

December 9, 2024

Adelaide Giantelli, Chief  
State Agreement and Liaison Programs Branch  
Division of Materials Safety, Security, State and Tribal Programs  
Office of Nuclear Material Safety and Safeguards

Dear Ms. Giantelli:

By letter dated November 1, 2024, the Connecticut Department of Energy and Environmental Protection (DEEP) submitted its application to become an Agreement State for Nuclear Regulatory Commission (NRC) review. In NRC's email dated November 27, 2024, Duncan White provided a request for additional information (RAI) to DEEP related to our submittal. The attachments to this letter provide DEEP's response to the NRC's RAI.

If you have any questions regarding this submittal, please contact me at (860)424-4190 or [jeffrey.semancik@ct.gov](mailto:jeffrey.semancik@ct.gov).

Sincerely,



Jeffrey Semancik  
Director, Radiation Division  
CT Dept of Energy and Environmental Protection

Attachments 1 through 6

CC:

Duncan White, UC NRC  
Huda Akhavannik, US NRC

Brandon Graber, CT DEEP  
Michael Firsick, CT DEEP

**Attachment 1**  
**DEEP Response to NRC Request for Additional Information**

The Connecticut Department of Energy and Environmental Protection (DEEP) submits the following responses to the US NRC's Request for Additional Information (RAI) concerning DEEP's application to become an Agreement State.

**RAI-1**

*The draft Agreement provided in Section 4.1 of the application did not follow standard language in Management Directive (MD) 5.8. We have attached a revised version of the Agreement that aligns with MD 5.8 and includes a signature block for the planned signing ceremony. In your response, please resubmit the revised version of the draft Agreement.*

**DEEP Response**

DEEP has reviewed the proposed changes to the draft Agreement provided by the NRC. DEEP concurs with the proposed changes. A revised draft Agreement has been uploaded to the file sharing account provided by the NRC and is provided as Attachment 2 to this letter.

**RAI-2**

*The discussion in procedures 900.2 and 900.3 regarding actions to be taken for expired licenses do not appear to be aligned. Please revise section 5.11.1.1 of procedure 900.3 to align with section 6.1.4 of procedure 900.2. Specifically, section 5.11.1.1 should serve as a continuation of section 6.1.4. In your response, please provide the revised section(s) to the procedure(s) you have updated and provide a commitment that these procedures have been updated with the revised section(s).*

**DEEP Response**

Radiation Control Procedure (RCP) 900.2 has been revised to refer licensing staff to RCP 900.3 where all actions for expired licenses have been consolidated. Specifically, RCP 900.2 step 6.1.4 now states, "If an application is not received within 30 days of expiration of the license, refer to RCP 900.3 *License Termination/Revocation*." RCP 900.3 section 5.11.1 has been revised to clarify the steps to be taken for an expired license. In person or telephone notification of licensees has been moved to occur before the license expiration date, and staff are directed to consider specific enforcement actions as necessary to ensure unused radioactive material is secured. The revisions to RCP 900.2 and RCP 900.3 have been completed. The full procedures have been uploaded to the file sharing account provided by the NRC. The revised sections are included as Attachments 3 and 4 to this letter

**RAI-3**

*Please provide a list of radiation detection instrumentation possessed by program and a discussion of your overall program to ensure that sufficient radiation detection equipment is maintained calibrated and in good working order.*

**DEEP Response**

Appendix 4.4-1, CT DEEP Radiation Division Instrumentation, was inadvertently omitted from the formal application uploaded by DEEP. Section 4.4 of the application submitted included a discussion (4.4.1 item 6) of our overall program that ensures sufficient radiation detection equipment is maintained calibrated and in good working order. This discussion has been enhanced to include reference to pre-use performance checks conducted by inspectors and the tracking program used to manage the program. The complete revised section 4.4 including appendix 4.4-1 has been uploaded to the file sharing account provided by the NRC. The revised pages and Appendix 4.4-1 are included as Attachment 5 to this letter.

