

4.2 Regulatory Requirements Program Elements

This section of the application addresses how the State has developed and will maintain radioactive materials related regulations. The State is incorporating the required and relevant Parts of the CFR by reference to maintain compatibility with NRC regulations. Sections 22a-153-1 through 22a-153-150, inclusive of the Regulations of Connecticut State Agencies (RCSA) incorporates the applicable Parts by reference and identifies those exceptions to incorporation. Sections 22a-6b-1 through 22a-6b-8, inclusive, of the RCSA provide civil penalty determination and protocols which (although not required for compatibility) are based on the NRC enforcement guidance for civil penalties. A complete copy of sections 22a-153-1 through 22a-153-150, inclusive, and sections 22a-6b-1 through 22a-6b-8 of the RCSA is attached as Appendix 4.2-1. Parts 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 150, 170 and 171 of the CFR are incorporated by reference except for those sections reserved to the NRC and those otherwise listed (such as some compatibility C sections where the state requirements are more restrictive and some compatibility D sections).

By incorporating these Parts of the CFR by reference as amended, the State will remain compatible in Compatibility Categories A, B, and C, as well as all program elements identified as having a health and safety role. Since compatibility is required as “a condition of the state exercising regulatory authority,” Section 4-170(b)(4) of Connecticut General Statutes (CGS) authorizes the Legislative Regulations Review Committee to “...approve a Connecticut regulation that by reference specifically incorporates future amendments to such federal statute or regulation...”

The State standards for protection against radiation are based on those of 10 CFR Part 20, including the dose limits for occupationally exposed persons and members of the public; limits on the concentration and quantity of materials released to the environment; and technical definitions and terminology, units of radioactivity and radiation dose, radiation symbols, labels, and warning signs.

The State has adopted those regulatory requirements designated by the NRC with significant transboundary implications. These provide the requirements that affect the movement of materials across state borders, provide certain other regulations, such as the concentrations of materials where the end user is exempt from licensing, and other requirements where a consistent nationwide approach is necessary.

By incorporating Parts of the CFR by reference, State regulations provide an orderly pattern of regulation, avoiding conflict, duplication, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis and will not result in undesirable consequences. NRC staff has reviewed the State regulations for adequacy and compatibility categories as identified in NRC’s MD 5.9. Their comments have been incorporated. NRC comment and State response letters are included as Appendix 4.2-2.

The State regulations cover all categories of material being requested under the Agreement, and do not claim any intent to regulate materials or activities over which the NRC retains jurisdiction.

4.2.1 *Regulations or Legally Binding Requirements*

SA-700 Section 4.2.1.1

1. The State has adopted those NRC requirements designated as Compatibility Category A as defined in the Handbook to Management Directive 5.9. The NRC program elements in Category A are those that are basic radiation protection standards and scientific terms and definitions that are necessary to understand radiation protection concepts. The program elements adopted by the State are identical to those of the NRC and provide uniformity in the regulation of agreement material. This is because the State is incorporating by reference Parts 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 150, 170 and 171 of the CFR, except for those sections exclusively reserved for the NRC.

The State has incorporated by reference the applicable sections of 10 CFR 20 regarding standards for protection against radiation as described in sections 22a-153-20 of the RCSA, Standards for Protection Against Radiation. Future amendments are incorporated by reference in accordance with CGS Section 4-170(b)(4) to ensure compatibility of RCSA whenever the NRC's regulations change..

2. The State has adopted those regulatory requirements that satisfy the criteria for Compatibility Category B as defined in the Handbook to Management Directive 5.9. The NRC program elements in Category B are those that apply to activities that have direct and significant transboundary implications. The program elements adopted by the State are identical to those of the NRC and provide uniformity in the regulation of agreement material.
3. The State has adopted those regulatory requirements that satisfy the criteria for Compatibility Category C as defined in the Handbook to Management Directive 5.9. The NRC program elements in Category C are those that do not meet the criteria of Category A or B, but the essential objectives of which an Agreement State should adopt to avoid conflict, duplication, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis. The program elements adopted by the State by reference are identical to those of the NRC and provide uniformity in the regulation of agreement material. In the specific sections where Connecticut has adopted program elements more restrictive than the NRC, the essential objectives remain met, and the State requirements do not jeopardize an orderly pattern of regulation of agreement material on a nationwide basis.

