particulate matter (lbs/MWh)	Carbon monoxide (lbs/MWh)
4.0	0.7	10

Table 42-2. Emissions standards for a new distributed generator.

Date of Installation	Oxides of nitrogen (lbs/MWh)	Particulate matter (lbs/MWh)	Carbon monoxide (lbs/MWh)
On or after January 1, 2005	0.6	0.7	10
On or after May 1, 2008	0.3	0.07	2
On or after May 1, 2012	0.15	0.03	1

(e) **Distributed generator certification.**

(1) An owner or operator of any new or existing distributed generator operating in accordance with this section may satisfy compliance with the applicable oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this section by obtaining one of the following certifications:

(A) Certification by the California Air Resources Board pursuant to Title 17, sections 94200 through 94214 of the California Code of Regulations; or

(B) Certification by the generator supplier that satisfies the requirements of this subsection.

(2) A certification under subdivision (1)(B) of this subsection shall apply to a specific make and model of generator and shall include the certifying entity's statement that such make and model of generator has the ability to operate in compliance with the applicable oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this section for the lesser of the first 15,000 hours of operation or three (3) years, when such generator is installed, operated and maintained according to the manufacturer's instructions.

(3) A generator's compliance with the applicable oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this section when installed and operated for the lesser of the first 15,000 hours or three (3) years of operation shall be verifiable by emission tests performed as follows:

(A) Unless otherwise specified in this subsection, using EPA Reference Methods, California Air Resources Board methods or equivalent test methods approved by the commissioner;

(B) At ISO full load operating conditions unless alternative load conditions are specified by the applicable test methods;

(C) For a generator with a reciprocating engine using liquid-fuel, particulate matter emissions shall be tested using ISO Method 8178; and

(D) If the owner or operator of a certified generator modifies such generator from the original design in a manner that will increase emissions of oxides of nitrogen, particulate matter, carbon monoxide or carbon dioxide, within 180 days of completing such modification, the owner or operator shall either:

(i) Perform a test of the generator's emissions to demonstrate compliance with the applicable oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this section according to the requirements for an initial performance test in subsections (d)(7)(C) and (d)(7)(D) of this section, or

(ii) For a generator certified by the supplier, obtain from the supplier an amendment of the existing certification or a new certification of compliance of the modified generator.

(4) Documentation sufficient to demonstrate certification shall include:

(A) A valid supplier's certificate stating that the subject make and model of generator is capable of compliance as provided in subdivision (2) of this subsection; or

(B) A valid and effective Executive Order issued by the executive officer of the California Air Resources Board certifying compliance as required by subdivision (1)(A) of this subsection.

(5) Any owner or operator of a generator that is operating in compliance with the applicable standards of this section pursuant to a certification shall maintain such generator as prescribed by the manufacturer.

(6) The owner or operator of any generator that is certified to operate in compliance with the applicable standards of this section shall display the following statement on the nameplate of the generator or on a label in a conspicuous location attached to such generator with the following text:

"This generator is certified as meeting the applicable standards of R.C.S.A. section 22a-174-42 when maintained and operated in accordance with the manufacturer's instructions."

(7) An owner or operator of a generator that is operating in compliance with the standards of this section pursuant to a certification shall comply with all other applicable requirements of this section including, but not limited to, fuel requirements, recordkeeping and reporting.

(f) **Credit for concurrent emissions reductions.** The owner or operator of a distributed generator using flared fuel or combined heat and power, or that uses an end-use efficiency measure or operates a non-emitting resource at the same facility as a generator operating in accordance with this section may receive credit on a per pollutant basis towards compliance with the applicable oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this section according to the requirements of this subsection.

(1) Flared fuels. If a generator uses fuel that would otherwise be flared, the owner or operator may deduct the emissions that were or would have been produced through the fuel flaring from the actual emissions of the generator on a per pollutant basis, for the purposes of calculating compliance with the applicable oxides of nitrogen, particulate matter, carbon monoxide and carbon dioxide standards of this section, according to the following:

(A) Except as provided in subparagraph (B) of this subdivision, the owner or operator shall calculate emissions compliance credit for a pollutant using the default value of Table

42-3 of this section; and

(B) If the actual emissions from flaring fuel can be documented, such actual emissions may be used as the basis for calculating the emissions compliance credit, subject to the approval of the commissioner.

Table 42-3. Default emissions values (lbs/MMBtu) for use of flared fuels.

Pollutant	**Default flared gas emissions (lbs/MMBtu)**
Oxides of nitrogen	0.1
Carbon monoxide	0.7
Carbon dioxide	117

(2) Combined heat and power. The owner or operator of a CHP system may receive a compliance credit against its actual emissions on a per pollutant basis, according to the requirements of this subdivision:

(A) To be eligible for emissions credit related to thermal output, the owner or operator of a CHP system shall meet the following requirements:

(i) At least twenty percent (20%) of the fuel's total recovered energy shall be thermal and at least thirteen percent (13%) shall be electric, with a resulting power-to-heat ratio between 4.0 and 0.15, and

(ii) The design system efficiency shall be at least fifty-five percent (55%);

(B) The owner or operator of a CHP system that satisfies the requirements of subparagraph (A) of this subdivision shall calculate CHP system emissions credit on a per pollutant basis according to the following formula and the requirements of subparagraphs (C) through (E) of this subdivision:

CHP system emissions credit (lbs of pollutant/MWh of emissions) = *

Where: T = Per pollutant emission rate of the displaced thermal system (lbs/MMBtu)

F = Displaced thermal system efficiency

R = CHP system power-to-heat ratio

(C) For a pollutant, the emission rate of the displaced thermal system (T) shall be determined as follows:

(i) For a new CHP system, the emissions standards applicable to new natural gas-fired boilers in 40 CFR 60, Subparts Da, Db and Dc, as applicable, in lbs/MMBtu, and

(ii) For a CHP system that replaces an existing thermal system for which historic emission rates are documented, the lesser of the historic emission rate in lbs of pollutant/MMBtu, or the rate in Table 42-4 of this section;

Table 42-4. Maximum displaced system emissions rates for a CHP system replacing an existing thermal system.

