

4.6 Technical Staffing and Training

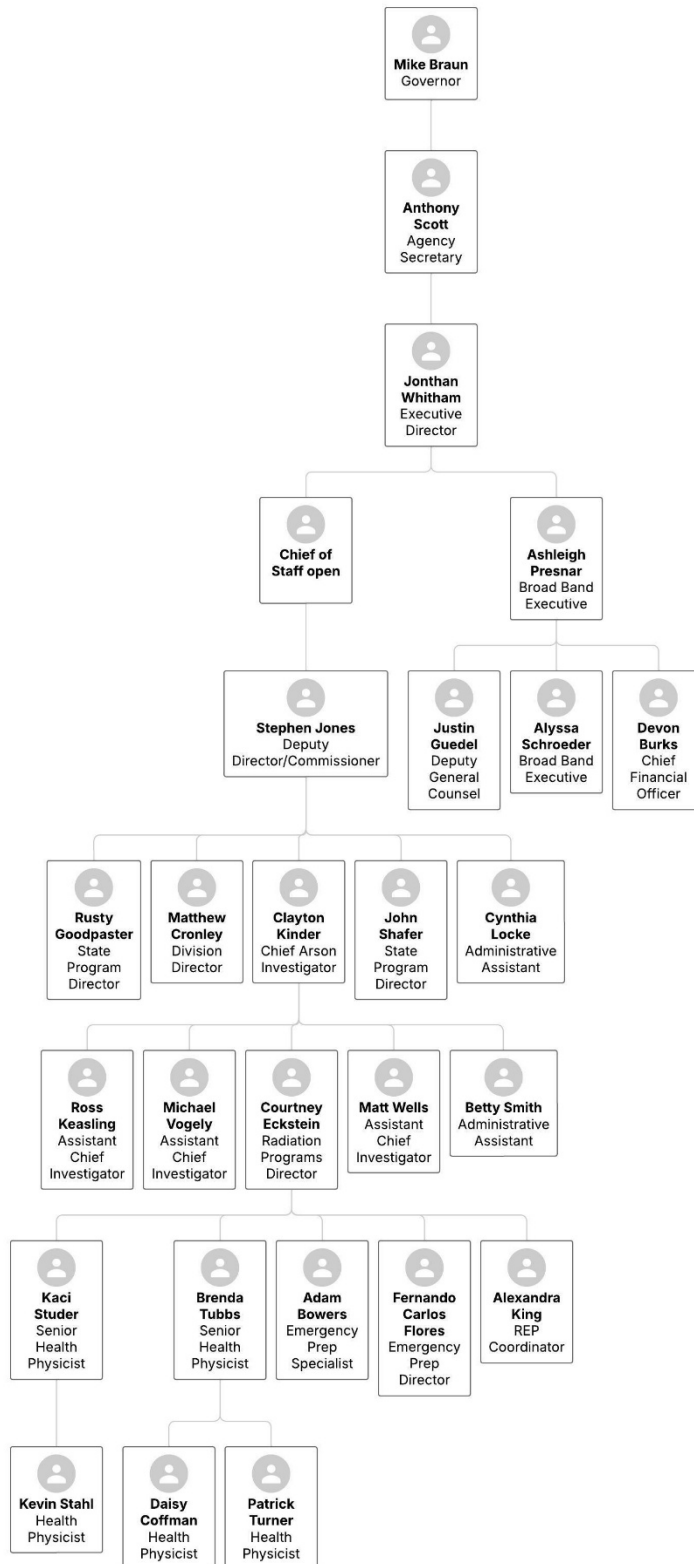
The State of Indiana is using the NRC Inspection Manual Chapter 1248 Formal Qualification Program for Federal and State Materials and Environmental Management Programs as a model for technical staffing and training program elements. This is described in this section of the Application. In Section 4.6.1 below, we describe the organization of the program and provide a staffing analysis to indicate that the organization will be sufficient to maintain the Agreement State Program. In Section 4.6.2, we describe the staff qualification plan, and in Section 4.6.3, we describe the qualifications of the current staff.

4.6.1 Technical Staff Organization

As described in Section 4.1.2, the Radioactive Materials Control Program will reside within the Indiana Department of Homeland Security. The staff responsible for the Agreement State Program work in the Radiation Program which is shown in the organization chart below. The staff is comprised of two Senior Health Physicists and three Health Physicists. The program will also have the support of the Radiation Programs Director, Hazmat Section Chief, General Counsel for the Indiana Department of Homeland Security, and additional legal support from the Office of General Council. For emergency preparedness, the Radiological Emergency Preparedness Coordinator, the Radiological Transportation and Radiological Nuclear Prevention Program Manager, and the Indiana Department of Health Radiochemistry Lab support prevention, response, and recovery efforts.

The primary document describing the qualifications and training of Radioactive Material Control Program staff is RMCPP 5.1 *Qualifications and Training*. In these procedures, various roles are described. RMCP staff will become qualified as Materials Inspectors and License Reviewers following the guidance of RMCPP 5.1 *Qualification and Training* and are tracked in RMCPP 5.1 Attachment 5.1-1 *Health Physicist Qualification Journal*. The RMCPP and Qualification Journal are in Section 4.6.2 below. Additionally, below is an organizational chart showing from Governor to Agency Head down to the Health Physicists. This chart is not meant to be exhaustive of the entire IDHS structure but demonstrates pathways between the HPs and other sections of IDHS.

Organizational Chart



Staff Needs Analysis

An analysis was performed using the forms from the Handbook for Processing an Agreement. The first form is the Staff Needs Analysis, Table 4.6-1. The second form is the Staff Resource Analysis, Table 4.6-2. This table includes a column for “Admin” which corresponds with items such as correspondence with licensees, travel arrangements, legal input and decision making, as well as training tracking and program auditing. This indicates the staff responsibility breakdown. The final form, Table 4.6-3, shows the difference between the number of staff needed and available time. It indicates that for the radioactive material licensees in Indiana, there is more than a sufficient amount of staff time available. Each of the categories of inspections in the table includes security inspections. The data below is based upon NRC provided data for Indiana inspection and licensing actions for the years 2015 through 2019. Due to an increase in licensees from 2019 to 2025, a twenty five percent increase in Full Time Employee (FTE) estimates is added. Inspection hours include preparation, documentation, and onsite inspection time. For licensing actions, hours per amendment action are assumed to be 40% of the time needed to process a new or renewal action.

