

State of Connecticut

## **REGULATION**

of the

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NAME OF AGENCY:

Department of Energy and Environmental Protection

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### **Concerning**

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SUBJECT MATTER OF REGULATION:

**Adoption of Sections 22a-153-1 through 22a-153-150, inclusive; and  
 Repeal of Sections 19-24-1 to 19-24-14, inclusive, Sections 19-25a-1 through 19-25a-5, inclusive, and Sections 19-25d-1 through 19-25d-11, inclusive,  
 of the**

**Regulations of Connecticut State Agencies**

**Use and Control of Radioactive Materials; Civil Penalties**

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**Section 1. The Regulations of Connecticut State Agencies are amended by adding sections 22a-153-1 to 22a-153-150, inclusive, as follows:**

### **PART A – RADIOACTIVE MATERIAL**

**(NEW) Section 22a-153-1. Radioactive Materials.**

**(a) Applicability.**

- (1) This section, except as otherwise specifically provided, applies to all persons who use, produce, transport, store, possess or dispose of radioactive materials within the state of Connecticut.
- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission (NRC).

**(b) Requirements.**

- (1) Any person in possession or control of radioactive material shall obtain a license for such radioactive materials in accordance with regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes.
- (2) The regulations contained in 10 CFR 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 150, 170 and 171, as may be amended from time to time, are incorporated by reference with the exceptions set forth in Table 1.0 of this section.
- (3) Any person subject to this section shall comply with the applicable requirements of 10 CFR 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 150, 170 and 171 with the exceptions set out in Table 1.0 of this section.

Table 1.0 – Incorporation by Reference of 10 CFR 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 70, 71, 150, 170 and 171 with Exceptions.

10 CFR	Title	Exceptions	Applicable Connecticut Regulation
19	Notices, instructions and reports to workers: inspection and investigations.	Sections 19.4; 19.5; 19.8; 19.11(a)(4), (b) and (e); 19.14(a); 19.30 and 19.40 are not incorporated. In 10 CFR. 19.3, the portion of the definition of “regulated entities” related to applicants for or holders of standard design approval under subpart E of part 52 or a standard design certification under subpart B is not incorporated.	No applicable Connecticut Regulation.
20	Standards for protection against radiation	Sections 20.1006; 20.1009; 20.1405(b); 20.1406(b); 20.1905 (g); 20.2203(c); 20.2206(a)(1), (3), (4), (5) and (6); 20.2401 and 20.2402 are not incorporated.	22a-153-20 Standards for Protection Against Radiation.
30	Rules of general applicability to domestic licensing of byproduct material.	Sections 30.5, 30.6, 30.8, 30.21(c), 30.34(d) and (e)(1) and (3), 30.41(b)(6), 30.55, 30.63 and 30.64 are not incorporated. Paragraph 2 of the definition of “commencement of construction” and paragraph 9(ii) of the definition of “construction” in section 30.4 are not incorporated. In 10 CFR 30.10(b), the reference to 10 CFR 2 relating to deliberate misconduct is replaced with Sections 22a-158c and 22a-6b of the Connecticut General Statutes. In 10 CFR 30.50(c)(1), a reference to “NRC Operations Center” means “Department” as defined in subsection (c) of this section.	22a-153-30 Rules of general applicability to licensing of radioactive materials.
31	General domestic licenses for byproduct material.	Sections 31.4, 31.22 and 31.23 are not incorporated. In 10 CFR 31.5(c)(7), the phrase “part 110” is replaced by “10 CFR part 110.	22a-153-31 General licenses for radioactive material.
32	Specific domestic licenses to manufacture or transfer certain items containing byproduct material.	Sections 32.1(c)(1), 32.8, 32.11, 32.12, 32.14, 32.15, 32.16, 32.18, 32.19, 32.20, 32.21, 32.21a, 32.22, 32.23, 32.25, 32.26, 32.27, 32.28, 32.29, 32.30, 32.31 and 32.32 are not incorporated.	No applicable Connecticut Regulation.

33	Specific domestic licenses of broad scope for byproduct material.	Sections 33.8, 33.21 and 33.23 are not incorporated.	No applicable Connecticut Regulation.
34	Licenses for industrial radiography and radiation safety requirements for industrial radiographic operations.	Sections 34.5, 34.8, 34.121 and 34.123 are not incorporated.	No applicable Connecticut Regulation.
35	Medical use of byproduct material.	Sections 35.8, 35.11(c)(1), 35.13(a)(1), 35.4001 and 35.4002 are not incorporated.	22a-153-35 Medical Use of Byproduct Material.
36	Licenses and radiation safety requirements for irradiators.	Sections 36.5, 36.8, 36.91, 36.93 and the words “common defense and security” in the definitions for “Commencement of Construction” and “Construction” in 10 CFR 36.2 are not incorporated.	22a-153-36 Licenses and Radiation Safety Requirements for Irradiators.
37	Physical protection of category 1 and category 2 quantities of radioactive material.	Sections 37.3(b)(2), 37.13, 37.73(d) and (e), 37.107 and 37.109 are not incorporated.	No applicable Connecticut Regulation.
39	Licenses and radiation safety requirements for well logging.	Sections 39.5, 39.8, 39.101 and 39.103 are not incorporated.	No applicable Connecticut Regulation.
40	Domestic licensing of source material.	Sections 40.6, 40.8, 40.12(b), 40.13(c)(5)(iv), 40.23, 40.27, 40.28, 40.31(j), (k), (l), (m) , 40.32(d), (e) and (g), 40.33, 40.38, 40.41(d), (e)(1) and (3) (g) and (h), 40.51(b)(6), 40.52, 40.53, 40.56, 40.64, 40.66, 40.67, 40.81, 40.82 and 10 CFR Part 40 Appendix A Criterion 11 A—F and Criterion 12 are not incorporated. Paragraph 2 of the definition of “commencement of construction” and paragraph 9(ii) of the definition of “construction” in section 40.4 are not incorporated. The definitions of “Foreign Obligation and “Reconciliation” are not incorporated.	22a-153-40 Licensing of source material.
61.55 61.56 61.57	Licensing Requirements for Land Disposal of Radioactive Waste.	Sections 61.1, 61.3 through 61.54, 61.58 through 61.84 are not incorporated.	No applicable Connecticut Regulation.

70	Domestic licensing of special nuclear material.	Sections 70.1(c), (d) and (e), 70.5, 70.6, 70.8, 70.13, 70.14, 70.20a, 70.20b, 70.21(a)(1), (c), (f), (g) and (h), 70.22(b), (c), (f), (g), (h), (i), (j), (k), (l), (m) and (n), 70.23(a)(6), (7), (8), (9), (10), (11) and (12) and (b), 70.23a, 70.24, 70.25(a)(1), 70.31(c), (d) and (e), 70.32(a)(1), (4), (5), (6) and (7), 70.32(b)(1), (3) and (4), (c), (d), (e), (f), (g), (h), (i), (j) and (k), 70.37, 70.40, 70.42(b)(6), 70.44, 70.50(d), 70.51(c), 70.52, 70.55(c)(1), (2) and (3), 70.59, 70.60, 70.61, 70.62, 70.64, 70.65, 70.66, 70.72, 70.73, 70.74, 70.76, 70.82, 70.91, 70.92 and 10 CFR Part 70 Appendix A are not incorporated. Paragraph 2 of the definition of “commencement of construction” and paragraph 9(ii) of the definition of “construction” in section 70.4 are not incorporated.	22a-153-70 Licensing of special nuclear material.
71	Packaging and transportation of radioactive material.	Sections 71.2, 71.6, 71.11, 71.14(b), 71.19, 71.31, 71.33, 71.35, 71.37, 71.38, 71.39, 71.41, 71.43, 71.45, 71.51, 71.55, 71.59, 71.61, 71.63, 71.64, 71.65, 71.70, 71.71, 71.73, 71.74, 71.75, 71.77, 71.85(a),(b), and (c), 71.91(b), 71.99, 71.100, 71.101 (c)(2), (d) and (e), 71.107, 71.109, 71.111, 71.113, 71.115, 71.117, 71.119, 71.121, 71.123 and 71.125 are not incorporated. The definitions of “certificate holder” and “certificate of compliance (CoC)” in section 71.4 are not incorporated. The term “applicant” when used in 10 CFR Part 71 is not incorporated.	22a-153-71 Transportation of licensed material.
150.1 150.2 150.3 150.11 150.20	Exemptions and continued regulatory authority in Agreement States and in offshore waters under section 274.	Sections 150.4 through 150.10, 150.14 through 150.19, 150.21 through 150.33 are not incorporated. The definitions of “Foreign Obligations” and “Reconciliation” in section 150.3 are not incorporated.	22a-153-150 Reciprocal Recognition of Licenses.
170	Fees for facilities, materials, import and export licenses, and other regulatory services under the Atomic Energy Act of 1954, as amended.	Sections 170.2(d), 170.2(e), 170.2(g) through 170.2(p), 170.2(r), 170.2(t), 170.4, 170.5, 170.8, 170.11(a)(1) through (3), 170.11(a)(5) through (12), 170.12(c)(1), 170.12(c)(3), 170.12(d) through 170.12(f), 170.21 and 170.51 are not incorporated. The following categories of materials licenses and types of fees are also not incorporated from 10 CFR 170.31 and 171.16: 1.A, 1.B, 1.E, 1.F, 2.A.(1), 2.A.(2)(a) – 2.A.(2)(e), 2.A.(3), 2.A.(4), 2.C, 3.D, 3.H, 4.A, 9, 10, 11, 12, 13, 15, 17 and 18.	22a-153-6 Fees.
171	Annual fees for reactor licenses and fuel cycle licenses and materials	Sections 171.8, 171.9, 171.11(b)(2), 171.11(d), 171.13, 171.15, 171.16(a)(1)(v), 171.17(a), 171.19, 171.23 and 171.25 are not incorporated.	22a-153-6 Fees.

