Sec. 22a-449(d)-101. Technical standards and corrective action requirements for owners and operators of underground storage tank systems-program scope and interim prohibition

(a) **Applicability and purpose of sections 22a-449 (d)-101 through 22a-449 (d)-113.**

(1) The requirements of sections 22a-449 (d)-101 through 22a-449 (d)-113 shall apply to all owners and operators of an UST system, as defined in section 22a-449 (d)-101 (d), except as otherwise provided in subdivisions (a) (2), (a) (3), and (a) (4) of section 22a-449 (d)-101. Any UST system listed in subdivision (a) (3) of section 22a-449 (d)-101 shall meet the requirements in subsection (b) of section 22a-449 (d)-101. Any UST system listed in subparagraphs (a) (2) (C), (a) (2) (D), (a) (2) (E) and (a) (2) (F) and in subparagraphs (a) (3) (C), (a) (3) (D), and (a) (3) (E) of section 22a-449 (d)-101 which is used for the storage, transmission or dispensing of oil or petroleum liquids, as defined in section 22a-449 (d)-1 (a) of the Regulations of Connecticut State Agencies ("RCSA"), shall meet the requirements of section 22a-449 (d)-1.

(2) The following UST systems are excluded from the requirements of section 22a-449 (d)-101 through section 22a-449 (d)-113 of these regulations:

(A) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances;

(B) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 402 or 307 (b) of the Clean Water Act;

(C) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks;

(D) Any UST system whose capacity is 110 gallons or less;

(E) Any UST system that contains a de minimis concentration of regulated substances; and

(F) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(3) Deferrals. Sections 22a-449 (d)-102, 103, 104, 105, and 107 do not apply to any of the following types of UST systems:

(A) Wastewater treatment tank systems;

(B) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011 and following);

(C) Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50, appendix A;

(D) Airport hydrant fuel distribution systems; and

(E) UST systems with field-constructed tanks.

(4) Deferrals. Section 22a-449 (d)-104 does not apply to any UST system that stores fuel solely for use by emergency power generators, provided however that the owner and operator of any such UST system shall comply with the requirements of subsection 22a-449 (d)-1 (i) if the nominal capacity of such system, exclusive of piping, is greater than or equal to two thousand one hundred (2,100) gallons.

(5) Purpose. The purpose of sections 22a-449(d)-101 to 22a-449(d)-113 of the

Regulations of Connecticut State Agencies is to establish a comprehensive regulatory program for underground storage tanks containing regulated substances subject to Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, and the regulations adopted thereunder at 40 CFR Parts 280 and 281.

(b) **Interim prohibition for deferred UST systems.**

(1) No person may install an UST system listed in subparagraph (a) (3) of section 22a-449 (d)-101 for the purpose of storing regulated substances unless the UST system (whether of single- or double-wall construction):

(A) Shall prevent releases due to corrosion or structural failure for the operational life of the UST system;

(B) Is cathodically protected against corrosion, constructed of noncorrodible material, steel clad with a noncorrodible material, or designed in a manner to prevent the release or threatened release of any stored substance; and

(C) Is constructed or lined with material that is compatible with the stored substance.

(2) Notwithstanding subdivision (b) (1) of section 22a-449 (d)-101, an UST system without corrosion protection may be installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators shall maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank.

(3) The National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," may be used as guidance for complying with subdivision (b) (2) of section 22a-449 (d)-101.

(c) **General.**

Nothing in sections 22a-449 (d)-101 through 22a-449 (d)-113 of these regulations shall affect the Commissioner's authority to enforce statutes, regulations, permits or orders administered, adopted or issued by the Commissioner, including, but not limited to, the Commissioner's authority to issue an order to prevent or abate pollution and potential source of pollution.