RAI-4

*We also discussed the number of workdays used by Connecticut in your workload analysis and that you would evaluate the basis for the number of workdays. If you need to make any changes to your application because of this evaluation, please include those changes in your response.*

DEEP Response

The detailed workload analysis performed by DEEP used 235 effective 8-hour workdays (1880 hours) for each staff member. This is based on 365 annual days minus 104 weekend days, 13 state holidays, 3 days personal leave, and an average of 10 vacation days. Section 4.6 of DEEP's application inadvertently stated, "These allocations of time are considered reasonable. There are 235 workdays per year including holidays, vacations, and weekends. (One FTE is equivalent to 235 workdays or 1880 hours)." The correct statement is, "These allocations of time are considered reasonable. There are 235 workdays per year for each RMP staff member after excluding holidays, vacations, and weekends. (One FTE is equivalent to 235 effective 8-hr workdays or 1880 hours)." The complete revision to Section 4.6 has been uploaded to the file sharing account provided by the NRC. The revised page is included as Attachment 6 to this letter.

**Attachment 2**  
**Revised Draft Agreement**

**AN AGREEMENT  
BETWEEN  
THE UNITED STATES NUCLEAR REGULATORY COMMISSION  
AND  
THE STATE OF CONNECTICUT  
FOR THE  
DISCONTINUANCE OF CERTAIN COMMISSION REGULATORY AUTHORITY  
AND  
RESPONSIBILITY WITHIN THE STATE OF CONNECTICUT PURSUANT TO  
SECTION 274 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED**

**WHEREAS**, The United States Nuclear Regulatory Commission (hereinafter referred to as the Commission) is authorized under Section 274 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2011 et seq. (hereinafter referred to as the Act), to enter into an agreement with the Governor of the State of Connecticut (hereinafter referred to as the State) providing for discontinuance of the regulatory authority of the Commission within the State under Chapters 6, 7, and 8, and Section 161 of the Act with respect to byproduct material as defined in Sections 11e.(1), 11e.(3), and 11e.(4) of the Act, source material, and special nuclear material in quantities not sufficient to form a critical mass; and

**WHEREAS**, The Governor of the State is authorized under C.G.S. § 22a-152 to enter into this Agreement with the Commission; and

**WHEREAS**, The Governor of the State certified on October 31, 2024 that the State has a program for the control of radiation hazards adequate to protect public health and safety with respect to the materials within the State covered by this Agreement, and that the State desires to assume regulatory responsibility for such materials; and

**WHEREAS**, The Commission found on [DATE] that the program of the State for the regulation of the materials covered by this Agreement is compatible with the Commission's program for the regulation of such materials and is adequate to protect public health and safety; and

**WHEREAS**, The State and the Commission recognize the desirability and importance of cooperation between the Commission and the State in the formulation of standards for protection against hazards of radiation and in assuming that State and Commission programs for protection against hazards of radiation will be coordinated and compatible; and,

**WHEREAS**, The Commission and the State recognize the desirability of the reciprocal recognition of licenses, and of the granting of limited exemptions from licensing of those materials subject to this Agreement; and

**WHEREAS**, This Agreement is entered into pursuant to the provisions of the Atomic Energy Act of 1954, as amended.

**NOW, THEREFORE**, it is hereby agreed between the Commission and the Governor of Connecticut acting on behalf of the State as follows:

## **ARTICLE I**

Subject to the exceptions provided in Articles II, IV, and V, the Commission shall discontinue, as of the effective date of this Agreement, the regulatory authority of the Commission in the State under Chapters 6, 7, and 8, and Section 161 of the Act with respect to the following materials:

- A. Byproduct material as defined in Section 11e.(1) of the Act;
- B. Byproduct material as defined in Section 11e.(3) of the Act;
- C. Byproduct material as defined in Section 11e.(4) of the Act;
- D. Source material; and
- E. Special nuclear material, in quantities not sufficient to form a critical mass.