	licenses, including holders of certificates of compliance, registrations, and quality assurance program approvals and government agencies licensed by the NRC.	The following categories of materials licenses and types of fees are also not incorporated from 10 CFR 170.31 and 171.16: 1.A, 1.B, 1.E, 1.F, 2.A.(1), 2.A.(2)(a) – 2.A.(2)(e), 2.A.(3), 2.A.(4), 2.C, 3.D, 3.H, 4.A, 9, 10, 11, 12, 13, 15, 17 and 18.	
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- (3) Availability and interpretation of referenced material.
- (A) This section incorporates by reference certain sections of 10 CFR relating to the implementation and the administration of Chapter 446a of the Connecticut General Statutes, inclusive of future amendments of such sections.
- (B) Copies of the relevant sections of 10 CFR incorporated by reference in this section are available at [www.nrc.gov](http://www.nrc.gov) or by contacting:
- Connecticut Department of Energy & Environmental Protection  
Bureau of Air Management  
Radiation Division  
79 Elm Street  
Hartford, Connecticut 06106  
(860) 424-3029
- (4) To reconcile differences between sections 22a-153-1 through 22a-153-150, inclusive, of the Regulations of Connecticut State Agencies, and the incorporated sections of Federal regulations, the following words and phrases shall be substituted for the language of 10 CFR:
- (A) With the exception of 10 CFR 30.4, 70.10, 70.19(a)(1), 70.19(c)(3), 40.4 and in the definition of Special Nuclear Material in 10 CFR 20.1003, a reference to “NRC” or “Commission” means the commissioner of the Connecticut Department of Energy and Environmental Protection;
- (B) A reference to “NRC or agreement state” means the Connecticut Department of Energy and Environmental Protection, NRC, or agreement state;
- (C) The definition of “sealed source” means radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions that are likely to be encountered in normal use and handling;
- (D) The information identified below shall be submitted as follows:
- (i) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Connecticut Department of Energy and Environmental Protection after agreement state status is in effect, and, for NRC licenses, to the NRC until agreement state status is in effect,
- (ii) Criminal history records required by 10 CFR 37.27 shall be sent to the NRC,

and

- (iii) Communications and reports concerning regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes and applications filed in response to such regulations shall be addressed to the Connecticut Department of Energy & Environmental Protection, Bureau of Air Management, Radiation Division, 79 Elm Street, Hartford, Connecticut 06106;
- (E) Instructions in 10 CFR to use forms of the NRC means to use forms of the Department, which will be available on the Department website at <https://portal.ct.gov/deep> or available upon request from the Department at 79 Elm St., Hartford, CT 06106;
- (F) In 10 CFR 30.18(d), 30.32(g), 31.5(b)(1)(ii), 31.5(c)(3)(ii), 31.5(c)(8)(i), 31.6, 31.7(a), 31.10(a), 31.10(b)(1), 31.12(c)(4), 32.13, 32.51(c), 32.56, 32.59, 32.72(b)(5)(ii), 40.13(c)(10), 40.22(e), 40.25(b), 40.25(d)(3), 40.54, 40.55(c), (c)(1), (d)(1)(ii), (d)(2) and (d)(3), where a reference is made to “an Agreement State”, it means “an Agreement State or the NRC”;
- (G) In 10 CFR 31.6, where the words “any non-agreement state” or “offshore waters” are used, substitute the words “State of Connecticut”;
- (H) In 10 CFR 40.4, the definition of “Byproduct Material” includes NORM;
- (I) In 10 CFR 40.4, in the definition of “Special Nuclear Material”, the sentence “and any other material which the Commission, pursuant to the provisions of section 51 of the Act, determines to be special nuclear material” remains preserved;
- (J) In 10 CFR 40.10, the reference to 10 CFR 2, relating to deliberate misconduct, is replaced with section 22a-6b of the Connecticut General Statutes and section 22a-158c of the Connecticut General Statutes;
- (K) In 10 CFR 40.4, the terms “Foreign Obligations” and “Reconciliation” are not incorporated. In 10 CFR 40.4, the phrase “and any other material which the Commission, pursuant to the provision of section 51 of the Act, determines to be special nuclear material” is preserved without change;
- (L) In 10 CFR 40.10(b), the reference to 10 CFR 2 subpart B is replaced with Sections 22a-6b and 22a-158 of the Connecticut General Statutes;
- (M) Notwithstanding subparagraph (D) of this subdivision, reference to written reports in 10 CFR 40.60 means “Written reports shall be sent to: Connecticut Department of Environmental Protection, Bureau of Air Management, Radiation Division, 79 Elm Street, Hartford, Connecticut 06106”;
- (N) In 10 CFR 70.10, the reference to 10 CFR 2 is replaced with Sections 22a-6b and 22a-158c of the Connecticut General Statutes;
- (O) In 10 CFR 70.19(a)(1) and 10 CFR 70.19(c)(3), the meaning of the terms “Commission” or “Atomic Energy Commission” is preserved and shall not be replaced with “Department”;

- (P) In 10 CFR 70.4, in the definition of “Special nuclear material”, the phrase “and any other material which the Commission, pursuant to the provisions of section 51 of the Act, determines to be special nuclear material” is preserved;
- (Q) In 10 CFR 70.42(b)(1), the word “Department” means the “US Department of Energy”;
- (R) In 10 CFR 70.50(c), preparation and submission of reports, all communications are to be made to the Connecticut Department of Energy & Environmental Protection, Bureau of Air Management, Radiation Division, 79 Elm Street, Hartford, Connecticut 06106, and by telephone at 860-424-3333 for immediate and 24-hour reports;
- (S) In 10 CFR 71, Subpart H, the terms “Certificate of Compliance,” “certificate holder,” and “applicant for CoC” apply only to the NRC;
- (T) In 10 CFR 71.17(c)(3), the submission required before the first use of an NRC approved package shall be sent to the NRC, ATTN: Document Control Desk, Director, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards, using an appropriate method listed in 10 CFR 71.1(a), the licensee’s name and license number and the package identification number specified in the package approval;
- (U) In 10 CFR 71.101(c)(1), using an appropriate method listed in § 71.1(a), each licensee shall file a description of its quality assurance program, including a discussion of which requirements of this subpart are applicable and how they will be satisfied, by submitting the description to: Connecticut Department of Energy & Environmental Protection, Bureau of Air Management, Radiation Division, 79 Elm Street, Hartford, Connecticut 06106; and
- (V) In 10 CFR 150.20, where the words:
  - (i) “non-agreement states”, “areas of exclusive federal jurisdiction within agreement states”, or “offshore waters” are used in (a)(1)(i), (ii), (iii), (b), (b)(3), and (b)(4), substitute the words “the State of Connecticut”,
  - (ii) “agreement state license” are used, substitute “agreement state license or Nuclear Regulatory Commission license”,
  - (iii) “license issued by an agreement state” are used, substitute “license issued by an agreement state or the Nuclear Regulatory Commission”, and
  - (iv) “license from an agreement state” are used, substitute “license from an agreement state or the Nuclear Regulatory Commission.”

**(c) Definitions.**

The definition of any term in this subsection applies to any such term as used in any regulation concerning the Radiation Materials Program adopted pursuant to section 22a-153 of the Connecticut General Statutes. Any term used in such regulations that is not defined in this subsection shall be as defined or described in 10 CFR 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 150, 170 and 171:

- (1) "By-product material" or “byproduct material” has the same meaning as “by-product material” as provided in section 22a-151 of the Connecticut General Statutes.