Pollutant	**Maximum emission rate (lbs/MMBtu)**
Nitrogen oxides 0.3	0.3

Pollutant	**Maximum emission rate (lbs/MMBtu)**
Carbon monoxide	0.08
Carbon dioxide	117

(D) The efficiency of the displaced thermal system (F) shall be determined as follows:

(i) For a new system that is a boiler, 80%,

(ii) For a new system that is another process heat system, the design efficiency, unless the design efficiency of the other process heat system cannot be documented, in which case 80% shall be used, and

(iii) For a retrofit system, the historic efficiency of the displaced thermal system if:

(a) The historic efficiency can be documented, and

(b) The displaced thermal system is either enforceably shut down and replaced by the CHP system, or if its operation is measurably and enforceably reduced by the operation of the CHP system; and

(E) The emissions credit calculated for a pollutant shall be subtracted from the actual emission rate of the CHP system to produce the pollutant emission rate used for determining compliance with subsection (d) of this section.

(3) End-use efficiency and non-emitting resources. If an end-use energy efficiency and conservation measure or electricity generation that does not produce any of the emissions regulated by this section is installed and operated at a facility contemporaneous with operation of a distributed generator, then the owner or operator may submit a written request to the commissioner for approval to add the electricity savings credited to the efficiency and conservation measure or supplied by the non-emitting electricity source to the electricity supplied by the generator for the purposes of calculating compliance with the requirements of this section. In support of such a request, such owner or operator shall submit the requestor's contact information, a description of the measure that includes the installation date and the estimated lifetime, the calculation of the electricity saved or supplied, an explanation of the electricity monitoring and verification method, the amount of electricity generated by the distributed generator in the previous twelve (12) months of operation and any other information requested by the commissioner.

(g) **Fuel requirements.** The owner or operator of any distributed generator operating in accordance with this section shall use the following fuels:

(1) Any generator powered by a diesel internal combustion engine shall combust only liquid fuel that does not exceed the sulfur content of motor vehicle diesel fuel;

(2) Any gaseous fossil fuel other than natural gas combusted shall contain no more than ten grains total sulfur per 100 dry standard cubic feet;

(3) If the generator is supplied with fuel from more than one tank or if the generator and at least one other source are supplied fuel by a single fuel tank, the owner or operator shall install and operate a non-resettable fuel metering device to monitor continuously the fuel consumed by the generator's engine;

(4) The owner or operator of any distributed generator that is a dual-fuel generator shall

combust only liquid fuel that does not exceed the sulfur content of motor vehicle diesel fuel; and

(5) The owner or operator of any generator with a total capacity of 200 kW or less shall be exempt from the requirement of subdivision (3) of this subsection.

(h) **Records.**

(1) The owner or operator of any distributed generator shall maintain records of the information necessary to determine compliance with the requirements of this section including, but not limited to, the information specified in this subsection, labeling each record with the calendar date on which the record is generated. Each record shall be maintained for a period of at least five (5) years from the date the record is created at a location in Connecticut identified in the notification required pursuant to subsection (j)(1) of this section.

(2) Any emissions concentrations and parameters, measured using CEM or by stack testing, shall be recorded. Such records shall specify the pollutant or parameter measured and the units of measurement.

(3) All documents and data related to any applicable distributed generator certification pursuant to subsection (e)(4) of this section shall be recorded including documentation of certification.

(4) For the owner or operator of a distributed generator receiving credit towards compliance pursuant to subsection (f) of this section, data used to determine the credit and calculations of the credit received shall be recorded.

(5) Fuel type and use shall be recorded, as follows:

(A) Records of every fuel type and quantity used, in gallons or million cubic feet, for each month;

(B) If liquid fuel is used, records of the sulfur content for each fuel shipment received;

(C) Records of the hours of operation for each month;

(D) For a dual-fuel generator using liquid fuel, days of operation using liquid fuel; and

(E) For a generator with a fuel metering device, data generated by such device.

(6) Any one of the records identified in this subdivision shall be maintained to demonstrate the sulfur content of fuel used as required by subdivision (5)(B) of this subsection:

(A) A fuel certification for a delivery of liquid fuel from a bulk petroleum provider;

(B) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or

(C) A copy of a current contract with the fuel supplier supplying the fuel used by the generator that includes the applicable sulfur content of liquid fuel as a condition of each shipment.

(7) Each date on which maintenance is performed on the distributed generator and the type of maintenance shall be recorded.

(8) The manufacturer’s recommended maintenance procedures shall be recorded.

(9) Calendar days, times and duration of process and control equipment malfunctions, a description of each malfunction, the corrective action taken and the date and time such

action was taken shall be recorded.

(10) The test reports and supporting calculations documenting the results of any performance test to determine compliance with a standard in this section shall be recorded.

(i) **Reports and requests.**

(1) The owner or operator of any distributed generator required to make and maintain records pursuant to this section shall provide any such records, or a copy thereof, to the commissioner upon request and shall make such records available to the commissioner to inspect at the location where maintained.

