

4.3 *Licensing Program Elements*

This section of the application addresses how the Department will handle licensing of radioactive materials. The Department will conduct its licensing program using the NRC Licensing Guidance, NUREG-1556 Series, as the basis for reviewing new license applications, license renewals, and amendments. Additionally, administrative procedures, Radiation Control Procedures (RCPs) will be used for administrative licensing functions.

The Department procedures are broad and relate to all licensing activities, while the NUREG-1556 Series focuses on specific licenses or licensing activities and provides guidance to staff and for applicants and licensees when submitting a new application, renewal, or an amendment to an existing license. These procedures are listed below and contained within this section of the application.

| RCP No. | Title |
|-----------|---|
| RCP 900.1 | Review of Initial Application for License or an Amendment Request |
| RCP 900.2 | Renewal of Licenses |
| RCP 900.3 | License Termination/Revocation |
| RCP 900.4 | NRC Licenses Affected by Agreement States |
| RCP 900.5 | Renewal Notices, Receipt, and Tracking of Licensing Actions |

Section 4.3.1 addresses the guidance for technical reviews (NUREG-1556 Series) and information for license applicants. Section 4.3.5 discusses the procedure for assuring the technical quality of licenses, RCP 900.1, *Review of Initial Application for License or an Amendment Request*.

RCP-900.2, *Renewal of Licenses*, RCP-900.3, *License Termination/Revocation*, RCP-900.4 *NRC Licenses Affected by Agreement States*, and RCP-900.5 *Renewal Notices, Receipt, and Tracking of Licensing Actions* are included in Section 4.3.6 Administrative Licensing Procedures.

Section 4.3.2, 4.3.3, and 4.3.4 affirm that Connecticut is not seeking an Agreement providing responsibility for evaluating radiation safety information on sealed sources or devices, registration for distribution, the technical evaluation of a proposed license for a low level radioactive waste land disposal site, or conducting the evaluation of a regulatory program for 11e.(2) byproduct material including uranium or thorium mining facilities.

4.3.1 Procedures for the Technical Evaluation of Proposed Uses of Radioactive Material

SA-700 Section 4.3.1.1

This section of the application provides technical procedures that address radiation safety issues necessary for the safe and secure storage, possession, use, transport, and disposal of licensed materials. These documents include standard review plans, checklists, and licensing guides.

These procedures address:

- Assessment of Connecticut's facilities and safety equipment, training and experience in the use of the materials for the purpose requested, and proposed managerial controls;
- Security requirements for radioactive materials in quantities of concern, including requirements for pre-licensing site visits for new entities that do not have an existing Agreement State or NRC license, licensees changing ownership to an unknown entity, or licensees that are significantly expanding the size or scope of their existing license;
- Information exchange between the program's inspection staff and licensing staff; and
- The specific required qualification of license reviewers within the staff qualification plan.

They also provide guidance for the evaluation of technical issues in license applications including places and conditions of storage, places and conditions of use, and decommissioning of facilities and equipment. In addition, the procedures address environmental considerations, security against unauthorized removal, and safety equipment. Procedures address the qualification of users, licensee operating and emergency procedures, appropriate surveys, personnel monitoring under the close supervision of technically qualified individuals, and preparations for transport. 10 CFR 35.1000 Emerging Technology issues are addressed by utilizing the guidance provided on the NRC's "Medical Uses Licensee Toolkit" at <https://www.nrc.gov/materials/miau/med-use-toolkit.html> and "Emerging Medical Technologies" at <https://www.nrc.gov/materials/miau/med-use-toolkit/emerg-licensed-med-tech.html>.

Procedures that address license fees, license file maintenance, and other materials program administrative issues are found in Sections 4.3.5 and 4.3.6.

The NUREG-1556 Series documents are used by the Department license reviewers and inspectors. The NUREG-1556 Series Volumes provide detailed instructions and examples for licensees and applicants in the preparation of their radioactive materials applications.

All administrative licensing actions are to be performed with the guidance contained in NUREG-1556 Volume 20 “Guidance About Administrative Licensing Procedures,” and RCP-900.1 through RCP-900.5.

A tabulation of the applicable NUREG-1556 Volumes is provided in Table 4.3-1.

TABLE 4.3-1 NUREG-1556 VOLUMES

NOTE: The most up-to-date volumes can be found at: <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/index.html>