- (2) “Calendar quarter” means not less than twelve (12) consecutive weeks nor more than fourteen (14) consecutive weeks. The first calendar quarter of each year shall begin on January 1 and subsequent calendar quarters shall be so arranged such that no day is included in more than one calendar quarter and no day in any one year is omitted from inclusion within a calendar quarter.
- (3) “CFR” means the Code of Federal Regulations.
- (4) “Commissioner” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.
- (5) “Decommissioning plan” means a written document that includes the licensee’s planned procedures and activities for decommissioning of a facility or site.
- (6) “Department” means the Connecticut Department of Energy and Environmental Protection.
- (7) “Facility” means the location within one building, vehicle, or under one roof and under the same administrative control at which:
- (A) The possession, use, processing or storage of radioactive material is or was authorized; or
  - (B) One or more radiation-producing machines or radioactivity-inducing machines are installed or located.
- “Facility” includes multiple such locations at a site or part of a site.
- (8) “General license” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.
- (9) “Healing arts” has the same meaning as provided in Section 20-1 of the Connecticut General Statutes.
- (10) “Inspection” means an official examination or observation including, but not limited to, tests, surveys, and monitoring to determine compliance by a licensee with applicable regulations, orders, requirements and conditions of the commissioner.
- (11) “Megabecquerel” or “MBq” means one million becquerels, an SI unit of activity where one becquerel is equal to 1 disintegration per second or one transformation per second of radioactive material.
- (12) “Milliroentgen” or “mR” means one thousandth of a roentgen (R), the special unit of exposure which one roentgen is equals 2.58E-4 coulombs per kilogram of air.
- (13) “Naturally occurring radioactive material” or “NORM” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.
- (14) “Patient” means a person or animal subject to examination, diagnosis or treatment within the healing arts.
- (15) “Person” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.
- (16) “Radioactive material” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.



- (17) “Radioactivity” means the transformation of unstable atomic nuclei by the emission of radiation.
- (18) “Specific license” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.
- (19) “Source material” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.
- (20) “Special nuclear material” has the same meaning as provided in section 22a-151 of the Connecticut General Statutes.
- (21) “Waste” or “low-level waste” means radioactive waste that is: (A) Neither high-level waste nor transuranic waste, nor spent nuclear fuel, nor byproduct material, as defined in Section 11e(2) of the Atomic Energy Act of 1954, as amended; and (B) Classified by the federal government as low-level waste, consistent with existing law, but does not include waste generated as a result of atomic energy defense activities of the federal government, as defined in the Low-Level Radioactive Waste Policy Act, Public Law 96-573, or federal research and development activities.
- (22) “Year” means the twelve-month period beginning January 1, unless the starting date is otherwise specified in a regulation or license.

**(NEW) Sec. 22a-153-2. Compliance Monitoring**

**(a) Applicability.**

- (1) This section applies to all persons who use, produce, transport, store, possess or dispose of radioactive materials within the state of Connecticut.
- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

**(b) Records.**

Licensees shall maintain records showing the receipt, transfer and disposal of radioactive material as described in 10 CFR 30.51.

**(c) Inspections and investigations.**

- (1) The commissioner may conduct inspections and investigations of facilities and regulated activities as necessary to demonstrate compliance with regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes.
- (2) Licensees shall maintain records required by this section and shall make such records available for inspection by the Commissioner at a permanent site or facility identified in a license issued under section 22a-153-30 of the Regulations of Connecticut State Agencies.
- (3) The commissioner may take the following actions with respect to licensees:
  - (A) Access books, papers, documents and other records and physical evidence pertinent to a matter under inspection or investigation;
  - (B) Require a licensee to make reports and furnish information; and

- (C) Enter the premises of a licensee for the purpose of investigation or inspection of radioactive materials and the premises and facilities where radioactive materials are used or stored, as necessary to ascertain compliance with regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes and to protect health, safety and the environment.
- (4) The commissioner may conduct additional follow-up inspections and investigations if violations were noted at the time of the original inspection, or if a person presents information, or circumstances arise, which give the commissioner reason to believe that the health and safety of a person is threatened or that regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes are violated.
- (d) **Tests.** Licensees, upon instruction from the Department, shall perform, or permit the commissioner to perform, reasonable tests as the commissioner deems appropriate or necessary including, but not limited to, tests of:
  - (1) Radioactive materials;
  - (2) Facilities in which radioactive materials are used or stored;
  - (3) Radiation detection and monitoring instruments; or
  - (4) Other equipment and devices in connection with utilization or storage of licensed radioactive materials.
- (e) The commissioner may issue, modify or revoke any order to correct or abate any violation of sections 22a-148 to 22a-158 of the Connecticut General Statutes, inclusive, including any license issued pursuant to such sections and any regulation adopted pursuant to such sections. Any such order may include remedial measures that are necessary to correct or abate such violations.

**(NEW) Sec. 22a-153-3. Prohibitions, Restrictions and Additional Requirements.**

**(a) Applicability.**

- (1) This section applies to all persons who produce, transport, store, possess or dispose of radioactive materials within the state of Connecticut.
- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

**(b) Sale of radioactive materials.**

No person shall sell or offer for sale within the State of Connecticut radioactive materials unless such radioactive materials meet the requirements of regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes.

**(c) Human use.**

No person shall use radioactive materials on humans unless such person is licensed to practice healing arts by the State of Connecticut pursuant to Title 20 of the Connecticut General Statutes.

**(d) Vacating facilities.**

A licensee shall notify the Department in writing of intent to vacate at least 90 days before vacating or relinquishing possession or control of facilities which may have been contaminated with radioactive material as a result of the licensee's activities. When deemed necessary by the Department, the licensee shall decontaminate the facilities as the Department may specify.

**(e) Improper use of a monitoring device.**

The deliberate exposure of, failure to use, or improper use of, an individual monitoring device or area monitoring device by an individual is prohibited.

**(NEW) Sec. 22a-153-4. Exemptions.****(a) Applicability.**

- (1) This section applies to all persons who use, produce, transport, store, possess or dispose of radioactive materials within the state of Connecticut.
- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

**(b) Compliance; Granting Exemptions.**

Each person who uses, produces, transports, stores, possesses or disposes of radioactive materials within the state of Connecticut is required to comply with the regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes, except as specified in section 22a-148(c)(2) of the Connecticut General Statutes, or where, pursuant to section 22a-154(b) of the Connecticut General Statutes, the commissioner, upon application therefore or upon the commissioner's own initiative, grants an exemption upon a finding that it does not constitute a significant risk to occupational and public health and safety.

**(c) Exemptions.**

The following sources, uses and types of users are exempt from regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes:

- (1) Federal government agencies;
- (2) Excreta from individuals undergoing medical diagnosis or therapy with radioactive materials;
- (3) A material, product or use specifically exempted from licensing requirements by the NRC, the Department or an agreement state or authorized for distribution to persons exempt from license requirements; and
- (4) Other sources of radioactive material, upon a finding that such radioactive material does not constitute a significant risk to occupational and public health and safety.

**(NEW) Sec. 22a-153-5. Enforcement****(a) Applicability.**

- (1) This section applies to all persons who use produce, transport, store, possess or dispose of radioactive materials within the state of Connecticut.
- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

**(b) Violations.**

- (1) If an inspection indicates that a person is not in compliance with the requirements of regulations adopted pursuant to section 22a-153 of the Connecticut General Statutes, the commissioner shall notify such person in writing regarding any violations.
- (2) The written notice of violation may include specific required corrective actions necessary for the regulated entity to take to regain compliance and may include interim corrective actions, such as requiring further investigation of the circumstances giving rise to the notice or ceasing use of radioactive materials until full compliance is restored, or such other action deemed necessary by the commissioner to protect the public health and safety is completed.
- (3) If the commissioner determines that an enforcement action is appropriate, or if timely and satisfactory compliance with a notice issued pursuant to subdivision (1) of this subsection has not been achieved, the Department shall issue a notice of violation in writing.

**(NEW) Sec. 22a-153-6. Fees.****(a) Incorporation by reference.**

In addition to the requirements incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a person subject to this section shall comply with the requirements of this section.

**(b) Applicability.**

- (1) This section applies to any person who is an applicant for or holder of a radioactive material license issued under section 22a-153-30 of the Regulations of Connecticut State Agencies.
- (2) For the purpose of this subsection, radioactive materials under the same administrative control in a single building are licensed as a single facility. Radioactive materials under the same administrative control at the same address or in a contiguous group of buildings may be licensed as a single facility if the Commissioner determines that it is appropriate.

**(c) Radioactive materials fees.**

- (1) Except as provided in subdivision (7) of this subsection, annual license fees for radioactive material shall be those set forth in 10 CFR 171 and other radioactive materials fees as described in 10 CFR 170.