## **ARTICLE II**

This Agreement does not provide for discontinuance of any authority, and the Commission shall retain authority and responsibility with respect to:

- 1. The regulation of the construction, operation, and decommissioning of any production or utilization facility or any uranium enrichment facility;
- 2. The regulation of byproduct material as defined in Section 11e.(2) of the Act;
- 3. The regulation of the export from or import into the United States of byproduct, source, or special nuclear material, or any production or utilization facility;
- 4. The regulation of the disposal into the ocean or sea of byproduct, source, or special nuclear material waste as defined in the regulations or orders of the Commission;
- 5. The regulation of the disposal of such other byproduct, source, or special nuclear material as the Commission determines by regulation or order should, because of the hazards thereof, not to be disposed without a license from the Commission;
- 6. The evaluation of radiation safety information on sealed sources or devices containing byproduct, source, or special nuclear material and the registration of the sealed sources or devices for distribution, as provided for in regulations or orders of the Commission;
- 7. The regulation of activities not exempt from Commission regulation as stated in 10 CFR Part 150; and The regulation of the land disposal of byproduct, source, or special nuclear waste materials received from other persons.

## **ARTICLE III**

With the exception of those activities identified in Article II, paragraphs one, three through five, and seven, this Agreement may be amended, upon application by the State and approval by the Commission, to include the additional areas specified in Article II, paragraphs two, six, and eight, whereby the State can exert regulatory authority and responsibility with respect to those activities and materials.

## **ARTICLE IV**

Notwithstanding this Agreement, the Commission may from time to time by rule, regulation, or order, require that the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing source, byproduct, or special nuclear material shall not transfer possession or control of such product except pursuant to a license or an exemption from licensing issued by the Commission.

## **ARTICLE V**

This Agreement shall not affect the authority of the Commission under Section 161b or 161i of the Act to issue rules, regulations, or orders to protect the common defense and security, to protect restricted data, or to guard against the loss or diversion of special nuclear material.

## **ARTICLE VI**

The Commission will cooperate with the State and other Agreement States in the formulation of standards and regulatory programs of the State and the Commission for: (a) protection against hazards of radiation; and (b) to assure that Commission and State programs for protection against hazards of radiation are coordinated and compatible.

The State agrees to cooperate with the Commission and other Agreement States in the formulation of standards and regulatory programs of the State and the Commission for: (a) protection against hazards of radiation; and (b) to assure that the State's program will continue to be compatible with the program of the Commission for the regulation of materials covered by this Agreement.

The State and the Commission agree to keep each other informed of proposed changes in their respective rules and regulations, and to provide each other the opportunity for early and substantive contribution to the proposed changes.

The State and the Commission agree to keep each other informed of events, accidents, and licensee performance that may have generic implications or otherwise be of regulatory interest.

## **ARTICLE VII**

The Commission and the State agree that it is desirable to provide reciprocal recognition of licenses for the materials listed on Article I licensed by the other party or by any other Agreement State.

Accordingly, the Commission and the State agree to develop appropriate rules, regulations, and procedures by which reciprocity shall be accorded.

## **ARTICLE VIII**

The Commission may, after notifying the Governor, upon its own initiative after reasonable notice and opportunity for hearing to the State, or upon request of the Governor of Connecticut, may terminate or suspend all or part of this Agreement and reassert the licensing and regulatory authority vested in it under the Act, if the Commission finds that (1) such termination or suspension is required to protect public health and safety, or (2) the State has not complied with

one or more of the requirements of Section 274 of the Act. Pursuant to Section 274j of the Act, the Commission may, temporarily suspend all or part of this Agreement if, in the judgment of the Commission, an emergency situation exists requiring immediate action to protect public health and safety and the State has failed to take necessary steps. The Commission shall periodically review actions taken by the State under this Agreement to ensure compliance with Section 274 of the Act, which requires a State program to be adequate to protect public health and safety with respect to the materials covered by this Agreement and to be compatible with the Commission's program.

## **ARTICLE IX**

This Agreement shall become effective on September 30, 2025 and shall remain in effect unless and until such time as it is terminated pursuant to Article VIII.

Executed in Hartford, Connecticut this [date] day of [month], 2025

FOR THE UNITED STATES NUCLEAR  
REGULATORY COMMISSION

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[Name]  
Chair for the NRC

FOR THE STATE OF CONNECTICUT

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Edward Miner Lamont, Jr.  
(aka Ned Lamont)  
Governor of the State of Connecticut

**Attachment 3**  
**Revised section of RCP 900.2**  
**(revised Dec 5, 2024)**

## 6.0 PROCEDURE

The review of an application for renewal of a specific license shall be conducted by Radiation Division personnel qualified to conduct such a review. All applications will have a secondary independent review performed by a qualified license reviewer prior to submission for approval.