(2) Any document, notification, data or record required to be submitted to the commissioner pursuant to this section shall include a certification signed by a responsible corporate officer or a duly authorized representative of such officer, as those terms are defined in section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document or record, each of whom shall examine and be familiar with the information submitted and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

(3) At least ninety (90) days before any owner or operator plans to use a method or procedure pursuant to subsections (d)(7)(D)(i), (f)(1)(B) or (f)(3) of this section, such owner or operator shall submit a request for such use to the commissioner for review and written determination to grant or deny. Such request shall include information sufficient to support the request. The commissioner may require the owner or operator to submit additional information to support such a request, which the owner or operator shall supply within fourteen (14) business days. The commissioner shall issue a written response to a submitted request granting or denying the request within thirty (30) days of receipt of complete information.

(j) **Notification of operation.**

(1) Any person intending to operate a distributed generator pursuant to this section shall submit a notification to the commissioner including, but not limited to, the following information:

(A) Legal name(s), address(es) and telephone number(s) of the generator owner and operator. If the owner or operator is a corporation or a limited partnership transacting business in Connecticut, provide the exact name as registered with the Secretary of State;

(B) Location address of the premises where the generator is located;

(C) Make and model of the generator;

(D) Maximum design gross power output of the generator;

(E) Actual dates of construction and installation of an existing generator and actual or intended dates of construction and intended date of installation of a new generator;

(F) Each fuel type used or intended to be used, including the maximum sulfur content of such fuel;

(G) Actual emissions data, if available, or the manufacturer's estimates of emissions, if available; and

(H) The location address in Connecticut where records required to demonstrate compliance with this section are maintained.

(2) For an existing generator, a notification pursuant to this subsection shall be submitted no later than thirty (30) days prior to operating under this section. For a new generator, a notification under this section shall be submitted no later than thirty (30) days prior to installation.

(3) A separate notification shall be submitted for each generator operating pursuant to this section.

(4) The notification shall be sent to the Bureau of Air Management at the following address:

Director
Division of Compliance and Field Operations
Bureau of Air Management
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

(Adopted effective January 1, 2005; Amended December 22, 2016)

Sec. 22a-174-43. Portable fuel container spillage control (Repealed)

Repealed September 10, 2012.

(Adopted effective May 10, 2004; Amended January 29, 2007; Repealed September 10, 2012)

Sec. 22a-174-44. Adhesives and sealants

(a) **Definitions.** For the purposes of this section, the following definitions shall apply:

(1) "Acrylonitrile-butadiene-styrene welding adhesive" or "ABS welding adhesive" means any adhesive intended by the manufacturer to weld acrylonitrile-butadiene-styrene pipe, which is made by reacting monomers of acrylonitrile, butadiene and styrene.

(2) "Adhesive" means any chemical compound, such as an organic polymer, that is applied for the purpose of bonding two surfaces together by other than mechanical means.

(3) "Adhesive primer" means any product intended by the manufacturer for application to a substrate, prior to the application of an adhesive, to enhance the bonding surface.

(4) "Aerosol adhesive" means an adhesive packaged as an aerosol in which the spray

mechanism is permanently housed in a non-refillable can designed for handheld application without ancillary hoses or spray equipment.

(5) "Aerospace component" means the fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including passenger safety equipment.

(6) "Architectural" means pertaining to stationary structures, including mobile homes, and their appurtenances. Appurtenances to an architectural structure include, but are not limited to, hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts and windows.

(7) "As applied" means the composition of an adhesive, sealant or primer at the time it is applied to a substrate, including any solvent, catalyst or other substance added to the as supplied adhesive, sealant or primer.

(8) "As supplied" means the composition of an adhesive, sealant or primer as sold to a retail customer. For multi-component adhesives, sealants or primers, "as supplied" means the composition after the component parts are combined as specified by the manufacturer and before the addition, at the user's initiative, of any ancillary substances.

(9) "Automotive glass adhesive primer" means an adhesive primer intended by the manufacturer to be applied to automotive glass prior to installation of the glass using an adhesive. "Automotive glass adhesive primer" improves the adhesion to the pinch weld and blocks ultraviolet light.

(10) "CARB" means the California Air Resources Board.

(11) "Ceramic tile installation adhesive" means any adhesive intended for use in the installation of ceramic tiles.

(12) "Chlorinated polyvinyl chloride welding adhesive" or "CPVC welding adhesive" means any adhesive intended for welding of CPVC plastic pipe.

(13) "Cleanup solvent" means a VOC-containing solvent used to remove a loosely held uncured adhesive or sealant from a substrate or to clean equipment used in applying an adhesive, a sealant or a primer.

(14) "Computer diskette jacket manufacturing adhesive" means any adhesive intended by the manufacturer to glue the fold-over flaps to the body of a vinyl computer diskette jacket.

(15) "Contact bond adhesive" means any adhesive that forms an instantaneous, non-repositionable bond when substrates, on which the adhesive was applied and allowed to dry, are brought together using momentary pressure. "Contact bond adhesive" does not include rubber cements that are primarily intended for use on paper substrates or vulcanizing fluids designed and labeled for tire repair only.

(16) "Cove base" means a flooring trim unit, generally made of vinyl or rubber, having a concave radius on one edge and a convex radius on the opposite edge that is used in forming a junction between the bottom wall course and the floor or in forming an inside corner.

(17) "Cove base installation adhesive" means any adhesive intended by the manufacturer

for the installation of cove base or wall base on a wall or vertical surface at floor level.