- (A) No refund shall be made if a license is terminated or suspended.
- (B) If, by amendment or otherwise, a license changes to another fee category, the fee for the new category will take effect on the anniversary date of the license.
- (2) An initial application for a license shall be accompanied by a check payable to the Department in accordance with the fees set forth in 10 CFR 170 and 10 CFR 171. Thereafter, the commissioner shall issue an annual fee invoice in accordance with the appropriate fee schedule at least two months prior to the license expiration. Fees shall be paid by the last day of the license expiration month as shown on the license fee invoice. This subdivision shall not apply to full cost recovery licenses.
- (3) An application for a reciprocal recognition of a license shall be accompanied by a check payable to the Department in accordance with the fees set forth in 10 CFR 170 and 10 CFR 171.
- (4) The Department shall not accept an initial application for a license or reciprocal recognition of a license prior to payment of the fees required by subdivisions (2) and (3) of this subsection.
- (5) If a license involves more than one of the categories incorporated in subdivision (2) of this subsection, the highest applicable fee applies.
- (6) Special provisions for calculating annual fees during agreement state transition period.
  - (A) The annual fees for the NRC licenses that are transferred to the State of Connecticut on the date the State of Connecticut becomes an agreement state shall be invoiced on the license's next anniversary date.
  - (B) During the first year after the date the Department attains agreement state status, the annual fee for each NRC license transferred to the State of Connecticut shall be prorated, based on the schedule of fees in 10 CFR 171, for the period from the date agreement state status is attained until the license's next anniversary date, in addition to the amount assessed for the year following the license's anniversary date.
- (7) A Connecticut state agency or Connecticut state university shall pay an annual license fee of zero dollars.

**(NEW) Sec. 22a-153-7. Other Radioactive Material.**

- (a) **Applicability.**
- (1) This section applies to any person who uses, produces, transports, stores, possesses, or disposes of any radioactive material within the state of Connecticut not defined as "byproduct material", "source material", or "special nuclear material" unless such person is subject to licensing for such material in another regulation adopted pursuant to section 22a-153 of the Connecticut General Statutes.

- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

**(b) Registration requirements.**

No radioactive material subject to the requirements of this section shall be received, possessed, used, transferred, owned or disposed of within the state of Connecticut unless registered with the commissioner.

**(c) Exempt quantities and items containing radioactive material.**

The quantities and items containing radioactive material identified in this subsection are exempt from the registration requirement of (b) of this section:

- (1) Any quantity of radioactive material determined by the NRC or an agreement state to be an "exempt quantity" or any item determined by the NRC or an agreement state to be an "exempt item" as set out in 10 CFR 30.11 to 30.22;
- (2) The production, transportation, storage, use and disposal of naturally occurring radioactive material of equivalent specific radioactivity not exceeding the specific radioactivity of natural potassium (857 picocurie per gram or 31.72 becquerel per gram; NCRP Report No. 160, 2009);
- (3) The operation of equipment that is not intended to produce radiation as a primary purpose and that, by nature of design, does not produce radiation at the point of nearest approach in quantities sufficient to produce radiologic damage to a person. Such equipment shall include: time pieces, instruments, novelties or devices containing self-luminous elements, and equipment that does not produce radiation greater than one-half milliroentgen per hour at any readily accessible point five centimeters from the surface, except as follows:
  - (A) Equipment identified in this subdivision shall not be exempt if it is used or handled in such a manner that any individual might receive a radiation dose exceeding one-tenth of the limits established in 10 CFR 20.1201;
  - (B) The production testing or production servicing of equipment identified in this subdivision shall not be exempt; and
  - (C) The manufacture or repair of self-luminous elements shall not be exempt;
- (4) The transportation of any radioactive material in conformity with regulations of the United States Department of Transportation or other agency of the federal government having jurisdiction; or
- (5) Not more than 0.1 microcuries (0.1  $\mu$ Ci) of any one or any combination of any unsealed source of radioactive materials other than alpha emitting byproduct material exempt in subdivisions (1) through (4) of this subsection.

**(NEW) Sec. 22a-153-8 through 22a-153-19. Reserved.**

**(NEW) Sec. 22a-153-20. Standards for Protection Against Radiation.****(a) Incorporation by reference.**

In addition to the requirements incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a person subject to this section shall comply with the requirements of this section.

**(b) Applicability**

This section applies to all persons licensed by the commissioner to use, produce, transport, store, possess or dispose of radioactive materials within the state of Connecticut.

**(c) Radiological criteria for an unrestricted use.**

A site shall be considered acceptable for unrestricted use as described in 10 CFR 20.1402, except that 19 millirem (0.19 millisievert) per year shall be substituted for 25 millirem (0.25 millisievert).

**(d) Effect of incorporation of 10 CFR 20.1403 “Criteria for license termination under restricted conditions.”**

(1) The commissioner shall not terminate a license under restricted conditions as provided for in 10 CFR 20.1403 until the decommissioning plan required by 10 CFR 20.1403(d) is approved by the commissioner and has been in effect for a period of time demonstrating to the commissioner that continued implementation of the plan will be effective in maintaining compliance with the required conditions of the plan.

(2) The commissioner may choose to implement the license termination process in one or more of the following steps:

- (A) The license is amended to authorize activities necessary to begin decommissioning under the decommissioning plan;
- (B) After decommissioning activities are complete and the provisions of 10 CFR 20.1403 are in effect under the decommissioning plan, the license may be amended to end authorization of licensed activities. The license shall remain in effect for up to five years; and
- (C) At the end of the period prescribed in subdivision (1) of this subsection, the commissioner shall decide the effectiveness of the established decommissioning plan. If the decommissioning plan has demonstrated the ability to maintain compliance with 10 CFR 20.1403, the license will be terminated subject to the revisitation provision of 10 CFR 20.1401(c) regarding new evidence of a significant threat to health and safety. Otherwise, the licensee shall be directed by the commissioner to take corrective actions as necessary to conform to 10 CFR 20.1403, and the process shall revert back to subparagraph (B) of this subdivision.

(3) In each reference to 10 CFR 20.1403 in this subsection, 19 millirem (0.19 millisievert) per year shall be substituted for 25 millirem (0.25 millisievert) in 10 CFR 20.1403(b) and (d)(1)(i)(A).



**(e) Reports of leaking or contaminated sealed sources.**

If any test for leakage or contamination required by sections 22a-153-1 through 22a-153-150, inclusive, of the Regulations of Connecticut State Agencies indicates a sealed source is leaking or contaminated, a report of the test shall be filed within five days with the Department describing the equipment involved, the test results and the corrective action taken.

**(NEW) Sec. 22a-153-21 through 22a-153-29. Reserved.**

**(NEW) Sec. 22a-153-30. Rules of General Applicability to Licensing of Radioactive Materials.**

**(a) Incorporation by reference.**

(1) In addition to the requirements incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a person subject to this section shall comply with the requirements of this section. Written reports referenced in 10 CFR 30.50(c)(2) shall be sent to: Connecticut Department of Energy & Environmental Protection, Bureau of Air Management, Radiation Division, 79 Elm Street, Hartford, Connecticut 06106.

(2) On the date the State of Connecticut becomes an agreement state as published in the Federal Register, a person who possesses a general or specific license issued by the NRC for source, byproduct or special nuclear material in quantities not sufficient to form a critical mass, is deemed to possess a like license issued under this section. The license shall expire on the earlier of 90 days after receipt from the Department of a notice of expiration of the license, or the date of expiration specified in the NRC license.

**(b) Applicability.**

(1) This section applies to any person who is required to obtain or who possesses a specific license issued by the commissioner.

(2) This section shall apply to the incorporation of other existing licenses into a new license application.

**(c) Filing applications for specific license.**

(1) An application for a specific license shall be accompanied by the fee required under section 22a-153-6 of the Regulations of Connecticut State Agencies.

(2) An application, amendment, or renewal of a specific license will be processed in a timely manner in accordance with section 22a-6p of the Connecticut General Statutes.

**(d) Renewal of licenses.**

(1) An application for renewal of a specific license shall be filed under this section.

(2) If a renewal application is filed prior to 30 days before the expiration of a license, the existing license shall not expire until written notice has been given by the commissioner of the commissioner's action on the renewal application.

**(e) Transfer of radioactive material.**

- (1) The requirements of 10 CFR 30.41 apply to NORM.
- (2) The commissioner may withdraw, limit or qualify the commissioner's acceptance of a specific license or equivalent licensing document issued by another agency, or product distributed under the licensing document, upon determining that the action is necessary as provided in section 22a-154(b) of the General Statutes of Connecticut.