(d) **Definitions.**

When used in sections 22a-449 (d)-101 to 22a-449 (d)-113, inclusive of these regulations, the following terms shall have the meanings given below:

(1) "Abandoned" means rendered permanently closed and unfit for use, in accordance with subsection 22a-449 (d)-107 (b) of these regulations;

(2) "Abnormal loss or gain" means an apparent loss or gain in liquid exceeding 0.5 percent of (1) the volume of product used or sold by the owner or operator during any seven consecutive day period, or (2) the volumetric capacity of the tank or container; whichever is greater, as determined by reconciliation of inventory measurements made in accordance with section 22a-449 (d)-104 of these regulations;

(3) "Aboveground release" means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the above-ground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system;

(4) "Ancillary equipment" means any devices including, but not limited to, such devices

as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST;

(5) "Approved training program" means a Class A, B, or C Operator training program that meets the requirements of subsection 22a-449 (d)-108 (b) of the Regulations of Connecticut State Agencies.

(6) "Belowground release" means any release to the subsurface of the land and to ground water. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank;

(7) "Beneath the surface of the ground" means beneath the ground surface or otherwise covered with earthen materials;

(8) "Cathodic protection" is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current;

(9) "Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons shall have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems;

(10) "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended;

(11) "CFR" means the Code of Federal Regulations revised as of July 1, 1991, unless otherwise specified;

(12) "Class A Operator" means the individual or individuals designated by the owner or operator to have primary statutory and regulatory responsibility for the operation and maintenance of the UST systems. The Class A Operator may hold more than one class of operator position. The designation as a 'Class A Operator' does not confer any other operator status upon the individual. Any person designated as a Class A Operator shall have fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108.

(13) "Class B Operator" means the individual or individuals designated by the owner or operator to implement applicable regulatory requirements and implement the daily aspects of the operation, maintenance, and recordkeeping for the UST systems. The Class B Operator may hold more than one class of operator position. The designation as a 'Class B Operator' does not confer any other operator status upon the individual. Any person designated as a Class B Operator shall have fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108.

(14) "Class C Operator" means the individual or individuals designated by the owner or operator to have primary responsibility for responding to alarms, emergencies presented by releases, and other problems associated with the operation of the UST systems. The Class C Operator may hold more than one class of operator position. The designation as a 'Class

C Operator' does not confer any other operator status upon the individual. Any person designated as a Class C Operator shall have fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108.

(15) "Commissioner" means the Commissioner of Environmental Protection of the State of Connecticut, or the Commissioner's operator;

(16) "Compatible" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST;

(17) "Connected piping" means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them;

(18) "Consumptive use with respect to heating oil" means consumed on the premises;

(19) "Corrosion expert" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person shall be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks;

(20) "Day" means calendar day, unless otherwise specified;

(21) "Department" or "DEP" means the Connecticut Department of Energy and Environmental Protection or DEEP* (*Public Act 11-80, effective July 1, 2011, established the Department of Energy and Environmental Protection as the successor agency to the Department of Environmental Protection);

(22) "Dielectric material" means a material that does not conduct direct electrical current.

Dielectric coatings are used to electrically isolate UST systems from the surrounding soils.

Dielectric bushings are used to electrically isolate portions of the UST system including, but not limited to, tank from piping;

(23) "Discharge" means the emission of any water, substance or material into the waters of the state, whether or not such substance causes pollution;

(24) "Dispenser" means equipment located above ground that meters the amount of regulated substances transferred to a point of use outside the UST system, such as a motor vehicle;

(25) "Double-walled underground storage tank" has the same meaning as provided in section 22a-449o(1) of the Connecticut General Statutes;

(26) "Double-walled underground storage tank system" means one or more double-walled underground storage tanks connected by double-walled piping and utilizing double-walled piping to connect the underground storage tank to any associated equipment;

(27) "Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical

cable;

(28) "Excavation zone" means the volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation;

(29) "Existing tank system" means a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before December 22, 1988. Installation is considered to have commenced if:

(a) The owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and if,

(b)

(1) Either a continuous on-site physical construction or installation program has begun; or,