(18) "Cyanoacrylate adhesive" means any single-component reactive diluent adhesive that contains at least 85% by weight methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate.

(19) "Exempt compound" means compounds of carbon excluded from the definition of "VOC" in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(20) "Flexible vinyl" means non-rigid polyvinyl chloride plastic with at least five percent, by weight, plasticizer content.

(21) "Fiberglass" means a material made of extremely fine filaments of glass.

(22) "Indoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of finish surface wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll or artificial grass. Adhesive used to install ceramic tile or perimeter bonded sheet vinyl flooring is not "indoor floor covering installation adhesive."

(23) "Laminate" means a material made by bonding two or more sheets or layers.

(24) "Low-solids adhesive, sealant or primer" means any adhesive, sealant or primer product that contains 120 grams or less of solids per liter of product.

(25) "Marine deck sealant" or "marine deck sealant primer" means any sealant or sealant primer intended by the manufacturer for application to wooden marine decks.

(26) "Medical equipment manufacturing" means the manufacture of medical devices, such as, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators or cardiatory reservoirs.

(27) "Metal-to-elastomer molding or casting adhesive" means any adhesive intended by the manufacturer to bond metal to rubber or urethane elastomers using a heated molding or casting process in order to fabricate products.

(28) "Multipurpose construction adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including, but not limited to, dry wall, subfloor, panel, fiberglass reinforced plastic, ceiling tile or acoustical tile.

(29) "Nonmembrane roof installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of nonmembrane roofs, including, but not limited to, plastic or asphalt roof cement, asphalt roof coating or cold application cement. Adhesive intended for use in the installation of pre-fabricated single-ply roof membrane is not "nonmembrane roof installation or repair adhesive."

(30) "Outdoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use.

(31) "Panel installation" means the installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, or similar pre-decorated or non-decorated panels to studs or solid surfaces using an adhesive formulated for that purpose.

(32) "Perimeter bonded sheet vinyl flooring installation" means the installation of sheet

flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip no more than four inches wide around the perimeter of the sheet flooring.

(33) "Plastic cement welding adhesive" means any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

(34) "Plastic cement welding primer" means any primer intended by the manufacturer for use to prepare plastic substrates prior to bonding or welding.

(35) "Plasticizer" means any substance, such as a high boiling point organic solvent, that is added to a hard plastic to provide flexibility or pliability.

(36) "Polyvinyl chloride welding adhesive" or "PVC welding adhesive" means any adhesive intended by the manufacturer for use in the welding of PVC plastic pipe.

(37) "Porous material" means wood, paper, corrugated paperboard or other solid that has tiny openings, often microscopic, in which fluids may be absorbed or discharged.

(38) "Reactive diluent" means a liquid reactant in an uncured adhesive, sealant or primer that reacts chemically or physically during the curing process to become an integral part of the cured adhesive, sealant or primer.

(39) "Roadway sealant" means any sealant intended by the manufacturer for application to public streets, highways and other surfaces, including, but not limited to, curbs, berms, driveways or parking lots.

(40) "Rubber" means any natural or manmade elastomer, including, but not limited to, styrene-butadiene rubber, polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene or ethylene propylene diene terpolymer.

(41) "SCAQMD" means the South Coast Air Quality Management District, a part of the California Air Resources Board, which is responsible for the regulation of air quality in the State of California.

(42) "Sealant primer" means any product intended by the manufacturer for application to a substrate, prior to the application of a sealant, to enhance the bonding surface.

(43) "Sealant" means any material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces. Sealers and other materials that are applied to a single substrate to protect or decorate are not "sealants."

(44) "Sheet-applied rubber installation" means the process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion, inclusive of the process of laminating sheet rubber to fabric by hand.

(45) "Single-ply roof membrane" means a prefabricated single sheet of compounded synthetic material such as ethylene propylenediene monomer, polyvinyl chloride, thermal polyolefin or ketone ethylene ester that is applied in a single layer to a building roof.

(46) "Single-ply roof membrane installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of single-ply roof membrane.

(47) "Single-ply roof membrane adhesive primer" means any primer intended by the

manufacturer for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

(48) "Single-ply roof membrane sealant" means any sealant intended by the manufacturer for application to single-ply roof membrane.

(49) "Solvent" means any organic compounds that are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents or other related uses.

(50) "Structural glazing adhesive" means any adhesive intended by the manufacturer to apply glass, ceramic, metal, stone or composite panels to exterior building frames.

(51) "Surface preparation solvent" means a solvent used to remove dirt, oil and other contaminants from a substrate prior to the application of a primer, adhesive or sealant.

(52) "Thin metal laminating adhesive" means any adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic, in the production of electronic or magnetic components, in which the thickness of the bond line or lines is less than 0.25 mils.

(53) "Tire repair" means a process that includes expanding a hole, tear, fissure or blemish in a tire casing by grinding or gouging, applying adhesive and filling the hole or crevice with rubber.

(54) "Tire retread adhesive" means any adhesive intended by the manufacturer for application to the back of pre-cure tread rubber and to the casing and cushion rubber. "Tire retread adhesive" may also be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

(55) "Traffic marking tape" means preformed reflective film intended by the manufacturer for application to streets, highways and other surfaces where pavement markings are desired, including, but not limited to, curbs, berms, driveways and parking lots.

(56) "Traffic marking tape adhesive primer" means any primer intended by the manufacturer for application to a substrate prior to installation of traffic marking tape.

(57) "Twelve-month rolling aggregate" means the amount of adhesives, sealants, primers or solvents used in a twelve-month period, calculated each month by adding the current month's adhesive, sealant, primer or solvent use to the amount used in each of the previous eleven months.