**(NEW) Sec. 22a-153-31. General Licenses for Radioactive Material.****(a) Incorporation by reference.**

In addition to the requirements incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a person subject to this section shall comply with the requirements of this section.

**(b) Applicability.**

- (1) This section applies to all persons who possess and use byproduct material under a general license issued by the commissioner for ownership of byproduct material within the state of Connecticut.
- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

**(c) Certain measuring, gauging or controlling devices.**

- (1) In addition to the requirements of 10 CFR 31.5 as incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a general licensee subject to registration under 10 CFR 31.5(c)(13)(i) or possessing general licensed devices containing 37 Megabecquerels (37 MBq) or one millicurie (mCi) or more of accelerator-produced material, as determined on the date of manufacture, or 3.7 Megabecquerels (3.7 MBq) or one tenth of a millicurie (0.1 mCi) or more of radium-226 shall perform the actions identified in subdivision (2) of this subsection.

- (2) A general licensee shall:
  - (A) Conduct a physical inventory every six months to account for all sources or devices, or both, received and possessed under this section; and
  - (B) Maintain the physical inventory records for three years from the date of each inventory.

**(d) Portable devices containing general licensed material.**

- (1) A person who initiates acquisition, transfer, or disposal of a portable device containing general licensed material shall notify the commissioner within 15 days of the action. Sending a portable device for calibration, maintenance, or source replacement does not constitute transfer.
- (2) Portable devices containing general licensed material shall only be used by or under the direct supervision of individuals who have been instructed in the operating and emergency procedures necessary to ensure safe use.

- (3) For each individual that the licensee permits to use a portable device containing general licensed material, the licensee shall maintain a record showing the type of device use permitted and the basis, such as training certificates, for that authorization. An individual's record shall be kept for at least three years after the individual terminates association with the licensee.
- (4) Portable devices containing general licensed material shall be secured from access by unauthorized personnel whenever an individual authorized to use the device is not immediately present or in close proximity to the portable device.
- (5) The licensee shall maintain a current sign out log at the permanent storage location of the portable device containing general licensed material. Log entries shall be available for inspection by the Department for three years from the date of entry. The following information shall be recorded for each portable device containing general licensed material:

- (A) The model and serial number of the device;
- (B) The name of the assigned user; and
- (C) The locations and dates of use.

- (6) Emergency instructions shall accompany each portable device containing general licensed material removed from the facility.

**(e) Incidental radioactive material produced by a particle accelerator.**

- (1) A general license is issued to possess radioactive material produced incidentally to the operation of a particle accelerator. The general license is also subject to the applicable provisions of this section and sections 22a-153-1 and 22a-153-20 of the Regulations of Connecticut State Agencies, and 10 CFR 19.
- (2) A licensee may transfer radioactive material only under section 22a-153-20 and section 22a-153-71 of the Regulations of Connecticut State Agencies.
- (3) A licensee may dispose of radioactive material only with the commissioner's approval.

**(NEW) Sec. 22a-153-32 through Sec. 22a-153-33. Reserved.**

**(NEW) Sec. 22a-153-34. Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations.**

**(a) Incorporation by reference.**

In addition to the requirements incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a person subject to this section shall comply with the requirements of this section.

**(b) Applicability.**

- (1) This section applies to any person issued a license by the commissioner that authorizes the licensee to use sealed sources containing byproduct material in industrial radiography.

- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

(c) **Prohibitions.**

No licensee using sealed sources containing byproduct material for industrial radiography shall use such sealed sources for diagnosis or therapy on humans or animals.

**(NEW) Sec. 22a-153-35. Medical Use of Byproduct Material.**

(a) **Incorporation by reference.**

In addition to the requirements incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a person subject to this section shall comply with the requirements of this section.

(b) **Applicability.**

- (1) This section applies to any person authorized in a license issued by the commissioner for the medical use of byproduct material within the state of Connecticut.
- (2) This section shall not apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission.

(c) **Authorization for calibration, transmission and reference sources**

Notwithstanding the incorporation by reference of 10 CFR 35.65, a licensee authorized for medical use of radioactive materials shall not receive, possess or use radium in total quantity of .37 megabecquerels (.37 MBq) or ten microcuries (10  $\mu$ Ci), or more for check, calibration, transmission and reference use except as specifically authorized by the commissioner.

**(NEW) Sec. 22a-153-36 to 22a-153-149. Reserved.**

**(NEW) Sec. 22a-153-150. Reciprocal Recognition of License.**

(a) **Incorporation by Reference.**

In addition to the requirements incorporated by reference in section 22a-153-1 of the Regulations of Connecticut State Agencies, a person subject to this section shall comply with the requirements of this section.

(b) **Applicability.**

This section applies to any person authorized to use radioactive material under a valid specific license issued by the NRC or another agreement state who will conduct activities authorized in such licensing in the state of Connecticut.

(c) **Licenses of Byproduct, Source, and Special Nuclear Material in Quantities Not Sufficient to Form a Critical Mass.**

- (1) Any person who holds a specific license from the NRC or another Agreement State that was issued by an agency having jurisdiction where the licensee maintains an office for directing the licensed activity and at which radiation safety records are

normally maintained, is hereby granted a general license to conduct the activities authorized in such licensing document within the state of Connecticut for a period not in excess of 180 days in any calendar year provided that:

- (A) The license does not limit the activity authorized by such document to specified installations or locations;
- (B) The out-of-state licensee notifies the commissioner in writing at least three days prior to engaging in such activity. Such notification shall indicate the location, period, and type of proposed possession and use within the state of Connecticut and shall be accompanied by a copy of the pertinent license. If, for a specific case, the three-day period would impose an undue hardship on the out-of-state licensee, the licensee may, upon application to the Department, obtain permission to proceed sooner. The commissioner may waive the requirement for filing additional written notifications during the remainder of the calendar year following the receipt of the initial notification from a person engaging in activities under the general license provided in this subsection;
- (C) The out-of-state licensee complies with all applicable regulations of the commissioner and with all the terms and conditions of the license;
- (D) The out-of-state licensee supplies such other information as the commissioner may request; and
- (E) The out-of-state licensee shall not transfer or dispose of radioactive material possessed or used under the general license provided in this subdivision except by transfer to a person:
  - (i) Specifically licensed by the commissioner or by the NRC or another Agreement State to receive such material, or
  - (ii) Exempt from the requirements for a license for such material under 10 CFR 30.14.

(2) Notwithstanding subdivision (1) of this subsection, any person who holds a specific license issued by the NRC or an Agreement State authorizing the holder to manufacture, transfer, install, or service a device described in 10 CFR 40.22, 10 CFR 31.5(a), 10 CFR 31.6, and 10 CFR 31.9 within areas subject to the jurisdiction of the licensing body is hereby granted a general license to install, transfer, demonstrate, or service such a device in the state of Connecticut provided that:

- (A) Such person shall file a report with the commissioner within 30 days after the end of each calendar quarter in which any device is transferred to or installed in the state of Connecticut. Each such report shall identify each general licensee to whom such device is transferred by name and address, the type of device transferred, and the quantity and type of radioactive material contained in the device;
- (B) The device has been manufactured, labeled, installed, and serviced in accordance with applicable provisions of the specific license issued to

such person by the NRC or an Agreement State;

- (C) Such person shall assure that any labels required to be affixed to the device under regulations of the authority which licensed manufacture of the device bear a statement that "Removal of this label is prohibited"; and
  - (D) The holder of the specific license shall furnish to each general licensee to whom the licensee transfers such device or on whose premises the licensee installs such device a copy of the general license contained in 10 CFR 31.5 or in equivalent regulations of the agency having jurisdiction over the manufacture and distribution of the device.
- (3) The commissioner may withdraw, limit, or qualify the commissioner's acceptance of any specific license or equivalent licensing document issued by the NRC or an Agreement State, or any product distributed pursuant to such licensing document, upon determining that such action is necessary in order to prevent undue hazard to public health and safety or property.

**Sec. 2. Section 22a-6b-3 of the Regulations of Connecticut State Agencies is amended to read as follows:**

As used in the department's Administrative Civil Penalty Regulations[,] :

- (1) "100-Year Floodplain" means that area that is identified as the 100-year flood limit or the 100-year flood boundary or the special flood hazard areas inundated by the 100-year flood on a map developed by FEMA and adopted by the municipality wherein the area is located;
- (2) "Administrative civil penalty" means a penalty calculated in accordance with the department's Administrative Civil Penalty Regulations;
- (3) "Approval" means an approval issued by the commissioner of any document or action required or allowed by a permit or order issued by him, or of any document or action required by regulation or statute;
- (4) "Careless disregard" means a situation in which a person acts with reckless indifference to at least one of three things: (1) the existence of a requirement, (2) the meaning of a requirement, or (3) the applicability of a requirement. "Careless disregard" occurs when a person is unsure of the existence of a requirement, the meaning of a requirement or the applicability of a requirement to a situation, but the person engages in conduct that the person knows may cause a violation, without first ascertaining whether a violation would occur.
- (5) "Category 1 quantity of radioactive material" has the same meaning as provided in 10 CFR 37.5.
- (6) "Category 2 quantity of radioactive material" has the same meaning as provided in 10 CFR 37.5.