| Volume No. | Volume Title and Website Link |
|------------|---|
| 1 | NUREG-1556, Volume 1, Revision 2, "Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Portable Gauge Licenses." - https://www.nrc.gov/docs/ML1617/ML16175A375.pdf |
| 2 | NUREG-1556, Vol. 2, Rev. 1, "Consolidated Guidance About Materials Licenses. Program-Specific Guidance About Industrial Radiography Licenses, Final Report." - https://www.nrc.gov/docs/ML1606/ML16062A091.pdf |
| 4 | NUREG-1556, Vol. 4, Rev. 1, "Consolidated Guidance About Materials Licenses. Program-Specific Guidance About Fixed Gauge Licenses." - https://www.nrc.gov/docs/ML1618/ML16188A048.pdf |
| 5 | NUREG-1556, Vol. 5, Rev. 1, "Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Self-Shielded Irradiator Licenses - Final Report." - https://www.nrc.gov/docs/ML1817/ML18176A007.pdf |
| 7 | NUREG-1556, Vol. 7, Rev. 1, "Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope - Including Electron Capture Devices and X-Ray Fluorescence Analyzers." - https://www.nrc.gov/docs/ML1806/ML18065A006.pdf |
| 9 | NUREG-1556, Vol. 9, Rev. 3, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Medical Use Licenses" - https://www.nrc.gov/docs/ML1925/ML19256C219.pdf |
| 11 | NUREG-1556 Volume 11, Rev. 1, "Consolidated Guidance About Materials Licenses, Program-Specific Guidance About Licenses of Broad Scope." - https://www.nrc.gov/docs/ML1705/ML17059D332.pdf |
| 12 | NUREG-1556, Vol. 12, Rev. 1, "Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Possession Licenses for Manufacturing and Distribution," - https://www.nrc.gov/docs/ML1813/ML18136A704.pdf |
| 13 | NUREG-1556 Volume 13, Rev 2 - Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Commercial Radiopharmacy Licenses - Final Report. (nrc.gov) |
| 14 | Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Well Logging, Tracer, And Field Flood Study Licenses (NUREG-1556, Volume 14, Revision 1) NRC.gov |

| Volume No. | Volume Title and Website Link |
|------------|---|
| 15 | NUREG-1556, Vol. 15, Rev. 1, "Consolidated Guidance About Materials Licenses - Guidance About Changes of Control and About Bankruptcy Involving Byproduct, Source, or Special Nuclear Material Licenses." - https://www.nrc.gov/docs/ML1618/ML16181A003.pdf |
| 16 | NUREG-1556, Volume 16, Rev. 1 - Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Licenses Authorizing Distribution to General Licensees - Final Report. (nrc.gov) |
| 17 | NUREG-1556, Volume 17, Rev. 1, "Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Special Nuclear Material of Less Than Critical Mass Licenses - Final Report." (nrc.gov) |
| 18 | NUREG-1556, Vol. 18, Rev. 1, "Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Service Provider Licenses." - https://www.nrc.gov/docs/ML1724/ML17242A055.pdf |
| 19 | NUREG-1556, Volume 19, Revision 1, "Consolidated Guidance About Materials Licenses," - https://www.nrc.gov/docs/ML1617/ML16175A107.pdf |
| 20 | NUREG-1556, Vol. 20, Rev. 1, "Consolidated Guidance About Materials Licenses: Guidance About Administrative Licensing Procedures" - https://www.nrc.gov/docs/ML2031/ML20318A384.pdf |
| 21 | NUREG-1556, Vol. 21, Rev. 1, "Consolidated Guidance About Materials Licenses - Program-Specific Guidance About Possession Licenses for Production of Radioactive Material Using an Accelerator - Final Report." (nrc.gov) |

The NUREG-1556 Series documents contain directions for applicants and licensees on forms used to apply for a license, an amendment or renewal to an existing license, and communications with the Department. Connecticut will use equivalent forms issued under its authority for license action requests. Table 4.3-2 provides the Connecticut equivalent forms necessary when applying for a radioactive materials license in Connecticut. An equivalent form to Form 313 is included as an example. The forms and communications are to be sent to:

Connecticut Department of Energy and Environmental Protection Contact Information:

Telephone: 860-424-3029
Email address: DEEP.LRMReg@ct.gov
Mailing Address: 79 Elm Street, Hartford, CT 06106
Attn: Radioactive Materials Program
Radiation Division

Table 4.3-2 NRC and Department Forms

| NRC Form | Department Form | Purpose |
|------------|-----------------|--|
| 313 | 313 | Application for a Radioactive Materials License |
| 313A (RSO) | 313A (RSO) | Radiation Safety Officer (Preceptor Attestation) |
| 313A (AMP) | 313A (AMP) | Authorized Medical Physicist (Preceptor Attestation) |
| 313A (ANP) | 313A (ANP) | Authorized Nuclear Pharmacist (Preceptor Attestation) |
| 313A (AUD) | 313A (AUD) | Authorized User-Diagnostic (Preceptor Attestation) No WD |
| 313A (AUS) | 313A (AUS) | Authorized User Therapy (Preceptor Attestation) |
| 313A (AUT) | 313A (AUT) | Authorized User Written Directive Required (Preceptor Attestation) |
| 314 | 314 | Disposition of Materials |
| 3 | 3 | Notice to Employees |
| 4 | 4 | Cumulative Occupational Dose History |
| 5 | 5 | Occupational Dose Records for a Monitoring Period |
| 241 | 241 | Reciprocity Application |

SA-700 Section 4.3.1.2

The technical procedures are detailed and complete so that Department staff can perform a comprehensive evaluation of the license application. The procedures cover each type of license (by program code) for which an NRC licensee will transfer to Connecticut. Guidance documents, or copies of the procedures containing guidance are available to license applicants.