### 6.1 License Expiration

- 6.1.1 Ninety (90) days prior to a license's expiration date, the licensee shall be notified of the pending expiration date using Attachment 1 and that if an application for renewal is postmarked at least 30 days prior to the expiration date, the application will be timely.
- 6.1.2 If the renewal application is postmarked less than 30 days prior, but not after the expiration date, the SRCP shall determine if the application should be considered timely.

#### **NOTE:**

Pursuant to Section 22a-6j any person who files an untimely application for renewal of a license shall be billed, in addition to the application fee, the following for an untimely submittal:

| <b>Days after last date allowed for filing.</b> | <b>Additional Fee.</b>   |
|---|--------------------------|
| Between 14 days and 30 days.                    | 10 % of Application Fee. |
| Between 31 days and 60 days.                    | 20% of Application Fee.  |
| Between 61 days and 90 days.                    | 40 % of Application Fee. |
| Between 91 and 120 days.                        | 50 % of Application Fee. |
| Greater than 120 days.                          | 65 % of Application Fee. |

- 6.1.3 If the application is found to be timely, the licensee is informed by letter that activities authorized by the current license may continue until processing of the renewal has been completed. This letter (Attachment 2) must be issued within 30 days of the receipt.
- 6.1.4 If an application is not received prior to 30 days of expiration of the license, refer to RCP 900.3 *License Termination/Revocation*.
- 6.1.5 The Radiation Control Program Director or designee, must approve continued operation under the authority of any license for which the renewal application was submitted after the license's expiration date.

### 6.2 License Renewal

**Attachment 4**  
**Revised section of RCP 900.3**  
**(revised Dec 5, 2024)**

5.8.3.1 For licenses that authorize both sealed and unsealed sources of radioactive material, the highest risk use shall dictate the decommissioning process.

5.9 License Termination - Sealed Sources

5.9.1 Determine which decommissioning group applies and follow the guidance in NUREG-1757 Volume 1.

5.10 License Termination - Unsealed Sources

5.10.1 Determine which decommissioning group applies and follow the guidance in NUREG-1757 Volume 1.

5.11 Expired License

5.11.1 Licensee Contacted.

5.11.1.1 If an application is not received prior to 30 days before the expiration of the license, without the receipt of a request for license termination or license renewal, the licensee shall be contacted in person (preferred) or by telephone and in writing within 30 days of the expiration of the license. The written notice of the license expiring, shall be recorded and transmitted to the licensee by registered mail, return receipt requested (see Attachment 1, **Sample Letter for Notification of Pending License Expiration**). The licensee shall be informed that any activity using radioactive material under the license shall cease until a renewal application is received or the licensed material *shall* be placed in storage pending disposal or disposed of.

5.11.1.2 If the licensee intends to continue licensed operations and states that the failure to submit an application for license renewal was an oversight, the licensee shall be informed that operations shall cease and that an application for license renewal should be submitted as soon as possible. The licensee shall be informed that operation without a current *valid* license constitutes noncompliance and that appropriate enforcement action will result.

5.11.1.3 The licensee shall be informed that only the RCPD or designee may authorize continued use of radioactive material without a current license.

5.11.1.4 The notice to cease licensed activities shall be recorded and transmitted to the licensee by registered mail, return receipt requested (see Attachment 2, **Sample Letter for License Expiration**) within 7 days after the expiration of the license. This notification to the licensee transmits the requirements for the proper disposition of radioactive materials with CTDEEP Form 314 (See Attachment 3) attached.

5.11.1.5 Additionally, a notice of violation will be issued within 7 days after the expiration of the license. If no response is received by the deadline outlined in the notice of violation, escalated enforcement such as a consent order, unilateral order, cease and desist order may be pursued in accordance with RCP 902.1 *Enforcement-Escalated Enforcement and Administrative Actions*.