Table 4.6-1 Inspection Actions Breakdown

| Program Code | Inspection Frequency (years) | No. of Licenses | Inspections per year | Inspection Hours (1) | Total Annual Inspection Hours |
|--------------|------------------------------|-----------------|----------------------|----------------------|-------------------------------|
| 01100 | 3 | 2 | 0.67 | 90 | 60 |
| 02120 | 3 | 28 | 9 | 52 | 468 |
| 02121 | 5 | 17 | 3.4 | 13 | 44 |
| 02200 | 3 | 3 | 1 | 18 | 18 |
| 02201 | 5 | 10 | 2 | 13 | 26 |
| 02220 | 3 | 1 | 0.33 | 9 | 3 |
| 02230 | 2 | 18 | 9 | 16 | 144 |
| 02240 | 2 | 12 | 6 | 25 | 150 |
| 02400 | 2 | 3 | 1.5 | 10 | 15 |
| 02410 | 5 | 2 | 0.4 | 6 | 2.4 |
| 02500 | 2 | 6 | 3 | 25 | 75 |
| 02511 | 5 | 6 | 1.2 | 16 | 19 |
| 03110 | 3 | 1 | 0.33 | 51 | 17 |
| 03120 | 5 | 32 | 6.4 | 14 | 90 |
| 03121 | 5 | 17 | 3.4 | 15 | 51 |
| 03122 | 5 | 2 | 0.4 | 7 | 2.8 |
| 03124 | 5 | 1 | 0.2 | 9 | 1.8 |
| 03210 | 2 | 5 | 2.5 | 26 | 65 |
| 03211 | 2 | 1 | 0.5 | 78 | 39 |
| 03214 | 5 | 5 | 1 | 32 | 32 |
| 03221 | 5 | 3 | 0.6 | 11 | 6.6 |
| 03225 | 5 | 3 | 0.6 | 26 | 15.6 |
| 03310 | 2 | 1 | 0.5 | 28 | 14 |
| 03320 | 1 | 7 | 7 | 28 | 196 |
| 03610 | 3 | 1 | 0.33 | 21 | 7 |
| 03611 | 5 | 2 | 0.4 | 26 | 10 |
| 03620 | 5 | 5 | 1 | 33 | 33 |
| 03810 | 3 | 1 | 0.33 | 10 | 3.3 |
| 04210 | 2 | 1 | 0.5 | 25 | 12.5 |
| 04312 | 1 | 2 | 2 | 16 | 32 |
| 04416 | 5 | 5 | 1 | 31 | 31 |
| 04618 | 5 | 1 | 0.2 | 51 | 26 |
| 04710 | 2 | 1 | 0.5 | 56 | 28 |
| 04820 | 3 | 1 | 0.33 | 12 | 4 |
| 04822 | 2 | 3 | 1.5 | 34 | 51 |
| 11300 | 5 | 1 | 0.2 | 23 | 4.6 |
| 22110 | 3 | 2 | 0.67 | 31 | 21 |
| 22120 | 5 | 1 | 0.2 | 21 | 4.2 |
| | Total Inspection | 213 | 70.09 | Hours: | 1822.8 |

New and Renewal Licensing Actions Breakdown

| Program Code | New and Renewal Licensing Actions: 1/1/20 - 3/30/25 | Licensing Actions per year | Licensing Hours per new or renewal application | New and Renewal Licensing Hours per year |
|--------------|--|----------------------------|--|--|
| 01100 | 1 | 0.23 | 80 | 18 |
| 02120 | 24 | 5.6 | 52 | 291 |
| 02121 | 14 | 3.3 | 20 | 66 |
| 02200 | 2 | 0.46 | 40 | 18 |
| 02201 | 8 | 1.9 | 20 | 38 |
| 02220 | 0 | 0 | 40 | 0 |
| 02230 | 9 | 2.1 | 50 | 105 |
| 02240 | 5 | 1.2 | 24 | 29 |
| 02400 | 2 | 0.46 | 25 | 11 |
| 02410 | 1 | 0.23 | 10 | 2.3 |
| 02500 | 3 | 0.7 | 75 | 53 |
| 02511 | 1 | 0.23 | 60 | 14 |
| 03110 | 0 | 0 | 20 | 0 |
| 03120 | 22 | 5.2 | 33 | 172 |
| 03121 | 8 | 1.9 | 21 | 40 |
| 03122 | 0 | 0 | 17 | 0 |
| 03124 | 2 | 0.46 | 17 | 7.8 |
| 03210 | 3 | 0.7 | 52 | 36 |
| 03211 | 0 | 0 | 47 | 0 |
| 03214 | 3 | 0.7 | 40 | 28 |
| 03221 | 1 | 0.23 | 17 | 4 |
| 03225 | 1 | 0.23 | 32 | 7 |
| 03310 | 1 | 0.23 | 31 | 7 |
| 03320 | 3 | 0.7 | 31 | 22 |
| 03610 | 0 | 0 | 40 | 0 |
| 03611 | 1 | 0.23 | 40 | 9 |
| 03620 | 7 | 1.6 | 30 | 48 |
| 03810 | 1 | 0.23 | 17 | 4 |
| 04210 | 0 | 0 | 25 | 0 |
| 04312 | 0 | 0 | 31 | 0 |
| 04416 | 0 | 0 | 21 | 0 |
| 04618 | 0 | 0 | 26 | 0 |
| 04710 | 0 | 0 | 52 | 0 |
| 04820 | 0 | 0 | 40 | 0 |
| 04822 | 2 | 0.46 | 50 | 23 |
| 11300 | 0 | 0 | 10 | 0 |
| 22110 | 2 | 0.46 | 9 | 4 |
| 22120 | 1 | 0.23 | 9 | 3 |

| Program Code | New and Renewal Licensing Actions: 1/1/20 - 3/30/25 | Licensing Actions per year | Licensing Hours per new or renewal application | New and Renewal Licensing Hours per year |
|---------------|---|----------------------------|--|--|
| New & Renewal | 128 | 29.97 | Hours: | 1060.1 |