The procedures:

- Address assessment of the applicant's facilities and safety equipment, training, and experience in the use of the materials for the purpose requested, and proposed managerial controls;
- Address security requirements for radioactive materials with Part 37 quantities of concern and pre-licensing visits for the following:
 - New entities that do not have an existing Agreement State or NRC license;
 - Licensees changing ownership to an unknown entity; or
 - Licensees that are significantly expanding the size or scope of their existing license.
- Provide for information exchange between the Department inspection staff and licensing staff.

- Reference a staff qualification plan of license reviewers for each license program code.
- Provide guidance for the evaluation of technical issues in license applications. The issues evaluated include places and conditions of storage, and places and conditions of use and decommissioning of facilities and equipment. Evaluation of the places of storage and use address environmental considerations. Procedures for evaluating the conditions of storage and use address safety equipment and security against unauthorized removal. Procedures for evaluating the conditions of use address the following:
 - Qualification of users;
 - Licensee operating and emergency procedures;
 - Appropriate surveys;
 - Personnel monitoring under the close supervision of technically qualified individuals; and
 - Preparations for transport.
- Provide guidance for evaluating decommissioning address decontamination, disposal, and any restrictions on the future uses of the property. The procedures address funding and financial sureties.

4.3.2 Procedures for the Evaluation of Radiation Safety Information on Sealed Sources or Devices and Registration for Distribution – Not Applicable

SA-700 4.3.2.1

Connecticut is not applying for authority to regulate the evaluation of radiation safety information on sealed sources or devices nor registration for distribution. As such, there are no procedures in this section of the application.

SA-700 4.3.2.2

Not Applicable. No evaluation performed.

4.3.3 Procedures for Conducting the Technical Evaluation of a Proposed License for a Low-Level Radioactive Waste Land Disposal Site – Not Applicable

SA-700 4.3.3.1

Connecticut is not applying for regulatory authority to conduct the technical evaluation of a proposed license for a low-level radioactive waste land disposal site. As such, there are no procedures in this section of the application.

SA-700 4.3.3.2

Not Applicable. No evaluation performed.

4.3.4 Procedure for Conducting the Evaluation of a Regulatory Program for 11e.(2) Byproduct Material Including Uranium or Thorium Mining Facilities – Not Applicable

SA-700 4.3.4.1

Connecticut is not applying for authority to conduct the evaluation of a regulatory program for 11e.(2) byproduct material including uranium or thorium mining facilities. As such, there are no procedures in this section of the application.

SA-700 4.3.4.2

Not Applicable. No evaluation performed.

4.3.5 Procedures for Assuring the Technical Quality of Licenses

SA-700 4.3.5.1

Department staff will use RCP 900.1, *Review of Initial Application for License or an Amendment Request* to provide means by which the technical quality of licenses is assured. The elements include a primary review and a secondary review conducted by two different qualified license reviewers, as well as a supervisory review. The primary and secondary review are documented using the RCP 900.1, Attachment 4, **License Review Job Aid** and the supervisory review is documented using RCP 900.1, Attachment 5, **Administrative Qualitative Checklist**. These three reviews are used for all new licenses, license amendments, license renewals, and license terminations to help assure the quality of licensing actions. All licensing procedures and their attachments are found in Application Section 4.3.6 Administrative Licensing Procedures.

SA-700 4.3.5.2

Connecticut licensing procedures RCP-900.1 through RCP-900.5 provide a standard process for reviewing the quality of licensing actions. The procedures reflect the organization of the Connecticut Radioactive Materials Program and any special requirements of Connecticut law.

4.3.6 Administrative Licensing Procedures

SA-700 4.3.6.1

Administrative licensing procedures describe the administrative processing steps useful to assure all procedural requirements are completed in licensing activities. There are five administrative procedures for licensing: RCP 900.1 *Review of Initial Application for License or an Amendment Request*, RCP 900.2 *Renewal of Licenses*, RCP 900.3, *License Termination/Revocation* RCP 900.4 *NRC Licenses Affected by Agreement States*, and RCP 900.5 *Renewal Notices, Receipt, and Tracking of Licensing Actions*.

SA-700 4.3.6.2

1. Connecticut has program specific written procedures RCP 900.1 through RCP 900.5 to guide licensing program staff. The procedures reflect the program organization and any special requirements of State law (i.e., who can sign licenses).
2. Connecticut will, within one year of the effective date of the Agreement, re-issue all transferred licenses utilizing the Connecticut license formatting provided in the Web Based Licensing system. License numbers will remain the same as the numbers issued by the NRC. The procedure, RCP 900.4 NRC Licenses Affected by Agreement States, provides further detail on the transfer of licenses.

Regarding the current sites that NRC has covered under letters of forbearance for legacy, non-military radium sites including: the former Waterbury Clock, the former New Haven Clock, and the former Seth Thomas Clock Company. Connecticut intends to issue a consent order or other mechanism consistent with State statute and regulations for each of the three legacy radium sites. Connecticut will not require a specific license for these three radium sites. Any newly identified legacy sites will be evaluated on a case-by-case basis.