5.11.1.6 Upon expiration of a license to possess risk-significant radioactive material for which contact cannot be made with the licensee, the RCPD or designee may consult with legal counsel for prompt action to ensure the safety of the public in accordance with RCP 902.1

#### 5.11.2 Licensee Not Contacted.

5.11.2.1 Returned, undeliverable mail to licensees must trigger an immediate follow-up. The follow-up must include a telephone call, email, or site visit to the licensee to verify the licensee's physical address.

5.11.2.2 If the licensee cannot be contacted either by telephone, visit to the address on the license, or all other reasonable efforts, the authorized place of use shall be inspected and surveyed. All possible means must be taken to establish the facts associated with the loss of contact, including interviews of related parties like landlords, neighboring

parties, or vendors. A survey for radiation and radioactive materials must also be conducted of premises left abandoned. If no radioactive materials are found and the survey indicates the facility is free of radioactive contamination, necessary legal action must proceed in order to revoke the license.

5.11.2.3 If residual contamination is discovered, the facility shall be restricted from unauthorized access and decontaminated to acceptable levels and the license revoked in accordance with section 22a-155 of the Connecticut General Statutes. All legal efforts to require this of the licensee shall be exhausted before taking other actions. Consult with the Department's legal counsel about these and all other steps.

5.11.2.4 If there was an emergency, the Department could use section 22a-157a of the Connecticut General Statutes to mitigate or force the mitigation of the hazard. If the Department incurred any cost as a result of this action, it has the authority to seek the recovery of costs under this statute.

## Attachment 1

### Radioactive Materials Program

#### Sample Letter for Notification of Pending License Expiration



**Connecticut**  
Department of Energy &  
Environmental Protection

<DATE>

<LICENSEE NAME>

<CONTACT NAME TITLE>

<CITY, STATE, ZIP>

**SUBJECT: EXPIRATION OF LICENSE ON <EXPIRATION DATE>**

Dear <NAME>,

The Connecticut Department of Energy and Environmental Protection (CT-DEEP) records show that Connecticut Radioactive Materials License No. <LICENSE NO.> will expire on <DATE>. A letter was sent on <DATE> (copy enclosed) informing you that your license would expire on <DATE>.

As of the date of this letter, no renewal application has been filed as per <INSERT CT REGULATION>. Effective <EXPIRATION DATE>, the license will be amended by the Connecticut Department of Energy and Environmental Protection to be a possession-only license allowing only the storage of the licensed material pending its transfer or disposal to a person authorized to receive it by a license issued by the NRC or an Agreement State.

Any use of the licensed material after <EXPIRATION DATE> is in violation of sections 22a-153-1 through 22a-153-150, inclusive, of the Regulations of Connecticut State Agencies. If you wish to continue the use of licensed material after <EXPIRATION DATE> you must apply to renew your Connecticut Radioactive Material License.

If you have decided not to possess radioactive materials and to discontinue your program, immediately transfer all radioactive material formerly authorized by the license to an authorized recipient. You must verify that the recipient's license authorizes the receipt of the isotope(s), type, form, and quantity of radioactive material to be transferred. You must perform any decommissioning necessary decontamination of the facility in accordance with 10 CFR 30.36 - Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.

Send copies of the transfer records, a renewal application, or a written request for termination of the license and appropriate attachments (i.e., decommissioning surveys of the facility, leak tests, etc.) to the CT-DEEP by **<INSERT DATE 30 days of the date of this letter>**. For termination of the license, complete Department Form 314 Certificate of Disposition of Radioactive Materials (enclosed).

Send your response to the following address:

**Radioactive Materials Program  
Radiation Division  
Connecticut Dept. of Energy and Environmental Protection  
79 Elm Street, Hartford, CT 06106**

Sincerely,

Radiation Division Director

## Attachment 2

### Radioactive Materials Program Sample Letter License Expiration



**Connecticut**  
Department of Energy &  
Environmental Protection

<DATE>

<LICENSEE NAME>

<CONTACT NAME TITLE>

<CITY, STATE, ZIP>

**SUBJECT: EXPIRED LICENSE**

Dear <NAME>,

The Connecticut Department of Energy and Environmental Protection (CT-DEEP) records show that Connecticut Radioactive Materials License No. <LICENSE NO.> expired on <DATE>. A letter was sent on <DATE> (copy enclosed) informing you that your license would expire on <DATE>.