Amendment Licensing Actions Breakdown

| Amendment Licensing Actions: 1/1/20 - 3/30/25 | Licensing Actions per year | Licensing Hours per amendment application (2) | Amendment Licensing Hours per Year |
|---|----------------------------|---|------------------------------------|
| 7 | 1.6 | 32 | 51 |
| 97 | 23 | 21 | 483 |
| 27 | 6.3 | 8 | 50 |
| 21 | 4.9 | 16 | 18 |
| 13 | 3 | 8 | 24 |
| 0 | 0 | 16 | 0 |
| 171 | 40 | 20 | 800 |
| 60 | 14 | 10 | 140 |
| 6 | 1.4 | 10 | 14 |
| 6 | 1.4 | 4 | 14 |
| 29 | 6.8 | 30 | 204 |
| 6 | 1.4 | 24 | 34 |
| 0 | 0 | 8 | 0 |
| 69 | 16 | 13 | 208 |
| 17 | 4 | 8 | 32 |
| 0 | 0 | 7 | 0 |
| 3 | 0.7 | 7 | 5 |
| 10 | 2.3 | 21 | 48 |
| 0 | 0 | 19 | 0 |
| 7 | 1.6 | 16 | 26 |
| 3 | 0.7 | 7 | 5 |
| 12 | 2.8 | 13 | 36 |
| 2 | 0.46 | 12 | 6 |
| 9 | 2.1 | 12 | 25 |
| 6 | 1.4 | 16 | 22 |
| 10 | 2.3 | 16 | 37 |
| 26 | 6.1 | 12 | 73 |
| 3 | 0.7 | 7 | 5 |
| 0 | 0 | 10 | 0 |
| 6 | 1.4 | 12 | 17 |
| 3 | 0.7 | 8 | 6 |
| 12 | 2.8 | 10 | 28 |
| 6 | 1.4 | 21 | 29 |

| Amendment Licensing Actions: 1/1/20 - 3/30/25 | Licensing Actions per year | Licensing Hours per amendment application (2) | Amendment Licensing Hours per Year |
|---|----------------------------|---|------------------------------------|
| 3 | 0.7 | 16 | 11 |
| 24 | 5.6 | 20 | 112 |
| 4 | 0.9 | 4 | 4 |
| 5 | 1.2 | 4 | 5 |
| 1 | 0.23 | 4 | 0.9 |
| 684 | 159.89 | Hours | 2572.9 |

In total this amounts to 5455.8 hours. As stated previously, a 25% buffer in hours is taken into account for difference in licensee numbers from 2019 to 2025, resulting in a final hours amount of 6819.75 hours. Assuming 2000 hours per Full Time Employee (FTE), then this results in: 3.41 FTE required for the state of Indiana.

Table 4.6-2 Staff FTE Breakdown

| Staff: | Role: | RMCP admin: | Licensing: | Inspection: | Other (non-RMCP) |
|-------------------|------------------------------|-------------|------------|-------------|------------------|
| Courtney Eckstein | RCPD | 0.25 | N/A | N/A | 0.75 |
| Adam Bowers | Radiation Support Specialist | 0.25 | N/A | N/A | 0.75 |
| Brenda Tubbs | Senior Health Physicist | 0.20 | 0.30 | 0.30 | 0.20 |
| Kaci Studer | Senior Health Physicist | 0.20 | 0.30 | 0.30 | 0.20 |
| Daisy Coffman | Health Physicist | 0.10 | 0.35 | 0.35 | 0.20 |
| Patrick Turner | Health Physicist | 0.10 | 0.35 | 0.35 | 0.20 |
| Kevin Stahl | Health Physicist | 0.10 | 0.35 | 0.35 | 0.20 |
| Total: | | 1.20 | 1.65 | 1.65 | N/A |

Table 4.6-3 FTE Comparison:

| | FTEs |
|----------------------------|-----------|
| Required based on NRC Data | 3.41 FTEs |
| Available FTE | 4.5 |

Based upon the data available from the NRC, Indiana is situated to have a sufficient number of FTEs available to run the program. The difference supports the added amount of detail in Indiana's administrative work needed to run the program such as enforcement, travel, and training which is not incorporated in the NRC data provided.

4.6.2 Qualification Program

The qualification program is described in RMCPP 5.1 *Qualification and Training*. This is attached below. Individual accomplishment of the qualification process is documented in that person's Qualification Journal. In general, individuals are trained to conduct inspections and to do license review activities through training classes and on-the-job training. Individuals maintain proficiency through on-going training that enhances licensing and inspection professional abilities. These are described in the RMCPP in Section 4.6.1 of this application. Individual completion of the qualification components is documented in that person's Qualification Journal. The Radiation Control Program Director will sign off on the qualification journals. This, too, is in Section 4.6.3 of this application.

The processes described in RMCPP 5.1 are for future staff. The qualifications of current technical staff are described in Section 4.6.3 of this application. The Radiation Control Program Director will take all steps available to replace staff that either leaves or retires from the Agreement State Program. One element of this is technical training and the qualifications of other Radiation Program Staff. This will be undertaken after the five current staff members assigned to the Radioactive Materials Program are fully qualified.

4.6.3 Current Staff Qualification Program

With the formal establishment of the Agreement State Program, qualification of the current staff will be established in a manner based on RMCPP 5.1 but modified to account for the fact that Radioactive Materials Control Program work may begin soon, even immediately, after the Agreement is established. Current Senior Health Physicists and Health Physicists in the Radioactive Materials Control Program will be deemed fully qualified as documented in writing by the Radiation Program Director. This qualification is substantiated by significant evidence which includes their completion of all the core training courses identified in RMCPP 5.1, their accompaniment of NRC inspector, or qualified inspectors from other Agreement States, on inspections of most types of licenses in Indiana, and their spending two weeks studying in person NRC staff license review activities conducted at the NRC Region III office.