(58) "Undersea-based weapons systems components" means the fabrication of parts, assembly of parts or completed units of any portion of a missile launching system used on submarines.

(59) "Waterproof resorcinol glue" means a two-part resorcinol-resin-based adhesive intended for continuous water immersion.

(b) **Applicability.**

(1) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, sells, supplies or offers for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(2) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, manufactures for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(3) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, uses or applies within the State of Connecticut, or solicits the use or application of within the State of Connecticut, any adhesive, sealant, adhesive primer or sealant primer with an applicable VOC content limit in either Table 44-1 or Table 44-2 of this section.

(c) **Exemptions and exceptions.**

(1) The requirements of this section shall not apply, except as otherwise noted, to the manufacture, sale or use of the following adhesives, sealants, adhesive primers, sealant primers or solvents:

(A) Adhesives, sealants, adhesive primers or sealant primers being tested or evaluated in any research and development, quality assurance or analytical laboratory, provided that records are maintained as specified in subsection (f)(4) of this section;

(B) Adhesives or sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and exempt compounds, as applied;

(C) Cyanoacrylate adhesives;

(D) Aerosol adhesives;

(E) Adhesives, sealants, adhesive primers or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact bond adhesives;

(F) Adhesives, sealants, adhesive primers and sealant primers that are subject to a VOC content limit in section 22a-174-40 of the Regulations of Connecticut State Agencies;

(G) Contact bond adhesives that are sold or supplied by the manufacturer or supplier in a container with a net volume of one gallon or less; or

(H) Adhesives, cleanup solvents and surface preparation solvents used in the assembly, repair and manufacture of submarines, when the use of a noncomplying adhesive or solvent is necessary to meet military performance specifications, provided that records of the use of such noncompliant adhesives or solvents are maintained in accordance with subsection (f)(1) of this section.

(2) The requirements of this section shall not apply to the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvent and cleanup solvent in the following operations:

(A) Tire repair operations, provided the label of the adhesive states "**For tire repair only**;"

(B) Assembly, repair or manufacture of undersea-based weapon systems;

(C) Assembly, repair or manufacture of aerospace components;

(D) Manufacture of medical equipment;

(E) Metal cleaning performed in accordance with section 22a-174-20(*l*) of the Regulations of Connecticut State Agencies; or

(F) Plaque laminating operations in which adhesives are used to bond clear, polyester acetate laminate to wood with lamination equipment installed prior to July 1, 1992. Any person claiming exemption pursuant to this subparagraph shall record and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(3) The provisions of this section shall not apply to the use of adhesives, sealants, adhesive primers or sealant primers at a facility if the total VOC emissions from all adhesives, sealants, adhesive primers and sealant primers used at the facility are less than 200 pounds, or an equivalent volume, per any twelve-month rolling aggregate. Emissions from cold cleaning units, vapor degreasers and aerosol products shall not be included in determining the total VOC emissions. Any person claiming exemption pursuant to this subdivision shall record and maintain monthly operational records sufficient to demonstrate continued eligibility for this exemption and in accordance with subsection (f) of this section, as applicable.

(4) The VOC content limits in Tables 44-1 and 44-2 and the requirements of subsections (d)(7) and (d)(8) of this section shall not apply to the use of any adhesives, sealants, adhesive primers, sealant primers, cleanup solvents and surface preparation solvents provided the total volume of noncomplying adhesives, sealants, primers, cleanup and surface preparation solvents applied facility-wide does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this subdivision shall record and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(5) This section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer that does not comply with the VOC content limits specified in Table 44-1 of this section provided that such manufacturer or distributor makes and keeps records demonstrating:

(A) The adhesive, sealant, adhesive primer or sealant primer is intended for shipment and use outside of the State of Connecticut; and

(B) The manufacturer or distributor has taken reasonable precautions to assure that the adhesive, sealant, adhesive primer or sealant primer is not distributed to or within the State of Connecticut.

(6) Subdivision (5) of this subsection shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any adhesive, sealant, adhesive primer or sealant primer to a retail outlet in the State of Connecticut.

(7) The VOC content limits of Table 44-1 of this section shall not apply to the sale of any adhesive, sealant, adhesive primer or sealant primer to a person using add-on air pollution control equipment to control emissions of VOC from such adhesive, sealant, adhesive primer or sealant primer at the stationary source, if the add-on air pollution control

equipment meets the requirements of subsection (d)(6) of this section.

(8) This section shall not apply to the use of any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent at a private residence for non-commercial purposes.

(9) The requirements of this section shall not apply to any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent that is distributed or transferred by a branch of the United States military to, from or within a premises operated by that branch of the United States military.

(10) The requirements of this section shall apply to the use of single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer on the following schedule:

(A) For the year 2009, from June 1 through August 31;

(B) For the years 2010 and 2011, from May 1 through September 30; and

(C) On and after January 1, 2012.

(11) The requirements of this section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant or single-ply roof membrane adhesive primer prior to January 1, 2012.

(d) **Standards.**

(1) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall sell, supply or offer for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer manufactured on or after January 1, 2009 unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(2) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall manufacture for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(3) Except as provided in subsections (c)(1) through (c)(4), (c)(7), (c)(9), (c)(10), (c)(11) and (d)(6) of this section, on or after January 1, 2009, no person shall use or apply, or solicit the use or application of, any adhesive, sealant, adhesive primer or sealant primer within the State of Connecticut unless such adhesive, sealant, adhesive primer or sealant primer as applied complies with the applicable VOC content limits specified in Table 44-1 or Table 44-2 of this section and the applicable requirements of this subsection.