As of the date of this letter, no renewal application has been filed as per <INSERT CT REGULATION>. The license has been amended by the Connecticut Department of Energy and Environmental Protection to be a possession-only license allowing only the storage of the licensed material pending its transfer to a person authorized to receive it by a license issued by the NRC or an Agreement State.

Any use of the licensed material is in violation of sections 22a-153-1 through 22a-153-150, inclusive, of the Regulations of Connecticut State Agencies. If you wish to resume use of the licensed material you may apply for a new Connecticut Radioactive Material License.

Report to the Connecticut Department of Energy and Environmental Protection in writing of the steps taken to transfer all licensed material in your possession. Your report on Department Form 314 Certificate of Disposition of Radioactive Materials must be received no later than <INSERT DATE 30 days from date of letter>.

If you have decided not to possess radioactive materials and to discontinue your program, immediately transfer all radioactive material formerly authorized by the license to an authorized recipient. You must verify that the recipient's license authorizes the receipt of the isotope(s), type, form, and quantity of radioactive material to be transferred. You must perform any decommissioning necessary decontamination of the facility in accordance with 10 CFR 30.36 - Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.

Send copies of the transfer records, a separate written request for termination of the license and appropriate attachments (i.e., decommissioning surveys of the facility, leak tests, etc.) to the CT-DEEP within 30 days of the date of this letter. Complete Department Form 314.

Send your response to the following address:

**Radioactive Materials Program  
Radiation Division  
Connecticut Dept. of Energy and Environmental Protection  
79 Elm Street, Hartford, CT 06106**

Sincerely,

Radiation Division Director

**Attachment 5**  
**Revised pages of Section 4.4 Inspection Program Elements**  
**Appendix 4.4-1 CT DEEP Radiation Division Instrumentation**  
**(revised December 6, 2024)**

|  |  |
|--|--|
| 87141  | Limited Scope Academic and Research & Development Programs Including Animal Use  |
| 87142  | Sealed Sources and Devices (Other) Used in Measuring Systems, Analytical Instruments, Calibration and Checking of Instruments, and Similar Purposes  |
| 87143  | Self-Shielded Irradiator and Calibrator Devices  |
| 87144  | Veterinary Use Programs  |
| 87250  | Locating Missing Materials Licensees   |
| NUREG 1757   | Consolidated Decommissioning Guidance  |
| NUREG 1556   | Volume 1, Appendix E- Portable Gauge Audit Checklist<br>Volume 2, Appendix G- Industrial Radiography Radiation Safety Audit Checklist<br>Volume 4, Appendix E- Fixed Gauge Audit Checklist<br>Volume 5, Appendix I- Self-Shielded Irradiator Audit Checklist<br>Volume 6, Appendix G-10 CFR Part 36 Irradiators Suggested Audit Checklist<br>Volume 7, Appendix H-Academic, Research and Development, and Other Licenses of Limited Scope Including Electron Capture Devices and X-Ray Fluorescence Analyzers<br>Sample Audit Program Checklist<br>Volume 9, Appendix L-Medical Licenses Model Medical License Audit Checklist<br>Volume 11, Appendix F - Broad Scope Non-Medical Audit Checklist<br>Volume 12, Appendix G- Sample Audit Program Possession Licenses for Manufacturing and Distribution Checklist<br>Volume 13, Appendix I-Suggested Commercial Radiopharmacy Licenses Audit Checklist<br>Volume 17, Appendix E-Suggested Audit Checklist Special Nuclear Material of Less than Critical Mass<br>Volume 18, Appendix L, Suggested Service Provider Audit Checklist |
| RCP 900.1 Attachment 1 Pre-Licensing Checklist   |  |
| RCP 900.1 Attachment 2 Risk Significant Radioactive Materials Checklist                    |  |
| NRC Enforcement Manual   |  |
| STP SA-102 “Reviewing the Common Performance Indicator, Technical Quality of Inspections”. |  |
| NRC Enforcement Policy   |  |