Kaci Studer and Brenda Tubbs will serve as Senior Health Physicists and Daisy Coffman, Kevin Stahl, and Patrick Turner will serve as Health Physicists. All will be documented fully qualified at the time of the Agreement taking effect. This is documented in a letter from the Radiation Program Director in Appendix 4.6-1. All have documentation for their training and experience in their individual Qualification Journals. Indiana is planning on all RMCP staff to accompany the NRC, and other Agreement State Inspectors, on their inspections many more times before completion of the Agreement. All RMCP staff will spend two weeks studying license review work by the NRC at Region III before completion of the Agreement.

Table 4.6-4 Current Staff Training Completion

| RMCP Core Training Courses | Req'd For Licensing | Req'd for Inspection | License Reviewer/Inspector | | | | | | |
|--|---------------------|----------------------|----------------------------|----------|----------|----------|----------|----------|----------|
| | | | Studer | Tubbs | Coffman | Stahl | Turner | Bowers | Eckstein |
| G-108: Inspection Procedures | | Yes | 03/29/24 | 07/28/23 | 12/10/23 | 12/01/23 | 06/26/24 | | |
| G-109: Licensing Practices & Procedures | Yes | | 04/18/24 | 12/14/23 | 12/24/23 | 07/12/24 | 03/25/25 | | |
| H-117S: Introductory Health Physics | Yes | Yes | 06/10/22 | 06/10/22 | 03/02/23 | 06/19/23 | 11/21/23 | 02/06/25 | |
| G-205: Root Cause/Incident Investigation Training | | Yes | 02/17/23 | 05/05/23 | 05/03/24 | 04/25/25 | 05/16/25 | | |
| H-122S: Fundamentals of Health Physics Self Study | Yes | Yes | 08/09/22 | 06/19/22 | 03/13/23 | 08/17/23 | 11/29/23 | 04/10/25 | |
| H-122Lab: Fundamental Health Physics Labs Course | Yes | Yes | 11/04/24 | 01/27/23 | 06/16/23 | 01/26/24 | 05/24/24 | | |
| H-201: Advanced Health Physics | Yes | Yes | 06/15/24 | EXEMPT | 06/06/25 | EXEMPT | 06/15/24 | | |
| H-305: Safety Aspects of Industrial Radiography | Yes | Yes | 03/17/23 | 03/17/23 | 03/15/24 | 01/17/25 | 09/27/24 | | |
| H-308S: Transportation of Radioactive Materials Self-Study | Yes | Yes | 01/06/23 | 1/22/23 | 05/09/23 | 11/22/24 | 1/17/24 | | |
| H-317S: Medical Uses of Radiation Self Study | Yes | Yes | 07/28/23 | 04/20/24 | 08/04/23 | 01/07/25 | 03/21/24 | | |
| S-201: Materials Control & Security Systems & Principles | Yes | Yes | 08/16/24 | 08/18/23 | 08/18/23 | 05/24/24 | 08/09/24 | | |
| Specialized and Enhanced Training Courses | | | | | | | | | |
| F-104: Health Physics for | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | | |
|--|--|--|----------|----------|----------|----------|--|----------|-----|
| Uranium Recovery | | | | | | | | | |
| H-115S: Characterization and Planning for Decommissioning | | | | 12/19/24 | 10/25/24 | | | 04/11/24 | |
| H-120S: Radiological Surveys in Support of Decommissioning (MARSAME) | | | | | | | | 12/05/23 | |
| H-121S: Multi-Agency Radiation Survey and Sites Investigation Manual (MARSSIM) | | | 11/26/24 | | | | | 12/11/23 | |
| H-130Lab: Environmental Monitoring and Air Sampling for Radioactivity Lab Course | | | 09/27/24 | 09/29/23 | 04/26/24 | 05/16/25 | | 09/26/25 | |
| H-130S: Environmental Monitoring & Air Sampling for Radioactivity Self-Study | | | 11/03/23 | 09/05/23 | 12/20/23 | 11/22/23 | | 02/01/24 | |
| H-301S: Health Physics Statistics Self-Study Course | | | 01/05/23 | 07/14/22 | 01/23/24 | 08/17/23 | | 11/19/24 | |
| H-312S: Internal Dosimetry Self-Study | | | 08/28/23 | 07/21/23 | 04/12/24 | 05/28/25 | | 02/15/25 | |
| H-314: Safety Aspects of Well Logging | | | | 02/28/25 | | 05/10/24 | | 09/20/24 | |
| H-315: Irradiator Technology Course | | | N/A | N/A | N/A | N/A | | N/A | N/A |
| H-408: RESRAD OVERVIEW | | | | | | 05/15/25 | | | |
| H-412: Advanced RESRAD Training Workshop | | | | | | | | | |

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| H-413: MILDOS- Area Training Workshop | | | | | | | | | |
| H-311S: Respiratory Protection | | | | | | | | | |
| H-202S Radioactive Waste Management | | | | | | | | | |
| H-500: Visual Sampling Plan | | | | | | | | | |

4.6.4 Position Descriptions

Provided are position descriptions within the Indiana Department of Homeland Security Radioactive Materials Control Program that support the agreement state/NRC process.

Radiation Control Programs Director (RCPD):

Works to develop, promote, coordinate, and manage a statewide safe and effective Radioactive Materials and Transportation program for the state of Indiana. Manage the state materials inspection and licensing programs through audits and reviews. Assist in planning and developing training and exercises in the state.

The essential functions of this role are as follows:

Assist in developing, promoting, coordinating, and managing a statewide safe and effective Radiological Transportation Program for the state of Indiana.

Travel extensively throughout the State of Indiana, FEMA Region V, and the United States to coordinate radiological training activities that provide subject matter experts to ensure regulatory compliance and adequate radiation knowledge.

Assist in developing, preparing, and maintaining training courses and course materials for face-to-face, web-based, and customized systems.

Assist in preparing short and long-range schedules for state and local training programs, programmatic reports, evaluations, and surveys on training conducted regarding effectiveness and attainment of goals.

The job description is not designed to cover or contain a comprehensive list of activities, duties, or responsibilities that are required of the employee. Other duties, responsibilities and activities may change or be assigned at any time.

This position is exempt from overtime compensation for additional work hours which may be required to complete essential functions or other assigned work. Exempt employees may work more than 75 hours in a pay period without additional compensation and must report a minimum of 75 hours per pay period of work hours and/or paid leave taken to receive their base biweekly salary.