[(4)](7) "Coastal resources" means "coastal resources" as defined in section 22a-93 of the Connecticut General Statutes;

[(5)](8) "Commissioner" means "commissioner" as defined in subsection (b) of section 22a-2 of the Connecticut General Statutes;

[(6)](9) "Connecticut natural diversity data base" means the data base defined in section 23-73 of the Connecticut General Statutes;

[(7)](10) "Consumptive use" means any withdrawal from or removal of the waters of the state;

[(8)](11) "Department" means the Connecticut Department of Environmental Protection;

[(9)](12) "Diversion" means diversion as defined in section 22a-367 of the Connecticut General Statutes;

[(10)](13) "FEMA" means the Federal Emergency Management Agency;

[(11)](14) "Flood fringe" means any portion of the 100-year floodplain that is not located within the floodway;

[(12)] (15) "Floodway" means that area that is identified as the floodway on a map developed by FEMA and adopted by the municipality wherein the area is located;

[(13)] (16) "General permit" means a general permit issued by the commissioner under section 22a-45a, 22a-208a, 22a-349a, 22a-361, 22a-378a or 22a-411 of the Connecticut General Statutes;

[(14)](17) "Hearing officer" means "hearing officer" as defined in section 4-166 of the Connecticut General Statutes;

(18) "Impacts the Commissioner's Ability to Perform a Regulatory Function" means a situation in which the Commissioner is prevented from using appropriate regulatory tools to address noncompliance because the Commissioner is unaware that the noncompliance exists.

[(15)] (19) "Inland water resources" means those wetlands and water resources that are regulated under sections 22a-36 through 22a-45a, sections 22a-342 through 22a-349a, sections 22a-365 through 22a-379, and sections 22a-401 through 22a-411 of the Connecticut General Statutes;

[(16)] (20) "Inland wetlands" means "wetlands" as defined in section 22a-38 of the Connecticut General Statutes;



[(17)] (21) "Legal requirement" means any provision of a statute, regulation, license, order or approval issued, entered, adopted or administered by the commissioner;

[(18)] (22) "License" means "license" as defined in section 4-166 of the Connecticut General Statutes;

[(19)] (23) "Order" means "order" as defined in section 22a-3a-2 of the Regulations of Connecticut State Agencies, and includes a penalty notice;

[(20)] (24) "Penalty notice" means a notice issued by the commissioner pursuant to subsection (c) of section 22a-6b of the Connecticut General Statutes, and includes an amended penalty notice;

[(21)] (25) "Permit" means a permit issued by the commissioner under Chapter 439, 440, 441, 446i, or 446j of the Connecticut General Statutes and includes a certificate of permission, a certificate of approval pursuant to section 22a-405 of the Connecticut General Statutes, a temporary authorization or emergency authorization pursuant to section 22a-6k of the Connecticut General Statutes, and a general permit;

[(22)] (26) "Person" [means "person" as defined] shall have the same meaning as provided in section 22a-2 of the Connecticut General Statutes, except that for purposes of determining civil penalties related to violations of chapter 446a, "person" shall have the same meaning as provided in section 22a-151 of the Connecticut General Statutes;

[(23)] (27) "Rare, threatened or endangered species" means any species determined by the commissioner in regulations adopted under section 26-306 of the Connecticut General Statutes to be endangered, threatened, or species of special concern;

[(24)] (28) "Referee" means an individual appointed by the Director of the Office of Adjudications to conduct a settlement conference in a department proceeding. Such individual may be an employee of the department;

[(25)] (29) "Respondent" means a person to whom or which an order is issued;

[(26)] (30) "Staff" means "staff" as defined in section 22a-3a-2(a) of the Regulations of Connecticut State Agencies;

[(27)] (31) "Tidal wetlands" mean "wetland" as defined in section 22a-29 of the Connecticut General Statutes;

[(28)] (32) "Violation" means a failure to comply with a legal requirement;

[(29)] (33) "Waters" means "waters" as defined in section 22a-423 of the Connecticut General Statutes;

[(30)] (34) "Water Quality Standards" means the standards of water quality adopted or amended by the commissioner under section 22a-426 of the Connecticut General Statutes;

[(31)] (35) "Watercourses" means "watercourses" as defined in section 22a-38 of the Connecticut General Statutes; and

[(32)] (36) "Wetlands" means "inland wetlands" and "tidal wetlands".

**Sec. 3. Subsection (c) of section 22a-6b-8 of the Regulations of Connecticut State Agencies is amended by adding subdivision (4) as follows:**

(NEW)

(4) Violations related to Sources of Ionizing Radiation.

- (A) Each distinct violation of sections 22a-148 to 22a-162a, inclusive, of the Connecticut General Statutes, or of any regulation, order or permit administered or issued thereunder, or of an order administered or issued under section 16a-105, 22a-6 or 22a-7 of the Connecticut General Statutes to enforce any provision of section 16a-104 or sections 22a-148 to 22a-162a, inclusive, of the Connecticut General Statutes or a regulation or permit administered or issued thereunder, shall first be evaluated in terms of the actual or potential for harm to human health and welfare or the environment using each of the sub-factors listed in Tables 4A and 4B of this subdivision. The applicable category of harm for each sub-factor is the highest category that corresponds to the characteristics of the distinct violation. The actual or potential for harm of such violation shall be the highest category of harm identified in the sub-factor analysis.
- (B) The gravity-based penalty component for each distinct violation shall comprise the following:
  - (i) A gravity-based penalty for the first day of violation, which is determined by first locating the penalty from the appropriate subcell in the penalty matrix in Table 4C,
  - (ii) A gravity-based penalty for each day the violation continued beyond the first day, up to a maximum of one-hundred-eighty days thereafter, which is equal to either: Twenty-five percent of the first day gravity-based penalty for each day such violation continued provided the violation commenced on or prior to one year prior to the date of issuance of the penalty notice; or, if the violation commenced within one year prior to the date of issuance of the penalty notice, one-hundred percent of the first day gravity-based penalty for each day such violation continued, up to a maximum of thirty days, and twenty-five percent of such first day penalty for each additional day thereafter. If the violation commenced prior to the effective date of these regulations, the first day of violation shall be the

- first day such violation continued after such effective date, and
- (iii) At the sole discretion of the Commissioner, a gravity-based penalty for each day the violation continued for more than one-hundred-eighty-one (181) days, provided such violation has caused high or very high harm to public health and safety or the environment. The amount of such gravity-based penalty shall not exceed the number of days the violation continued beyond one-hundred-eighty-one (181) days multiplied by twenty-five percent (25%) of the first day gravity-based penalty.

<b>Table 4A</b>	
<b>Actual or Potential for Harm for Radioactive Materials Security Violations</b>	
<b>Sub-factor: Theft, Diversion, or Sabotage of Radioactive Materials</b>	
<b>Category of Harm</b>	<b>Violations</b>
Very High	1. The theft, diversion, or sabotage of a Category 1 quantity of radioactive material results from the failure to establish or implement one or more legal requirements.
High	1. The theft, diversion, or sabotage of a Category 2 quantity of radioactive material results from the failure to establish or implement one or more increased control legal requirements.
Moderate	1. A licensee fails to immediately respond (e.g., without undue delay in accordance with the licensee's prearranged plan) to an attempted theft, sabotage, or diversion of a Category 1 or Category 2 quantity of radioactive material, including a failure to request assistance from the local law enforcement agency, but the failure does not result in actual theft, sabotage, or diversion of radioactive material.
<b>Sub-factor: Radioactive Materials Security Program Violations</b>	
<b>Category of Harm</b>	<b>Violations</b>
Moderate	1. A licensee fails to establish or implement one or more increased control legal requirements.
<b>Sub-factor: Information Security Violations</b>	
Very High	1. A person who does not have authorization gains access to information requiring protection that may be useful to an adversary about technology or physical security plan of a facility, and both of the following are met: <ul style="list-style-type: none"> <li>- Access to the information was not limited by other controls; and,</li> <li>- The number of days the information was not controlled properly in accordance with the respective handling and storage legal requirements is greater than or equal to 14 days from the date of infraction to discovery of the non-compliance.</li> </ul>