(4) For adhesives, the VOC content limits of Tables 44-1 and 44-2 of this section shall apply as follows:

(A) If a person uses an adhesive subject to a specific VOC content limit in Table 44-1, such specific limit shall apply, and no limit in Table 44-2 shall apply; and

(B) If an adhesive is not listed in Table 44-1, a VOC content limit in Table 44-2 shall

apply based on the substrate bonded by the adhesive. If an adhesive is used to bond two different substrates together, the substrate assigned the higher VOC content limit shall apply to such use.

(5) Any person using adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or clean-up solvents subject to this section shall store or dispose of all absorbent materials, such as cloth or paper, which are moistened with such adhesives, sealants, primers or solvents, in non-absorbent containers that shall be closed except when placing materials in or removing materials from the container.

(6) A person using an adhesive, sealant, adhesive primer or sealant primer subject to this section may comply with the VOC content limits of Tables 44-1 and 44-2 of this section using add-on air pollution control equipment if such equipment meets the following requirements:

(A) The VOC emissions from the use of all adhesives, sealants, adhesive primers or sealant primers subject to this section are reduced by an overall capture and control efficiency of at least 85%, by weight;

(B) The combustion temperature is monitored continuously if a thermal incinerator is operated;

(C) Inlet and exhaust gas temperatures are monitored continuously if a catalytic incinerator is operated;

(D) The VOC concentration of the inlet and exhaust gas is measured continuously if a carbon absorber or control device other than a thermal or catalytic incinerator is operated; and

(E) Operational records sufficient to demonstrate compliance with the requirements of this subdivision are maintained as required by subsection (f) of this section.

(7) Any person using a surface preparation solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision for single-ply roofing, limit the VOC content of surface preparation solvent used to less than 70 grams per liter; or

(B) If a surface preparation solvent is used in applying single-ply roofing, limit the composite vapor pressure, excluding water and exempt compounds, of the surface preparation solvent used to less than or equal to 45 mmHg at 20 degrees Celsius.

(8) Any person using a cleanup solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision, limit the composite vapor pressure of a cleanup solvent to less than 45 mmHg at 20 degrees Celsius; or

(B) When cleaning spray application equipment, perform the removal of an adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment in accordance with either subparagraph (i) or (ii), as follows:

(i) In an enclosed cleaning system, or equivalent cleaning system as determined by the test method identified in subsection (e)(4) of this section, or

(ii) Using a solvent with a VOC content less than or equal to 70 grams of VOC per liter. As necessary, parts containing dried adhesive may be soaked in a solvent if the composite

vapor pressure of the solvent, excluding water and exempt compounds, is less than or equal to 9.5 mmHg at 20 degrees Celsius, and the parts and solvent are in a closed container that remains closed except when adding parts to or removing parts from the container.

(9) No person who applies or solicits the application of any adhesive, sealant, adhesive primer or sealant primer subject to this section shall add solvent to such adhesive, sealant or primer in an amount in excess of the manufacturer's recommendation for application, if such addition causes the adhesive, sealant or primer to exceed the applicable VOC content limit of this section.

(e) **Compliance procedures and test methods.**

(1) Any person who sells, supplies, offers for sale or manufactures an adhesive, sealant, adhesive primer or sealant primer subject to this section on or after January 1, 2009 for sale in the State of Connecticut shall possess documentation that such adhesive, sealant, adhesive primer or sealant primer complies with the VOC content limits of Table 44-1 of this section, where the VOC content is determined according to the requirements of subdivisions (2) and (3) of this subsection. For single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer, such documentation is required on and after January 1, 2012.

(2) The VOC content (grams per liter and percent by weight) of adhesive, sealant, adhesive primer, sealant primer and solvent products subject to this section, shall be determined according to the following calculations:

(A) For adhesives, sealants, adhesive primers and sealant primers, except for low-solids adhesives, sealants, adhesive primers and sealant primers as set out in subparagraph (C) of this subdivision, that do not contain reactive diluents, grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm - Vw - Ve}$$

Where

Ws = weight of volatile organic compounds, in grams

Ww = weight of water, in grams

We = weight of exempt compounds, in grams

Vm = volume of product, as supplied, in liters

Vw = volume of water, in liters

Ve = volume of exempt compounds, in liters;

(B) For adhesives, sealants, adhesive primers and sealant primers, except for low-solids adhesives, sealants, adhesive primers and sealant primers as set out in subparagraph (C) of this subdivision, that contain reactive diluents, the VOC content of the product is determined after curing. The grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Wrs - Wrw - Wre}{Vrm - Vrw - Vre}$$

Where
Wrs = weight of volatile organic compounds not consumed during curing, in grams
Wrw = weight of water not consumed during curing, in grams
Wre = weight of exempt compounds not consumed during curing, in grams
Vrm = volume of product, as supplied, not consumed during curing, in liters
Vrw = volume of water not consumed during curing, in liters
Vre = volume of exempt compounds not consumed during curing, in liters;

(C) For low-solids adhesives, sealants, adhesive primers and sealant primers, grams of VOC per liter of product thinned to the manufacturer's recommendation shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm}$$

Where
Ws = weight of volatile organic compounds, in grams
Ww = weight of water, in grams
We = weight of exempt compounds, in grams
Vm = volume of product, in liters; and