What You'll Need for Success:

The ideal candidate in this role should minimally have either

A bachelor's degree in health physics, nuclear engineering, nuclear physics, or radiology, or

Radiologist Technician with 5 years of experience, or

RSO with 5 years of experience, or

7+ years of radiation nuclear experience. (Related certifications and coursework may be considered for education or experience.)

Practical communication skills should be used instead of any language requiring oral or written communication.

Ability to manage multiple programs and initiatives simultaneously.

Verbal skills consistent with adult training, learning, and facilitation.

Knowledge of the National Response Framework and Homeland Security Presidential Directives 5 & 8.

Be willing to travel with appropriate accommodation.

Broad knowledge, understanding, and ability to apply various, complex, conflicting policies and regulations relating to homeland security initiatives.

Ability to make sound decisions and meet tight deadlines.

Able to perform essential functions with or without reasonable accommodation.

Responsibilities:

Reports directly to the Section Chief but typically performs with much autonomy and minimal supervision. Work to achieve agreed strategic goals, objectives, and compliance with the Indiana Homeland Security Mission and Vision.

Senior Health Physicist (S/HP):

Works to support the Radiation Programs, focusing primarily on the Radioactive Material Licensing and Inspection Program, by conducting license reviews for the licensing of materials and implementing radiation protection and security of radioactive materials through technical and administrative functions. Additionally assisting with program development, radiation safety development, responding to radiation incidents and conducting radioactive material investigations within the state.

Responsibilities:

Prepares for and conducts routine inspections of materials licensees to determine conformity with design and other criteria; observe and evaluate the adequacy of licensee controls and provisions for radiological and environmental safety; evaluate management controls, procedures and practices and their effects on the safety of operations; and observe the status of compliance with Radioactive Material Licensing requirements.

Makes recommendations regarding the need for enforcement or regulatory action, including the immediate cessation of licensee operations, escalated enforcement action, and modification, suspension, revocation, or denial of licenses. Differentiates issues that require normal versus escalated enforcement action and recommends enforcement action appropriate to the severity of the violation(s). Coordinates enforcement approaches with the Radiation Programs Director and other appropriate personnel in the Radioactive Material Licensing and Inspection Program. Develops Enforcement Panel briefing documents, including draft Notices of Violation.

Responds to and investigates reported problems, events, incidents, or unusual circumstances involving facilities and materials subject to State of Indiana licensure and regulation, and in particular, those involving materials activities.

Reviews license applications for the possession and use of byproduct and source material.

Evaluates adequacy of proposed facilities, equipment, and operational procedures to determine whether the applicant has recognized and adequately safeguarded against all hazards including excessive levels of airborne radioactivity, spread of radioactive contamination, excessive releases of radioactivity to the environment, and excessive radiation exposure to workers.

Evaluates technical qualifications of the applicant, including education, training, experience, and ability of the applicant's staff, to possess and use radioactive material in a manner that ensures public health and safety and protection of the environment. Where warranted, recommends denial of applications and substantiates reasons for such denial based on the NRC's regulatory procedures and radiation safety standards.

Determines, from the information submitted, whether the applicant's radiation protection procedures, instrumentation, facilities and equipment, and training and experience are sufficient to provide reasonable assurance that the applicant can possess and/or use radioactive material safely and in accordance with the State of Indiana requirements.

Serves as an Authorized User (AU) of radioactive materials under the agency's NRC license. As an AU will assist with training and exercises involving radioactive materials.

Travels extensively throughout the State of Indiana, to conduct licensing duties and inspections of radiation facilities.

Assists in maintaining accurate inventories of equipment and supplies.

Prepares and submits reports and critiques to the Radiation Program Director.

When needed, processes Department of Transportation Special Permits (DOT-SPs) and provides assistance with the Radiological Transportation and Radiological/Nuclear Detection programs.

May serve as a member of various task forces and committees related to the radiological program or homeland security programs.

Supports other functions of the State Fire Marshal's Office as deemed necessary by the Radiation Program Director or other management staff of the Fire Marshal's Office.

Performs other related duties, as directed. Such duties may include, but are not limited to, participating in other activities of the department as the Executive Director may deem necessary. Performing, in time of emergency or impending emergency, such duties as may contribute to the prevention, protection, response and recovery of the State, including working in the Emergency Operations Center.

Health Physicist (HP):

Works to support the Radiation Programs, focusing primarily on the Radioactive Material Licensing and Inspection Program, by conducting license reviews for the licensing of materials and implementing radiation protection and security of radioactive materials through technical and administrative functions. Additionally assisting with program development, radiation safety development, responding to radiation incidents and conducting radioactive material investigations within the state.

Responsibilities:

Prepares for and conducts routine inspections of materials licensees to determine conformity with design and other criteria; observe and evaluate the adequacy of licensee controls and provisions for radiological and environmental safety; evaluate management controls, procedures and practices and their effects on the safety of operations; and observe the status of compliance with Radioactive Material Licensing requirements

Makes recommendations regarding the need for enforcement or regulatory action, including the immediate cessation of licensee operations, escalated enforcement action, and modification, suspension, revocation, or denial of licenses. Differentiates issues that require normal versus escalated enforcement action and recommends enforcement action appropriate to the severity of the violation(s). Coordinates enforcement approaches with the Radiation Programs Director and other appropriate personnel in the Radioactive Material Licensing and Inspection Program. Develops Enforcement Panel briefing documents, including draft Notices of Violation.

Responds to and investigates reported problems, events, incidents, or unusual circumstances involving facilities and materials subject to State of Indiana licensure and regulation, and in particular, those involving materials activities.

Reviews license applications for the possession and use of byproduct and source material.

Evaluates adequacy of proposed facilities, equipment, and operational procedures to determine whether the applicant has recognized and adequately safeguarded against all hazards including excessive levels of airborne radioactivity, spread of radioactive contamination, excessive releases of radioactivity to the environment, and excessive radiation exposure to workers.

Evaluates technical qualifications of the applicant, including education, training, experience, and ability of the applicant's staff, to possess and use radioactive material in a manner that ensures public health and safety and protection of the environment. Where warranted, recommends denial of applications and substantiates reasons for such denial based on the NRC's regulatory procedures and radiation safety standards.