(2) The owner or operator has entered into contractual obligations-which cannot be canceled or modified without substantial loss-for physical construction at the site or installation of the tank system to be completed within a reasonable time;

(30) "Failure" means a condition which can or does allow the uncontrolled passage of liquid into or out of an UST system, and includes but is not limited to a discharge to the waters of the state without a permit issued pursuant to Section 22a-430 of the General Statutes;

(31) "Farm tank" is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank shall be located on the farm property. "Farm" includes fish hatcheries, rangeland and nurseries with growing operations;

(32) "Flow-through process tank" is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process;

(33) "Free product" refers to a regulated substance that is present as a non-aqueous phase liquid including, but not limited to, liquid not dissolved in water;

(34) "Gathering lines" means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations;

(35) "Hazardous substance" means a substance defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, but does not include any substance regulated as a hazardous waste under subsection (c) of Section 22a-449 of the General Statutes or any mixture of such substances and petroleum;

(36) "Hazardous substance UST system" means an underground storage tank system that contains a hazardous substance defined in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 but not including any substance regulated as a hazardous waste under subtitle C of the Resource Conservation and Recovery Act or any mixture of such substances and petroleum, and which is not a petroleum UST system;

(37) "Heating oil" means petroleum that is No. 1, No. 2, No. 4-light, No. 4-heavy, No.

5-light, No. 5-heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces;

(38) "Hydraulic lift tank" means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices;

(39) "Implementing agency" means the Connecticut Department of Energy and Environmental Protection* (*Public Act 11-80, effective July 1, 2011, established the Department of Energy and Environmental Protection as the successor agency to the Department of Environmental Protection);

(40) "Life expectancy" means the period of time within which a failure is not expected to occur as determined in accordance with section 22a-449 (d)-111;

(41) "Life expectancy determination" means the evaluation of an UST system component in accordance with section 22a-449 (d)-111 to determine its life expectancy;

(42) "Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream;

(43) "Maintenance" means the normal operational upkeep to prevent an underground storage tank system from releasing product;

(44) "Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine;

(45) "New piping containment sump" means the sump housing a turbine pump or piping that distributes petroleum or regulated substances that (A) prevents any liquids that may accumulate in such containment sump, including but not limited to, liquid from the piping or pump, from leaving the containment sump and reaching soil, groundwater or surface waters; (B) is capable of immediate visual inspection and provides immediate access to the components of such sump and the components contained therein; (C) contains release detection equipment, such as a sensor, that at all times is capable of detecting any liquid that may accumulate in such containment sump, including but not limited to, liquid from the turbine pump or piping; and (D) contains an alarm or other device that notifies the owner or operator immediately whenever a liquid accumulates in the containment sump;

(46) "New tank system" means a tank system that shall be used to contain an accumulation of regulated substances and for which installation has commenced after December 22, 1988, including UST systems that are moved from one location to another. (See also "Existing Tank System");

(47) "New under-dispenser containment sump" means a containment sump located underneath a dispenser that (A) prevents any liquids that may accumulate in such containment sump, including but not limited to, liquid from the dispenser, from leaving the containment sump and reaching soil, groundwater or surface waters; (B) is capable of immediate visual inspection and provides immediate access to the components of such sump

and any components contained therein; (C) contains release detection equipment, such as a sensor, that at all times is capable of detecting any liquid that may accumulate in such containment sump, including but not limited to, liquid from the dispenser; and (D) contains an alarm or other device that notifies the owner or operator immediately whenever a liquid accumulates in the containment sump:

(48) "Noncommercial purposes with respect to motor fuel" means not for resale;

(49) "On the premises where stored with respect to heating oil" means UST systems located on the same property where the stored heating oil is used;

(50) "Operational life" refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed under section 22a-449 (d)-107 of these regulations;