The State is incorporating the required parts of 10 CFR by reference to eliminate duplications, gaps, or other conflicts in regulation, including duplications, gaps, or conflicts between the State and the NRC, State agencies, or State and local agencies. Relative to activities reserved to NRC regulations, section 22a-153(g) of the CGS states that "This section shall not be construed to confer authority to regulate materials or activities reserved to the United States Nuclear Regulatory Commission under 42 USC 2021(c) and 10 CFR Part 150." Duplications, gaps, and conflicts between the State and the NRC or other states are reduced through section 16a-100 of the CGS [emphasis added]:

*“Declaration of policy. (a) The state of Connecticut endorses the action of the Congress of the United States in enacting the Atomic Energy Act of 1954 to institute a program to encourage the widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public; and therefore declares the policy of the state to be (1) to cooperate actively in the program thus instituted; (2) to **develop programs for the control of ionizing and nonionizing radiation compatible with federal programs for regulation of by-product, source and special nuclear material;** and (3) to the extent that the regulation of special nuclear materials and by-product materials, of production facilities and utilization facilities and of persons operating such facilities may be within the jurisdiction of the state, to provide for the exercise of the state's regulatory authority so as to be compatible with the Atomic Energy Act of 1954 and regulations.”*

(b) The State of Connecticut recognizes that the development of industries producing or utilizing atomic energy may result in new conditions calling for changes in the laws of the state and in regulations issued thereunder with respect to health and safety, working conditions, workers' compensation, transportation, public utilities, life, health, accident, fire and casualty insurance, the conservation of natural resources, including wildlife, and the protection of streams, rivers and airspace from pollution, and therefore declares the policy of the state to be (1) to adapt its laws and regulations to meet the new conditions in ways that will encourage the healthy development of industries producing or utilizing atomic energy while at the same time protecting the public interest; (2) to initiate continuing studies of the need for changes in the relevant laws and regulations of the state by the respective agencies of the state which are responsible for their administration; (3) to assure the coordination of the studies thus undertaken, particularly with other atomic industrial development activities of the state and with the development and regulatory activities of other states and of the government of the United States; and (4) to cooperate with the United States Nuclear Regulatory Commission and the states in promoting the uniformity of radiation laws and regulations, the administration and enforcement of such laws and regulation.”

CGS authority to implement regulations is found in CGS section 22a-148 which requires [emphasis added]:

(b) ... Such regulations or orders shall be compatible with the regulations of the United States Nuclear Regulatory Commission, issued under authority granted to said commission by the Atomic Energy Act of 1954, as codified in 42 USC 2014, as amended from time to time.

Duplications, gaps, and conflicts between the State and other State agencies, or State and local agencies are reduced through section 16a-102 of the CGS [emphasis added]:

*Coordination of atomic development activities by the Commissioner of Energy and Environmental Protection. (a) **The Commissioner of Energy and Environmental Protection shall coordinate all atomic development activities in the state. Said***

commissioner or his designee shall (1) advise the Governor with respect to atomic industrial development within the state; (2) act as coordinator of the development and regulatory activities of the state relating to the industrial and commercial uses of atomic energy; (3) act as the Governor's designee in matters relating to atomic energy, including participation in the activities of any committee formed by the New England states to represent their interests in such matters and also cooperation with other states and with the government of the United States; (4) coordinate the studies, recommendations and proposals of the several departments and agencies of the state required by section 16a-103 with each other and also with the programs and activities of the development commission. The commissioner shall consult with and review regulations and procedures of the agencies of the state with respect to the regulation of sources of radiation to assure consistency and to prevent unnecessary duplication, inconsistencies or gaps in regulatory requirements.

(b) The several agencies of the state which are directed by section 16a-103¹ to initiate and pursue continuing studies are directed to keep the Commissioner of Energy and Environmental Protection fully and currently informed as to their activities relating to atomic energy. No regulation or amendment to a regulation applying specifically to an atomic energy matter which any such agency may propose to issue shall become effective until thirty days after it has been submitted to the Commissioner of Energy and Environmental Protection, unless, upon a finding of emergency need, the Governor by order waives all or any part of this thirty-day period.