Determines, from the information submitted, whether the applicant's radiation protection procedures, instrumentation, facilities and equipment, and training and experience are sufficient to provide reasonable assurance that the applicant can possess and/or use radioactive material safely and in accordance with the State of Indiana requirements.

Serves as an Assistant Radiation Safety Officer for the IDHS under the IDHS/Indiana State Department of Health (ISDH) Nuclear Regulatory Commission (NRC) license. Must meet or be able to meet the education/training and experience requirements of the Nuclear Regulatory Commission to serve as an Assistant Radiation Safety Officer.

Serves as an Authorized User (AU) of radioactive materials under the agency's NRC license. As an AU will assist with training and exercises involving radioactive materials.

Serves as a liaison with the ISDH and the ISDH radiochemistry lab to include any issues involving the NRC or radiation investigations

Travels extensively throughout the State of Indiana, to conduct licensing duties and inspections of radiation facilities

Assists in maintaining accurate inventories of equipment and supplies

Prepares and submits reports and critiques to the Radiation Program Director.

When needed, processes Department of Transportation Special Permits (DOT-SPs) and provides assistance with the Radiological Transportation and Radiological/Nuclear Detection programs.

May serve as a member of various task forces and committees related to the radiological program or homeland security programs.

Supports other functions of the State Fire Marshal's Office as deemed necessary by the Radiation Program Director or other management staff of the Fire Marshal's Office.

Performs other related duties, as directed. Such duties may include, but are not limited to, participating in other activities of the department as the Executive Director may deem necessary. Performing, in time of emergency or impending emergency, such duties as may contribute to the prevention, protection, response and recovery of the State, including working in the Emergency Operations Center.

Radiation Support Specialist:

Responsibilities:

Assist in logistical management of incoming incidents, events, allegations, and requests.

Assist in the tracking of inspections and correspondence related to Agreement State Program.

Work to maintain equipment as needed for the state.

**Indiana Department of Homeland Security
Radioactive Materials Control Program**



**Radioactive Materials Control Program Procedure 5.1, Revision 0
Qualifications and Training**

Effective Date:

| Revision | Date | Description of Changes |
|-----------------|-------------|-------------------------------|
| 0 | | |
| | | |

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- 5.1-1 Health Physicist Qualification Journal

1.0 PURPOSE

1.1 Applicability

- 1.1.1 This procedure defines the minimum essential elements of training required for each Health Physicist position and additional training required for the performance of specialized activities. The procedure also details the training required to maintain qualified technical staff.
- 1.1.2 The procedure describes the Qualifications Journal maintained by/for the Health Physicist.

1.2 References

- 1.2.1 NRC Inspection Manual Chapter 1248, *Qualification Programs for Federal and State Materials and Environmental Management Programs*.
- 1.2.2 NRC Inspection Manual Chapter 1248, Appendix A, *Materials Health Physics License Review Qualification Journal*.
- 1.2.3 NRC Inspection Manual Chapter 1248, Appendix B, *Materials Health Physics Inspector Qualification Journal*.
- 1.2.4 NRC Inspection Manual Chapter 1248, Appendix F *Training Requirements and Qualification Journal for Decommissioning Inspector*.
- 1.2.5 Indiana Radioactive Materials Control Program Rules

1.3 Files

- 1.3.1 Health Physics Qualifications Journal(s)

1.4 Definitions

- 1.4.1 **Advanced training:** Training beyond the core training that is used to enhance inspector or license reviewer expertise. Not required for all Health Physicists, however it is encouraged to increase the capabilities of the individual and the program.
- 1.4.2 **Agency:** The Radioactive Materials Control Program (RMCP) of the Indiana Department of Homeland Security (IDHS or Department).
- 1.4.3 **Core Training:** Minimum classroom and on-the-job training required for an inspector or license reviewer.
- 1.4.4 **Continued education:** Education designed to update and maintain level of proficiency. Methods used may include training courses, professional meetings, review of policy and guidance documents, reading professional journals or new letters, etc.
- 1.4.5 **Inspector:** A Health Physicist qualified to plan, perform, and document an inspection of a specific category of license and where appropriate, to prepare enforcement documents and review the response to such a document for adequacy.
- 1.4.6 **Lead Inspector:** A Health Physicist qualified to plan, supervise, and document an inspection by a team of inspectors. An inspector shall not act as a lead inspector in any category of license that they are not qualified, unless being evaluated or supervised by a

qualified inspector. The lead inspector is responsible for reviewing a licensee's reply to a Notice of Violation (NOV) when a Team Inspection is conducted.

- 1.4.7 **License Reviewer:** A Health Physicist qualified to review, process, and document a specific category of licensing action. A license reviewer shall not perform a second review for any category of license for which they are not qualified.
- 1.4.8 **On-the-job Training (OJT):** A training method using structured hands-on activities to develop the required job-related knowledge and skills.
- 1.4.9 **Program Orientation:** Instructions provided to a new employee regarding state, Department, and RMCP policies, statutes, rules, and procedures.
- 1.4.10 **Refresher Training:** Additional training required after qualification that allows a staff member to maintain a "qualified" status.
- 1.4.11 **Senior Health Physicist:** A Senior Health Physicist may fulfill the duties and roles of a Health Physicist as referenced in this procedure.
- 1.4.12 **Specialized Training:** Additional training necessary for each category of radioactive material use, such as medical, industrial radiography, well logging, large irradiators, etc. Specialized training in processing allegations, medical events, over exposures, and incidents may also be necessary.
- 1.4.13 **Trainee:** A Health Physicist assigned to the Radioactive Materials Control Program, working on qualification in an inspection or license action program.

2.0 RESPONSIBILITIES

2.1 Health Physicist (HP)

- 2.1.1 Assists in the orientation of new employees in the RMCP and ensures he/she has access to copies of the Indiana Radioactive Material Control Program rules, RMCP procedures, NRC guidance and other required or relevant documents for training.
- 2.1.2 Maintains his/her personal training records and Qualifications Journals.