6. To facilitate effective inspections, for radiation protection purposes and for emergency preparedness, the Department possesses and maintains numerous radiological instruments, listed in Appendix 4.4-1. These instruments are capable of measuring exposure rates from x- and gamma radiation, absorbed dose rates from beta radiation, and count rates from alpha, beta, beta-gamma, gamma and neutron radiation-emitting radioactive materials of a wide range of energies. Some field instruments are capable of isotopic identification. Radiation detection instruments are assigned to individuals, with additional equipment available at the Windsor laboratory, to ensure appropriate instrumentation for potential surveys as related to the licensed activities being inspected. As we do now, the Radioactive Materials Program will maintain sufficient instruments for the above purposes in good working order. They will be calibrated annually by a

facility licensed for such. CBRNResponder© is used to record, track and manage maintenance and calibrations of instruments.

Portable instrument calibrations are and will be conducted by an ISO/IEC 17025 accredited and qualified instrument calibration service vendor under state contract. Instrument manufacturers may also be used for specific instrument repair or other service needs beyond calibration. Prior to use, inspectors, per guidance in RCP 901.2 *Inspection Preparations*, perform operations checks of the survey instruments including, at a minimum, verification of calibration, no physical damage, battery status, and source response in order to ensure equipment is in good working order prior to use.

Radiochemical analysis is provided by either the Connecticut Department of Public Health Laboratory (instrumentation listed in Appendix 4.4-1) or by a vendor laboratory maintained under state contract qualified to conduct analysis.

#### SA-700 Section 4.4.1.2

1. Connecticut performs inspections following written procedures RCP-901.1 through RCP 901.6 that addresses inspection activities appropriate to the category of licensee being inspected.
2. Connecticut correlates inspection frequency to the amount and kind of material and type of operation licensed. Inspection frequency is as listed in the NRC Inspection Manual Chapter 2800.
3. Inspection procedures include information exchange between inspection staff and licensing staff.
4. Connecticut maintains adequate field instrumentation and laboratory service capabilities necessary to evaluate licensees' control of materials. Calibrations are performed by a qualified calibration facility. Laboratory analysis is performed by qualified laboratories.
5. Connecticut notifies licensees of the results of inspections in a short time period, typically within 15 days as stated in RCP 901.4.

## *Appendix 4.4-1*

### *CT DEEP Radiation Division Instrumentation*

#### **Ion Chambers**

Ludlum 9-3 **QTY 20**

Ludlum Model 9 **QTY 1**

Eberline RO 20 **QTY 1**

Thermo RO 20 **QTY 3**

Innovision 451P (pressurized ion chamber) **QTY 1**

Ludlum 9DP-1 (pressurized ion chamber) **QTY 5**

#### **GM Detectors**

Ludlum 14C w/ 44-9 (pancake probe), 43-2 (alpha probe), 44-3 (low energy gamma probe), 44-2 (sodium iodide probe), 44-38 (gamma probe) **QTY 17**

Ludlum Model 3 w/ 44-9 (pancake probe) **QTY 20**

Ludlum Model 3078 stretch scope **QTY 1**

Ludlum Model 77-6 stretch scope **QTY 1**

Canberra MRAD213 **QTY 23**

Canberra Ultra Radiac Plus **QTY 9**

RadEye **QTY 3**

Arrow 608 self-reading dosimeter **QTY 1**

EcoGamma g (energy compensated GM) **QTY17**

Digital Scaler

Ludlum 2241-2 w HP210 (pancake probe), HP270 (hotdog probe) **QTY 8**

Ludlum 2241-3 w 44-9 (pancake probe), 44-38 (gamma probe), 133-7 (high energy gamma probe), 44-2 (sodium iodide probe) **QTY 9**

Ludlum 2241-1 w 43-37 2x16x46.5 cm. gas proportional detector (floor monitor) **QTY 1**

## **NaI Dectectors**

ThermoFisher Bicron MicroRem **QTY 2**

Eberline E600 w/ SSPA3 (gamma probe) **QTY 4**

Ludlum Model 19 **QTY 9**

Ludlum Model 19A **QTY 1**

## **Proportional Detector**

Ludlum 12-4 Neutron Detector (He3 Proportional Detector) **QTY 1**

Ludlum 3030P Portable alpha/beta counter (solid state silicon detector) **QTY 1**