High	<p>1. A person who does not have authorization gains access to information requiring protection whose disclosure, taken by itself, would not aid an adversary in gaining information about a technology or physical security plan of a facility, and both of the following are met:</p> <ul style="list-style-type: none"> <li>- Access to the information was not limited by other controls; and,</li> <li>- The number of days the information was not controlled properly in accordance with the respective handling and storage legal requirements is greater than or equal to 14 days from the date of infraction to discovery of the non-compliance</li> </ul>
Moderate	<p>1. A person who does not have authorization gains access to information requiring protection but either:</p> <ul style="list-style-type: none"> <li>- Access to the information was limited by other controls: or,</li> <li>- The number of days the information was not controlled properly in accordance with the respective handling and storage legal requirements is less than 14 days from the date of infraction to discovery of the non-compliance.</li> </ul> <p>2. Instances when information requiring protection has been secured, protected, or marked improperly but there is no evidence that anyone has accessed the information while it was improperly handled and either of the following conditions is met:</p> <ul style="list-style-type: none"> <li>- The number of days the information was not controlled properly in accordance with the respective handling and storage legal requirements is greater than or equal to 14 days from the date of infraction to discovery of the non-compliance; or,</li> <li>- Access to the information was not limited by other controls</li> </ul>

<b>Table 4B</b> <b>Actual or Potential for Harm for Other Violations Related to Sources of Ionizing Radiation</b>	
<b>Sub-factor: Operations</b>	
<b>Category of Harm</b>	<b>Violations</b>
Very High	<p>1. The loss of control over licensed or regulated activities, including chemical processes that are integral to the licensed or regulated activity, results in serious injury or loss of life.</p> <p>2. A system designed to prevent or mitigate a serious safety event is inoperable when actually required to perform its design function, and this results in serious injury or loss of life.</p> <p>3. Failure to use a properly prepared medical written directive as required or failure to develop, implement, or maintain procedures for medical</p>

	<p>administrations requiring a written directive as required results in serious injury or loss of life.</p> <p>4. Failure to have or to follow required written operating and emergency procedures results in a serious injury or loss of life.</p>
High	<p>1. The loss of control over licensed or regulated activities, including chemical processes that are integral to the licensed or regulated activity, results in the substantial potential for a significant injury or loss of life, whether or not radioactive material is released.</p> <p>2. A system designed to prevent or mitigate a serious safety event is inoperable when actually required to perform its design function.</p> <p>3. A substantial programmatic failure to implement medical written directives or procedures for administrations requiring a written directive, such as a failure of the licensee's procedures to address one or more of the essential elements, or a failure to train personnel in those procedures, results in a medical event.</p> <p>4. Failure to have or to follow required written operating procedures results in a substantial potential (e.g., an event did not occur, but no barriers, neither procedural nor system, including interlocks, would have prevented it, and the event was not highly unlikely to occur) for a serious injury or death.</p>
Moderate	<p>1. A system designed to prevent or mitigate a serious safety event has one of the following characteristics:</p> <p>(a) It is unable to perform its intended function under certain conditions (e.g., a safety system is not operable unless the required backup power is available); or,</p> <p>(b) It is outside design specifications to the extent that a detailed evaluation would be required to determine its operability.</p> <p>2. A programmatic failure occurs to implement written directives or procedures for administrations requiring a written directive.</p> <p>3. A licensee fails to secure a portable gauge as required by regulation.<sup>1</sup></p> <p>4. A significant failure to implement the legal requirements for radiation safety during radiographic operations.</p>

<sup>1</sup> Civil penalty does not apply if a licensee fails to secure a portable gauge, whenever the gauge is not under the control and constant surveillance of the licensee, if one level of physical control existed and there was no actual loss of material, and that failure is not repetitive.

	<p>5. An unqualified person conducts licensed activities.</p> <p>6. Licensed radioactive material is used on humans where such use is not authorized.</p> <p>7. A licensee authorizes the release from its control of an individual who does not meet the release criteria for individuals containing unsealed byproduct material or implants containing byproduct material.</p> <p>8. An individual without supervision operates an irradiator when the individual has not been trained as required.</p> <p>9. A programmatic failure occurs to have and follow required written operating procedures.</p> <p>10. A programmatic failure occurs to perform required irradiator inspection and maintenance checks.</p> <p>11. A licensee fails to seek required approval before the implementation of a significant change in licensed activities that has radiological or programmatic significance.</p> <p>12. A licensee fails to meet significant decommissioning legal requirements.</p>
<b>Sub-Factor: Health Physics<sup>2</sup></b>	
<b>Category of Harm</b>	<b>Violations</b>
Very High	<p>1. An adult radiation worker receives a radiation exposure during any year in excess of 25 rem (0.25 sievert (Sv)) total effective dose equivalent; 75 rem (0.75 Sv) to the lens of the eye; or 250 rem (2.5 Sv) to the skin of the whole body, or to the feet, ankles, hands, or forearms, or to any other organ or tissue.</p> <p>2. A declared pregnant woman receives a radiation exposure over the gestation period of the embryo/fetus of 2.5 rem (0.025 Sv) total effective dose equivalent.</p> <p>3. A minor radiation worker (i.e., an individual less than 18 years of age) receives a radiation exposure during any year in excess of 2.5 rem (0.025 Sv) total effective dose equivalent; 7.5 rem (0.075 Sv) to the lens of the eye; or 25 rem (0.25 Sv) to the skin of the whole body, or to the feet, ankles, hands or forearms, or to any other organ or tissue.</p>

<sup>2</sup> Personnel overexposures and associated violations incurred during a lifesaving or other emergency response effort will be treated on a case-by-case basis.

	<p>4. A member of the public receives an annual exposure in excess of 1 rem (0.01 Sv) total effective dose equivalent.</p> <p>5. A release of radioactive material occurs to an unrestricted area in annual average concentrations in excess of 50 times the limits for members of the public.</p> <p>6. Disposal of licensed radioactive material into sanitary sewerage occurs in quantities or concentrations in excess of 10 times the release limits.</p>
High	<p>1. An adult radiation worker receives a radiation exposure during any year in excess of 10 rem (0.1 Sv) total effective dose equivalent; 30 rem (0.3 Sv) to the lens of the eye; or 100 rem (1.0 Sv) to the skin of the whole body, or to the feet, ankles, hands, or forearms, or to any other organ or tissue.</p> <p>2. A declared pregnant woman receives a radiation exposure over the gestation period of the embryo/fetus in excess of 1.0 rem (0.01 Sv) total effective dose equivalent.</p> <p>3. A minor radiation worker receives a radiation exposure during any year in excess of 1.0 rem (0.01 Sv) total effective dose equivalent; 3.0 rem (0.03 Sv) to the lens of the eye; or 10 rem (0.1 Sv) to the skin of the whole body, or to the feet, ankles, hands, or forearms, or to any other organ or tissue.</p> <p>4. A member of the public receives an annual exposure in excess of 0.5 rem (5 millisieverts (mSv)) total effective dose equivalent.</p> <p>5. Release of radioactive material occurs to an unrestricted area in annual average concentrations in excess of 10 times the regulatory limits except when the Commissioner has approved operation up to 0.5 rem (5 mSv) per year.</p> <p>6. Disposal of licensed radioactive material into sanitary sewerage occurs in quantities or concentrations in excess of 5 times the release limits.</p>
Moderate	<p>1. An adult radiation worker receives a radiation exposure during any year in excess of 5 rem (0.05 Sv) total effective dose equivalent; 15 rem (0.15 Sv) to the lens of the eye; or 50 rem (0.5 Sv) to the skin of the whole body or to the feet, ankles, hands, or forearms, or to any other organ or tissue.</p> <p>2. A declared pregnant woman receives a radiation exposure over the gestation period of the embryo/fetus in excess of 0.5 rem (5 mSv) total effective dose equivalent.<sup>3</sup></p>

<sup>3</sup> Except when doses are in accordance with the provisions of 10 CFR 20.1208(d)) which has been incorporated by reference in RCSA 22a-153-20.