(D) Percent VOC by weight shall be calculated according to the following equation:

$$\%\text{VOC by weight} = \left[(Wv / W)\right] \times 100$$

Where
Wv = weight of VOCs in grams
W = weight of product in grams

(3) The following procedures shall be used to determine the properties of the specified adhesives, sealants, primers, solvents or components thereof in order to perform the calculations required pursuant to subdivision (2) of this subsection or to verify calculations based on formulation data:

(A) Except as provided in subparagraphs (C), (D) and (E) of this subdivision, the VOC and solids content of all adhesives, adhesive primers, sealants, sealant primers, surface preparation solvents and cleanup solvents shall be determined using 40 CFR 60, Appendix A, Reference Method 24, or SCAQMD Method 304;

(B) The volatile organic content of exempt organic compounds shall be determined using ASTM D4457-02 or the most current version of such test, as applicable;

(C) The VOC content of any plastic welding cement adhesive or primer shall be determined using SCAQMD Method 316A;

(D) The amount of reactive diluent in a product shall be determined using SCAQMD Method 316A;

(E) The composite vapor pressure of volatile organic compounds in surface preparation solvents and cleanup solvents shall be determined by quantifying the amount of each compound in the blend using gas chromatographic analysis (ASTM E260-96(2006) or the most current version of such test) for organics and ASTM D3792-05 or the most current version of such test, for water content, as applicable, and the following equation:

$$Ppc = \left[\sum_{i=1}^{n}(Wi)(Vpi) / Mwi\right] / \left[(Ww / Mww) + \sum_{i=1}^{n}(We / Mwe) + \sum_{i=1}^{n}(Wi / Mwi)\right]$$

Where

Ppc = VOC composite partial pressure at 20 degrees C, in mmHg

Wi = Weight of the "i"th VOC compound, in grams, as determined by ASTM E260-96(2006) or the most current version of such test

V*pi* = Vapor pressure of the "i"th VOC compound at 20 degrees C, in mmHg, as determined by subparagraph (F) of this subdivision

Mw*i* = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature

Ww = Weight of water, in grams as determined by ASTM D3792-05 or the most current version of such test

Mww = Molecular weight of water, 18 grams per g-mole

We = Weight of the "i"th exempt compound, in grams, as determined by ASTM E260-96(2006) or the most current version of such test

Mwe = Molecular weight of the "i"th exempt compound, in grams per g-mole, as given in chemical reference literature

(F) The vapor pressure of each single component compound may be determined from ASTM D2879-97(2007), or the most current version of such test, or may be obtained from any of the following sources:

(i) The most recent edition of *The Vapor Pressure of Pure Substances*, Boublik, Fried, and Hala, eds., Elsevier Scientific Publishing Company, New York,

(ii) The most recent edition of *Perry's Chemical Engineer's Handbook*, McGraw-Hill Book Company,

(iii) The most recent edition of *CRC Handbook of Chemistry and Physics*, Chemical Rubber Publishing Company,

(iv) The most recent edition of *Lange's Handbook of Chemistry*, John Dean, editor, McGraw-Hill Book Company, or

(v) Additional sources approved for this purpose by the Commissioner.

(4) The active and passive solvent losses from spray gun cleaning systems shall be determined using SCAQMD's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," dated October 3, 1989. The test solvent for this

determination shall be any lacquer thinner with a minimum vapor pressure of 105 mm of Hg at 20 degrees Celsius, and the minimum test temperature shall be 15 degrees Celsius.

(5) Control device efficiency shall be measured in accordance with 40 CFR 60 Appendix A, Reference Methods 18, 25, 25A and 25B or CARB Method 100.

(6) If the organization responsible for preparing any reference or test method identified in this subsection replaces that method with an equivalent method, then either the identified method or its replacement may be used for the purposes of this section.

(f) **Record keeping and reporting requirements.**

(1) Except if add-on air pollution control equipment is used to comply with the VOC content limits of Tables 44-1 or 44-2 of this section, as provided in subsection (d)(6) of this section, and records are maintained as required in subsection (f)(2) of this section, each person subject to this section shall maintain records of the information necessary and sufficient for the Commissioner to determine compliance with the applicable requirements of this section. Such information may include:

(A) A list of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent in use and in storage;

(B) Identification of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent by product name and description;

(C) The VOC content of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent product as supplied;

(D) The mix ratio of any catalysts, reducers or other components used;

(E) The final VOC content or vapor pressure of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent, as applied; or

(F) The monthly volume of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent used.

(2) Any person who complies with the VOC content limits of Table 44-1 or Table 44-2 of this section through the use of add-on air pollution control equipment shall record the key operating parameters for the control equipment, including but not limited to, the following information:

(A) The volume used per day of each adhesive, sealant, adhesive primer, sealant primer or solvent that is subject to a VOC content limit in Table 44-1 or Table 44-2 of this section and that exceeds such a limit;

(B) On a daily basis, the combustion temperature, inlet and exhaust gas temperatures and control device efficiency, as appropriate, pursuant to subsection (d)(6) of this section;

(C) Daily hours of control equipment operation;

(D) All maintenance performed on control equipment including the date and type of maintenance; and

(E) Records documenting that such equipment is operated in compliance with the control and capture efficiency requirement of subsection (d)(6) of this section.

(3) All records made to determine compliance with this section shall be maintained on the premises for five years from the date such record is created and shall be made available

to the Commissioner within 90 days of a request.

(4) For adhesives, sealants, adhesive primers and sealant primers subject to the laboratory testing exemption of subsection (c)(1)(A) of this section, the person conducting the testing shall make and maintain records of all such adhesives, sealants, primers and solvents used in the preparation or evaluation process, including, as appropriate, the product name, manufacturer and description.