2.2 Senior Health Physicist (S/HP)

- 2.2.1 When qualified in each program type, is responsible for assisting trainees in becoming qualified, as assigned.
- 2.2.2 Participates in a continuing education program, refresher training, specialized training, and qualification programs, as assigned.
- 2.2.3 Also conducts responsibilities of Health Physicist

2.3 Radiation Control Program Director (RCPD)

- 2.3.1 Manages the training and qualification program.
- 2.3.2 Assures that qualified staff are available to adequately perform the RMCP licensing, inspection, and enforcement activities.
- 2.3.3 Periodically audits the RMCP training and qualification program.

3.0 PROCEDURE

IDHS and RMCP orientation shall be provided by the RMCP staff and Indiana State Personnel Department staff. Attachment 5.1-1 *Health Physicist Qualification Journal* is used to document self-study, formal, on-the-job, core, specialized, enhancement, refresher training, and continuing education to satisfy the requirements of NRC Inspection Manual Chapter 1248, *Qualification Programs for Federal and State Materials and Environmental Management Programs* and its appendices to qualify and maintain qualification as an Inspector and License Reviewer.

The qualification journal contains a detailed series of activities and study areas. The Health Physicist will complete the activities in the qualification journal usually within two years after hire. If more than two years are needed to complete their qualification journal, the RCPD may grant an extension. The RCPD may designate qualified staff members to sign and verify qualification for the training activities completed.

3.1 Required Initial Training

The self-study, core training, and on-the-job training described below are required for all Health Physicists assigned to the RMCP to perform inspections of material licensee's facilities and to process radioactive material licensing actions. Credit for training may be granted by the RCPD for applicable education, training, and/or experience received prior to joining the RMCP.

3.1.1 Self-Study

The trainee is responsible for completing the following activities and for having completion signed off in their Qualification Journal by the RCPD or assignee, as soon as possible. The new employee should be encouraged to ask questions of and assistance from other Health Physicists with more experience in the RMCP.

- Review of Indiana Radioactive Materials Control Rules.
- Review of RMCPPs.
- Review of appropriate NRC Regulatory Guides.
- Review of NUREG-1556, NUREG-1757 and NUREG-2155.
- Review of current and historical (as needed) RMCP reading file.
- Review of appropriate NRC Information Notices.
- Review of appropriate RMCP Information Notices.

3.1.2 Core Training

The following courses are fundamental formal classroom training requirements. Attendance at these courses will be scheduled, as openings become available, through the NRC or equivalent training courses. The RCPD may grant an exemption to courses based on previous education and/or training.

- Medical Uses of Radiation (H-317S).
- Fundamental Health Physics Self-Study (H-122S).
- Fundamental Health Physics Lab (H-122L).
- Transportation of Radioactive Materials Self-Study (H-308S).
- Inspection Procedures (G-108).
- Licensing Practices & Procedures (G-109).

- Industrial Radiography (H-305).
- Materials Control & Security Systems & Principles (S-201).
- Advanced Health Physics (H-201).
- Root Cause/Incident Investigation Training (G-205).

3.1.3 On-the-Job Training (OJT): The following activities, Inspection (I) and Licensing (L), shall be conducted in concert with a qualified inspector or license reviewer at a specific category licensee facility or on a specific category license action. Items (I) and (L) shall be completed for each of the principal categories of licenses and licensing actions. These are identified in the table in Section 3.2 below. The individual actions shall be conducted at different licensee facilities or on different license actions. The trainee shall inspect, or process license actions as follows:

3.1.3.1 Type (I) Inspection of Specific Categories of Licensees

- 3.1.3.1.1 Trainee observes the qualified inspector preparing for and conducting an inspection. During the inspection, the trainee may be assigned minor duties that don't interfere with the observation of the inspection.
- 3.1.3.1.2 Under the supervision of the qualified inspector, the trainee prepares for, conducts, and records findings for assigned parts of the inspection. This step should be conducted with a least two different types of licenses.
- 3.1.3.1.3 Under the observation of the RCPD, or other RMCP staff as assigned, the trainee prepares for and conducts an inspection, including recording inspection findings and preparing enforcement correspondence. If problems are observed, this activity should be repeated.

3.1.3.2 Type (L) Processing of Specific Categories of License Licensing Actions

- 3.1.3.2.1 The trainee is provided examples of standard licenses, access to the NUREG-1556 Series, Indiana Radioactive Materials Control Rule, standard form letters, standard deficiency paragraphs, reviewer checklists, and standard license formats and assigned directed review of selected licensing case work. Directed review consists of:
 - 3.1.3.2.1.1 Trainee observes the review processing an application for a license or a license renewal in entirety.
 - 3.1.3.2.1.2 Trainees will be assigned sample licensing actions for evaluation.
 - 3.1.3.2.1.3 Trainees shall be assigned processing of selected license actions under the supervision of a reviewer.
- 3.1.3.2.2 Under the supervision of a reviewer, the trainee processes a license application or a license renewal in entirety, including preparing the license, tying down all license conditions, and recommending the license for signature to the license reviewer. This step should be conducted twice with different reviewers and licensing actions.
- 3.1.3.2.3 Under the observation of the RCPD or assignee, the trainee processes an application for license or an application for license renewal in entirety,

including preparing the license, tying down all license conditions, and recommending the license to the RCPD or assignee for signature. If problems are identified this step may be repeated.

3.2 Qualified Inspector and/or License Reviewer

3.2.1 The trainee becomes interim qualified as an inspector or license reviewer in one or more of the various core program categories as described in the following table by completing the classroom, on-the-job training, and supervised inspections as described in subsection 3.1 items have been completed and signed off in the trainee’s Qualification Journal. A trainee becomes a fully qualified inspector upon fully completing all core training areas. The divisions below are meant to be a snapshot of what could benefit an employee in inspecting or licensing a program. It is not meant to be entirely inclusive. For example, a broad scope license may require knowledge of Part 37 Security requirements depending on the uses of the license.