	<p>3. A minor radiation worker receives a radiation exposure during any year in excess of 0.5 rem (5 mSv) total effective dose equivalent; 1.5 rem (0.015 Sv) to the lens of the eye; or 5 rem (0.05 Sv) to the skin of the whole body, or to the feet, ankles, hands, or forearms, or to any other organ or tissue.</p> <p>4. An annual exposure of a member of the public in excess of 0.1 rem (1 mSv) total effective dose equivalent except when operation up to 0.5 rem (5 mSv) per year is authorized by regulation.</p> <p>5. A release of radioactive material occurs to an unrestricted area in annual average concentrations in excess of two times the effluent concentration regulatory limits except when the Commissioner has approved operation up to 0.5 rem (5 mSv) per year.</p> <p>6. A substantial potential exists for exposures or releases in excess of the applicable regulatory limits, whether or not an exposure or release occurs.</p> <p>7. Disposal of radioactive material occurs in quantities or concentrations in excess of the regulatory limits.</p> <p>8. A licensee releases, for unrestricted use, contaminated or radioactive material or equipment that poses a realistic potential for exposure of the public exceeding the annual dose limits for members of the public.</p> <p>9. A technically unqualified person conducts licensee activities.</p> <p>10. A violation involves significant failure to secure, or maintain surveillance over, licensed radioactive material in any of the following situations:</p> <p>(a) involves licensed radioactive material in any aggregate quantity greater than 1,000 times the quantity of licensed radioactive material requiring labeling;</p> <p>(b) involves licensed radioactive material in any aggregate quantity greater than 10 times the quantity of licensed radioactive material requiring labeling, where the failure is accompanied by the absence of a functional program to detect and deter security violations that includes training, staff awareness, detection (including auditing), and corrective action (including disciplinary action); or</p> <p>(c) results in a substantial potential for exposures or releases in excess of the applicable regulatory limits.</p>
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<b>Sub-Factor: Transportation of Radioactive Materials<sup>4</sup></b>	
<b>Category of Harm</b>	<b>Violations</b>
Very High	<p>1. Failure to meet transportation legal requirements results in loss of control of radioactive material with a breach in package integrity such that the radioactive material causes a radiation exposure to a member of the public in excess of the regulatory limits.</p> <p>2. Surface contamination exceeds 50 times regulatory limits.</p> <p>3. External radiation levels exceed 10 times the regulatory limits.</p>
High	<p>1. Failure to meet transportation legal requirements results in loss of control of radioactive material with a breach in package integrity such that there is a clear potential for a member of the public to receive a radiation exposure in excess of the regulatory limits.</p> <p>2. Surface contamination exceeds 10 times, but not more than 50 times, regulatory limits.</p> <p>3. External radiation levels exceed 5 times, but not more than 10 times, regulatory limits.</p>
Moderate	<p>1. Surface contamination exceeds 5 times, but not more than 10 times, regulatory limits.</p> <p>2. External radiation exceeds 1 times, but not more than 5 times, regulatory limits.</p> <p>3. A violation involves labeling, placarding, shipping paper, packaging, loading, or other legal requirements that could reasonably result any of the following:</p> <p>(a) a significant failure to identify the type, quantity, or form of radioactive material;</p> <p>(b) a failure of the carrier or recipient to exercise adequate controls; or,</p> <p>(c) a substantial potential for either personnel exposure or contamination above regulatory limits or improper transfer of radioactive material.</p>
<b>Sub-factor: Impacts the Commissioner's Ability to Perform a Regulatory Function</b>	

<sup>4</sup> Some transportation legal requirements apply to more than one licensee involved in the same activity (e.g., a shipper and a carrier). When such a violation occurs, the Commissioner will direct enforcement action against the responsible licensee or licensees.

Category of Harm	Violations
Very High	<p>1. A person provides or maintains information with careless disregard of its completeness or accuracy. If this information had been completely and accurately provided or maintained, it would likely have caused the Commissioner to issue an order requiring suspension or cessation of licensed activity or other immediate action to protect the public health and safety or the environment.</p> <p>2. A withholding of information or a failure to make a required report occurs, with careless disregard of the underlying legal requirement. If the information had been provided or the report been made, it would likely have caused the Commissioner to issue an Order requiring suspension or cessation of licensed activity or other immediate action to protect the public health and safety or the environment.</p>
High	<p>1. A person provides or maintains information with careless disregard of its completeness or accuracy. If this information had been completely and accurately provided or maintained, it would likely have caused the Commissioner to reconsider a regulatory position or undertake a substantial further inquiry.</p> <p>2. A withholding of information or a failure to make a required report occurs with careless disregard of the underlying legal requirement. If the information had been provided or the report been made, it would likely have resulted in reconsideration of a regulatory position or substantial further inquiry.</p> <p>3. Inaccurate or incomplete information is provided or maintained, with careless disregard of the underlying legal requirement. If this information had been completely and accurately provided or maintained, it would likely have caused the Commissioner to issue an Order requiring suspension or cessation of licensed activity or other immediate action to protect the public health and safety or the environment.</p> <p>4. A withholding of information or a failure to make a required report occurs, with careless disregard of the underlying legal requirement. If the information had been provided or the report been made, it would likely have caused the Commissioner to issue an Order requiring suspension or cessation of licensed activity or other immediate action to protect the public health and safety or the environment.</p>
Moderate	<p>1. Inaccurate or incomplete information is provided or maintained, with careless disregard of the underlying legal requirement. If this information had been completely and accurately provided or maintained, it would likely have caused the Commissioner to reconsider a regulatory position or undertake a substantial further inquiry.</p>

	<p>2. A withholding of information or a failure to make a required report occurs, with careless disregard of the underlying legal requirement. If this information had been provided or the report been made, it would likely have caused the Commissioner to reconsider a regulatory position or undertake a substantial further inquiry including but not limited to failure to make a 24-hour report or notification when required.</p> <p>3. A programmatic failure to comply with reporting legal requirements for transactions involving Nationally Tracked Sources occurs, where a “nationally tracked source” has the same meaning as provided in 10 CFR 20.1003.</p>
Low	<p>1. Failure to register or renew a registration for a source of radiation requiring registration pursuant to Section 22a-148(b) or 22a-150 of Connecticut General Statutes.</p> <p>2. A licensee fails to make an immediate notification when required.</p>

<b>Table 4C</b> <b>Penalty Matrix for Radioactive Material Violations</b>		
<b>Actual or Potential for Harm</b>	<b>Gravity-Based Penalty for Radioactive Materials Security Violations</b>	<b>Gravity-Based Penalty for Other Violations related to Sources of Ionizing Radiation</b>
<b>Very High</b>	\$25,000	\$16,000
<b>High</b>	\$20,000	\$12,000
<b>Moderate</b>	\$12,000	\$8,000
<b>Low</b>	Not Applicable	\$1,000

**Sec. 4. Sections 19-24-1 to 19-24-14, inclusive, sections 19-25a-1 to 19-25a-5, inclusive, and sections 19-25d-1 to 19-25d-11 of the Regulations of Connecticut State Agencies, inclusive, are repealed.**

#### **Statement of purpose.**

##### Purpose of proposal.

This proposal takes the existing regulatory framework for users of radioactive material into the 21<sup>st</sup> century. The existing regulations have not been revised since their adoption in 1982, but our understanding of radiation and applicable federal regulations have changed considerably in the last four decades. The new regulations take into account changes in the science and

understanding of radiation safety as set out in regulations of the Nuclear Regulatory Commission (NRC). The new regulations are consistent with the NRC's regulations, which will create a more uniform regulatory environment for the regulated sources. Consistency with the federal regulations is achieved by incorporation by reference of the NRC regulations.

The proposal also adds civil penalties for violations related to sources of ionizing radiation to the Department's existing administrative civil penalties.

Main provisions. Section 1 of this proposal is the adoption of new sections of the RCSA concerning users of radioactive material. While the Department currently regulates ionizing radiation through RCSA sections 19-24-1 through 19-24-14 (sources and materials), 19-25a-1 through 19-25a-5, and 19-25d-1 through 19-25d-11 (x-ray devices), those regulatory sections are proposed for repeal (Section 4). To the Department's existing administrative civil penalties, violations related to radioactive materials and other sources of ionizing radiation are added, and the approach to use in calculating the level of the penalty is set out. Definitions specific to violations related to sources of ionizing radiation are also added. (Sections 2-3)

Legal effects. In repealing and replacing the current regulations concerning radioactive material, the proposal does not change the number and types of entities regulated. Because current NRC license holders are now subject to these requirements, they will experience minimal change in the nature of the requirements but will experience improved efficiency by the transfer of the administration of the regulations to the Department. This more comprehensive and up-to-date state regulatory framework is a necessary step in creating the regulatory infrastructure to support the state's effort to become an Agreement State with the NRC. As an Agreement State, the NRC will transfer a portion of its authority to license and regulate ionizing regulation to DEEP.

The Department has used future incorporation by reference of the NRC's regulations to achieve compatibility and consistency with the NRC's requirements as required to attain and maintain agreement state status. Compatibility is required by sections 16a-100 and 22a-148 of the Connecticut General Statutes.

The new civil penalties are consistent with the authority provided in CGS section 22a-6b. The civil penalties that will be charged by the Department are essentially the same as those now imposed on violators by the NRC. A new standard of conduct, "careless disregard," is added consistent with this standard in the NRC Enforcement Policy. Civil penalties are assigned based on the potential to harm human health and the environment.