The State, in requesting an Agreement to regulate byproduct, source material, and special nuclear material in quantities not sufficient to form a critical mass, as provided in the Atomic Energy Act, as amended, shall not have jurisdiction over areas under NRC jurisdiction on the date that the Agreement becomes effective. An orderly pattern of regulation ensures a transfer of regulatory authority to the State from the NRC, on the date the Agreement becomes effective. This is reflected in numerous sections of RCSA, -

¹ Sec. 16a-103. (Formerly Sec. 19-408). State agencies to study laws and regulations. Each of the following-named state agencies is directed to initiate and to pursue continuing studies as to the need, if any, for changes in the laws and regulations administered by it that would arise from the presence within the state of special nuclear materials and by-product materials and from the operation herein of production or utilization facilities, and, on the basis of such studies, to make such recommendations for the enactment of laws or amendments to law administered by it, and such proposals for amendments to the regulations issued by it, as may appear necessary and appropriate: (1) The Department of Public Health, particularly as to hazards, if any, to the public health and safety; (2) the Labor Department, particularly as to hazardous working conditions, if any; (3) the Workers' Compensation Commission, particularly as to the time and character of proof of claims or injuries and the extent of the compensation allowable therefor; (4) the Department of Motor Vehicles and the Division of State Police within the Department of Emergency Services and Public Protection, particularly as to the transportation of special nuclear materials and by-product materials on highways of the state; (5) the Public Utilities Regulatory Authority, particularly as to the transportation of special nuclear materials and by-product materials by common carriers not in interstate commerce and as to the participation by public utilities subject to its jurisdiction in projects looking to the development of production or utilization facilities for industrial or commercial use; (6) the Insurance Commissioner, particularly as to the insurance of persons and property from hazards to life and property resulting from atomic development; (7) the Commissioner of Energy and Environmental Protection, particularly as to the hazards, if any, to the natural resources of the state, including, without limitation, wildlife, air pollution and the protection, if necessary, of all waterways, including, without limitation, tidal waters, rivers, lakes and streams, from pollution; and (8) such other agencies as the Governor may direct and for the purposes specified by him. No additional employees shall be hired for the purpose of carrying on such studies.

22a-153-1 through 22a-153-150, inclusive, and section 22a-6b of the RCSA which can be found in its entirety attached as Appendix 4.2-1. CGS Sections 16a-100, -102, and -103 and 22a-148 ensure that state programs and regulations avoid conflict, duplication, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis, and that, if not adopted, would result in undesirable consequences.

4. The State has adopted those regulations that satisfy the criteria for the health and safety category as defined in the NRC Handbook to Management Directive 5.9. These are NRC program elements that are not required for compatibility (Category H&S), but that have been identified as having a health and safety role (i.e., adequacy) in the regulation of agreement material within the State. Failures could lead to an exposure to an individual in excess of the basic radiation protection standards in Category A if its essential objectives were not adopted.

Although not required for compatibility, the State adopts program elements in this category, based on those of NRC, because of particular health and safety considerations. The State incorporates health and safety elements that are identical to those of the NRC because the State is incorporating by reference Parts 19, 20, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 150, 170 and 171 of the Code of Federal Regulations (CFR), except for those sections exclusively reserved for the NRC. Incorporation is found in sections 22a-153-1 through 22a-153-150, inclusive, and section 22a-6b of the RCSA which can be found in its entirety attached as Appendix 4.2-1.

SA-700 Section 4.2.1.2

1. The State regulations satisfy the criteria for adequacy and compatibility categories as identified in NRC's MD 5.9.
2. The State regulations apply to all materials covered by the Agreement. The State regulations will apply to all sources of ionizing radiation by incorporating by reference 10 CFR 20 for total occupational dose to individuals for radioactive material and non-radioactive material sources of ionizing radiation.
3. The State adopts the NRC regulations by reference with exceptions and disclaims any intent to regulate materials or activities over which the NRC retains jurisdiction.