(51) "Operator" means any person in control of, or having responsibility for, the daily operation of the UST system. An Operator designation is not equivalent to designation as a "Class A Operator", "Class B Operator", or "Class C Operator", as defined in this section, solely by virtue of such designation. An Operator may be designated as a Class A, B, or C Operator only if that person has fulfilled the training and certification requirements of an approved training program as set forth in section 22a-449(d)-108 of the Regulations of Connecticut State Agencies;

(52) "Operator Response Guidelines" means guidelines that are in written form, including reporting procedures for releases and suspected releases, emergency contact phone numbers, malfunctioning equipment lock-out/tag-out and notification procedures, and initial mitigation protocol for releases, suspected releases and other emergencies;

(53) "Overfill release" is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment;

(54) "Owner" means the person or municipality in possession of or having legal ownership of an UST system;

(55) "Person" means an individual, trust, firm, joint stock company, Federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States Government;

(56) "Petroleum UST system" means an underground storage tank system that contains petroleum or a mixture of petroleum with de minimis quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, used oils and any bio-fuel blend;

(57) "Pipe or piping" means a hollow cylinder or tubular conduit that is constructed of non-earthen materials;

(58) "Pipeline facilities (including gathering lines)" are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings;

(59) "Regulated substance" means:

(a) Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C of the Resource, Conservation and Recovery Act), and (b) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7

pounds per square inch absolute). The term "regulated substance" includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, used oils and any bio-fuel blend;

(60) "Release" means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into ground water, surface water or subsurface soils;

(61) "Release detection" means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it;

(62) "Repair" means to restore a tank or UST system component that has caused a release of product from the UST system;

(63) "Residential tank" is a tank located on property used primarily for dwelling purposes;

(64) "SARA" means the Superfund Amendments and Reauthorization Act of 1986;

(65) "Septic tank" is a water-tight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility;

(66) "Storm-water or wastewater collection system" means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance;

(67) "Substantial modification" means the construction or installation of any addition to an UST system or any restoration or renovation of an UST system which: increases or decreases the on-site storage capacity of the UST system; significantly alters the physical configuration of the UST system; or impairs or improves the physical integrity of the UST system or its monitoring system; or modifies the UST system so as to comply with the standards specified in subsection 22a-449 (d)-102 (a) of these regulations;

(68) "Surface impoundment" is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well;

(69) "Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials including, but not limited to, concrete, steel, and plastic that provide structural support;

(70) "Under-dispenser containment sump" means a containment sump located underneath a dispenser whose purpose is to prevent liquids that may accumulate in such containment sump, including but not limited to, liquid from the dispenser, from leaving the containment sump or from reaching the soil, groundwater or surface waters;

(71) "Underground area" means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor;

(72) "Underground release" means any belowground release;

(73) "Underground storage facility" means a parcel of real property on which a UST or UST system is located;

(74) "Underground storage tank or UST" means any one or combination of tanks (including underground pipes connected thereto) that is used or designed to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

(a) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

(b) Tank used for storing heating oil for consumptive use on the premises where stored;

(c) Septic tank;

(d) Pipeline facility (including gathering lines) regulated under:

(1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.), or

(2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.), or

(3) Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in paragraph (d) (1) or (d) (2) of this definition;

(e) Surface impoundment, pit, pond, or lagoon;

(f) Storm-water or wastewater collection system;

(g) Flow-through process tank;

(h) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(i) Storage tank situated in an underground area including, but not limited to, a basement, cellar, mineworking, drift, shaft, or tunnel if the storage tank is situated upon or above the surface of the floor. The term "underground storage tank" or "UST" does not include any pipes connected to any tank which is described in paragraphs (a) through (i) of this definition;

(75) "Underground storage tank system or UST system" means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any;

(76) "Upgrade" means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overfill controls to improve the ability of an underground storage tank system to prevent the release of product;

(77) "Wastewater treatment tank" means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

(78) The following terms are defined as provided in section 22a-449 (d)-1 of these regulations: "liquid"; "listed"; "NFPA 30"; and "temporarily out-of-service."

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