Canberra 5XLb (gas flow proportional detector) **QTY 1**

## **Air Samplers**

SAIC 787 Air Sampler **QTY 3**

RADeCO h-810 DC Air Sampler **QTY 6**

## **Spectroscopic**

FLIR Identifinder **QTY 2**

ThermoFisher Identifinder **QTY 11**

Fiddler **QTY 1**

Tri Athler **QTY 1**

SpirAce **QTY 2**

Genie XPort **QTY 1**

## **X Ray**

Fluke Biomedical **QTY 6**

Ray Safe **QTY 2**

**Assorted Probes**

**44-9 QTY 51**

**43-2 QTY 15**

**44-3 QTY 38**

**44-2 QTY 23**

**44-38 QTY 22**

**133-7 QTY 5**

**HP210 QTY 9**

**HP270 QTY 11**

**Attachment 6**  
**Revised page of Section 4.6 Technical Staffing and Training**  
**(revised December 6, 2024)**

including email, telephone, and letter correspondence between the RMP staff member and the applicant/licensee. This estimate includes program management and administrative functions.

The inspection program estimates also include time for inspection preparation, travel, inspection report generation and supervisory accompaniments. The RMP staff will follow the NRC's materials program inspection frequencies as indicated in Enclosure 1 of NRC Inspection Manual 2800. This enclosure is used to describe the inspection priority codes assigned to program codes in the RMP procedure RCP-900.1, *Review of an Initial Application for a License or an Amendment Request*, Attachment 6.

Based on conservative assumptions, including licensing action and inspection activities to support incident and allegation responses, decommissioning, and general licenses, Connecticut's licensing and inspection activities will require 350 staff days for licensing and 426 staff days for inspections each year (the totals in the fifth and eighth columns in Table 4.6.1-1). Mr. Gruber can devote a minimum of 129 days to inspection and 106 days per year to licensing activities per year. Mrs. Verderame and Mr. Strickland each can devote 103 days to inspections and 85 days to licensing activities per year. Ms. Perry and Mr. Alford can each devote 45 days to inspections per year and 37 days to licensing per year. Mr. Semancik, Mr. Firsick and Ms. Davies can devote 13, 52, and 26 days respectively to inspections and 11, 42, and 21 days respectively to licensing activities per year. The total number of days per year for inspection and licensing from the RMP staff comes to 517 for inspections and 423 for licensing.

These allocations of time are considered reasonable. There are 235 workdays per year for each RMP staff member after excluding holidays, vacations, and weekends. (One FTE is equivalent to 235 effective 8-hr workdays or 1880 hours). Mr. Gruber will be 100% devoted to the RMP, while Mrs. Verderame and Mr. Strickland can each devote 80% of their time to agreement state work. Ms. Perry and Mr. Alford will each devote 35% of their time. Mr. Semancik, Mr. Firsick and Ms. Davies will devote 10%, 40% and 20% respectively of their time. Using these percentages and the standard work year of 235 days, the RMP staff may provide as many as 940 workdays to a program requiring 776 workdays. These calculations are estimates, but indicate a sufficient margin exists with the Department staffing levels. Additionally, Connecticut discussed staffing with Vermont due to similarities in program size. Discussions with Vermont suggested that Vermont's estimate for their staffing is similar to those determined by Connecticut.

A guide for the suggested number of technical staff members is also provided in the Handbook for Processing an Agreement: "Agreement States typically employ 1 to 1.5 technical staff members per 100 active licenses." The number of licenses varies from year-to-year, especially with reciprocity, but has historically numbered less than 150. The RMP with 8 staff members and the Director qualifying as Inspectors and License Reviewers meets this guidance. The Handbook also states that "the staff must consist of at least two technical staff." Three additional staff members in the Division have commenced taking NRC Agreement State courses to provide professional knowledge and defense in depth the RMP. The Department will always strive to maintain at least two qualified inspectors and license reviewers.