(5) Upon written notice, the Commissioner may require any person subject to this section to report information sufficient to determine compliance with the applicable requirements of this section.

(6) Any document submitted to the Commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(g) **Container labeling.**

(1) As of January 1, 2009, each manufacturer of an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section shall display the following information on the container or label for such adhesive, sealant, adhesive primer or sealant primer:

(A) The category name of the product;

(B) A statement of the manufacturer's recommendation regarding thinning, reducing or mixing, provided:

(i) A statement is not required for thinning, reducing or mixing with water, and

(ii) If thinning prior to use is not necessary, the recommendation shall specify that the product is to be applied as supplied;

(C) The maximum or the actual VOC content as supplied, displayed in grams of VOC per liter of product; and

(D) The maximum or the actual VOC content as applied in accordance with the manufacturer's recommendation regarding thinning, reducing or mixing, displayed in grams of VOC per liter of applied product.

(2) The VOC content of an adhesive, sealant, adhesive primer or sealant primer shall be calculated using the manufacturer's formulation data or determined using the calculations, procedures and test methods in subsection (e) of this section.

(3) Any person applying an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Tables 44-1 or 44-2 of this section may rely on the manufacturer's representation on the container or label, if such product is applied as recommended for a use specified on the container or label.

Table 44-1. As Applied VOC Content Limits for Adhesives, Sealants, Adhesive Primers and Sealant Primers

Adhesive, sealant, adhesive primer or sealant primer category	As applied VOC content limit (grams VOC per liter)	Date on which standard applies
Adhesives		
ABS welding	400	January 1, 2009
Ceramic tile installation	130	January 1, 2009
Computer diskette jacket manufacturing	850	January 1, 2009
Contact bond	250	January 1, 2009
Cove base installation	150	January 1, 2009
CPVC welding	490	January 1, 2009
Indoor floor covering installation	150	January 1, 2009
Metal-to-elastomer molding or casting	850	January 1, 2009
Multipurpose construction	200	January 1, 2009
Nonmembrane roof installation or repair	300	January 1, 2009
Plastic cement welding	510	January 1, 2009
Outdoor floor covering installation	250	January 1, 2009
PVC welding	510	January 1, 2009
Single-ply roof membrane installation or repair	250	For 2009: June 1 through August 31;
		For 2010 & 2011: May 1 through September 30; and

Adhesive, sealant, adhesive primer or sealant primer category	**As applied VOC content limit (grams VOC per liter)**	**Date on which standard applies**
		On and after January 1, 2012.
Structural glazing	100	January 1, 2009
Thin metal laminating	780	January 1, 2009
Tire retread	100	January 1, 2009
Perimeter bonded sheet vinyl flooring installation	660	January 1, 2009
Waterproof resorcinol glue	170	January 1, 2009
Sheet-applied rubber installation	850	January 1, 2009
Sealants		
Architectural	250	January 1, 2009
Marine deck	760	January 1, 2009
Nonmembrane roof installation or repair	300	January 1, 2009
Roadway	250	January 1, 2009
Single-ply roof membrane	450	For 2009: June 1 through August 31;
		For 2010 & 2011: May 1 through September 30; and
		On and after January 1, 2012.
Other	420	January 1, 2009
Adhesive primers		
Automotive glass	700	January 1, 2009
Plastic cement welding	650	January 1, 2009
Single-ply roof membrane	250	For 2009: June 1 through August 31;
		For 2010 & 2011: May 1 through September 30; and
		On and after January 1, 2012.
Traffic marking tape	150	January 1, 2009

Adhesive, sealant, adhesive primer or sealant primer category	As applied VOC content limit (grams VOC per liter)	Date on which standard applies
Other	250	January 1, 2009
Sealant primers		
Non-porous architectural	250	January 1, 2009
Porous architectural	775	January 1, 2009
Marine deck	760	January 1, 2009
Other	750	January 1, 2009

Table 44-2. As Applied VOC Content Limits for Adhesives Applied to the Listed Substrate

Substrate	As applied VOC content limit (grams VOC per liter)
Flexible vinyl	250
Fiberglass	200
Metal	30
Porous material	120
Rubber	250
Other substrates	250

(Adopted effective October 3, 2008; Amended April 2, 2025)

Sec. 22a-174-45—22a-174-99. Reserved

Indirect Sources of Air Pollution

Sec. 22a-174-100. Permits for construction of indirect sources (Repealed)

Repealed September 10, 2012.

(Effective August 1, 1983; Amended June 30, 2006; Repealed September 10, 2012)

Sec. 22a-174-101—22a-174-199. Reserved

Sec. 22a-174-200. Deactivation of air pollution control systems or mechanisms from motor vehicles

(a) "Air pollution control system or mechanism" means a system or mechanism installed on a motor vehicle for the purpose of reducing emissions of carbon monoxide, exhaust

hydrocarbons, evaporative hydrocarbons, or oxides of nitrogen. The term includes, but is not limited to, mechanisms such as positive crankcase ventilation (PCV) systems; exhaust-gas-recirculation systems; choke control systems; air preheating systems; spark-advance-control systems; air injection systems or bleeds to either exhaust or intake manifolds; parts which regulate air-fuel ratios for fuel-injection or carburetion systems; fuel vapor collection and recycling systems for fuel tanks, carburetors, air filters, and other points of fuel vapor loss; catalytic converters; and any other systems or mechanisms referred to in the technical literature of the vehicle manufacturer by the terms "air pollution device," "emission control system," or similar designation.

(Effective August 1, 1983)