Qualified Inspector Core Program Training Breakdown

| <u>Courses Training Completed</u> | <u>Program Description</u> | <u>Qualified Program</u> |
|---|--|--|
| Advanced Health Physics (H-201) Inspection Procedures (G-108) Medical Uses of Radiation (H-317S) Transportation of Radioactive Materials (H-308) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) Materials Control & Security Systems & Principles (S-201) | Medical Institution – (Broad – A, B, & C) WD required WD not required Mobile HDR/Teletherapy Other Medical Uses Veterinary | Inspection – 2110-2113 Inspection – 2120/2200 Inspection – 2121/2201 Inspection – 2220/2301 Inspection – 2230/2300 Inspection – 2231 Inspection – 2240 Inspection – 2400 Inspection – 3510 |
| Advanced Health Physics (H-201) Inspection Procedures (G-108) Medical Uses of Radiation (H-317S) Transportation of Radioactive Materials (H-308) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) | Nuclear Pharmacies | Inspection – 2500 |
| Advanced Health Physics (H-201) Inspection Procedures (G-108) Safety Aspects of Industrial Radiography (H-305) Medical Uses of Radiation (H-317S) Transportation of Radioactive Materials (H-308) | Industrial Radiography Gamma Knife | 3310/3320 2310 3219 |

| <u>Courses Training Completed</u> | <u>Program Description</u> | <u>Qualified Program</u> |
|--|--|---|
| Materials Control & Security Systems & Principles (S-201) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) | | |
| Advanced Health Physics (H-201) Licensing Practices & Procedures (G-109) Transportation of Radioactive Materials (H-308) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) Materials Control & Security Systems & Principles (S-201) | All Broad Scopes – except Medical Fixed & Portable Gauges In-Vitro | Licensing – 1100-1120, 3610-3630, 3211-3213 Licensing – 3120/3121 Licensing – 2410 |
| Advanced Health Physics (H-201) Licensing Practices & Procedures (G-109) Medical Uses of Radiation (H-317S) Transportation of Radioactive Materials (H-308) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) Materials Control & Security Systems & Principles (S-201) | Medical Institution – (Broad – A, B, & C) WD required WD not required Mobile HDR/Teletherapy Other Medical Uses Veterinary | Licensing – 2110-2113 Licensing – 2120/2200 Licensing – 2121/2201 Licensing – 2220/2301 Licensing – 2230/2300 Licensing – 2240 Licensing – 2400 Licensing – 3510 |
| Advanced Health Physics (H-201) Licensing Practices & Procedures (G-109) Medical Uses of Radiation (H-317S) Transportation of Radioactive Materials (H-308) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) | Nuclear Pharmacies | Licensing – 2500 |

| <u>Courses Training Completed</u> | <u>Program Description</u> | <u>Qualified Program</u> |
|--|---|---|
| Advanced Health Physics (H-201) Licensing Practices & Procedures (G-109) Safety Aspects of Industrial Radiography (H-305) Medical Uses of Radiation (H-317S) Transportation of Radioactive Materials (H-308) Materials Control & Security Systems & Principles (S-201) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) | Industrial Radiography Gamma Knife | Licensing – 3310/3320 Licensing – 2310 |

3.3 Specialized Training

3.3.1 Specialized training is not limited to those listed below. This list supports programs that have previously operated in Indiana under reciprocity licenses, yet at time of writing do not have an Indiana based license. Additionally, irradiators, aside from self-shielded, are not included in currently in training, if this need arises, this section can be revisited. In addition to the above Type I and/or Type L training and OJT requirements, the inspector and/or reviewer may become qualified in the following programs on completion of additional training, as follows:

Specialized Training Program Code Breakdown

| <u>Training Completed</u> | <u>Program Description</u> | <u>Qualified Program</u> |
|--|----------------------------|---|
| Inspection Procedures (G-108) Licensing Practices and Procedures (G-109) Safety Aspects of Well Logging (H-314) Materials Control & Security Systems & Principles (S-201) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) Transportation of Radioactive Materials (H-308) | Well-Logging | Inspection & Licensing – 3110 |
| Advanced Health Physics (H-201) Inspection Procedures (G-108) Licensing Practices and Procedures (G-109) | Decommissioning services | Decommissioning Services Inspection & Licensing – 3219 |

| | | |
|---|--|--|
| Characterization and Planning for Decommissioning (H-115S) Fundamental Health Physics (H-122S) Fundamental Lab (H-122L) Introductory Health Physics (H-117S) | | |
|---|--|--|

3.3.2 In order to enhance the knowledge of the inspectors and reviewers and to improve the program, selected personnel shall complete the following training:

- 3.3.2.1 Internal Dosimetry (H-312S)
- 3.3.2.2 Environmental Monitoring & Air Sampling for Radioactive Materials (H-130S)
- 3.3.2.3 Health Physics Statistics (H-301S)
- 3.3.2.4 Radioactive Waste Management (H-202S)
- 3.3.2.5 Respiratory Protection (H-311S)
- 3.3.2.6 MARSAME (H-120S)
- 3.3.2.7 MARSSIM (H-121S)
- 3.3.2.8 Visual Sampling Plan (H-500)
- 3.3.2.9 RESRAD Overview (H-408)
- 3.3.2.10 Advanced RESRAD Training Workshop (H-412)
- 3.3.2.11 MILOS Area Training Workshop (H-413)

3.4 Refresher Training

- 3.4.1 Qualified materials license reviewers and inspectors must maintain their qualification by completing 24 hours of refresher training in a requalification schedule of 24 months. The beginning of each requalification cycle will be determined using the month and year the inspector completed their initial qualification.
- 3.4.2 Refresher training may relate to various health and safety or security topics. Examples of training that may be considered include external training courses such as those for Preventative Radiological Nuclear Detection (PRND) or Radiological Emergency Preparedness (REP), directed self-study courses related to health and safety of security from the Health Physics Society (HPS), Conference of Radiation Control Program Directors (CRCPD), or other training approved by the RCPD.

Examples of other training that may be considered include:

- 3.4.2.1 NRC-sponsored technical training
- 3.4.2.1 State sponsored technical training
- 3.4.2.1 Webinars sponsored by NRC, State or vendors

- 3.4.2.1 External training courses provided by vendors or universities
- 3.4.2.1 Lectures given at professional organizations
- 3.4.2.1 State developed presentations in subjects related to health and safety, security, or regulation of radioactive materials

NOTE: License reviewers and inspectors may retake a course they had taken previously as refresher training. The RCPD should consider whether it would be beneficial for the license reviewer to retake the course, whether there have been changes in technology, regulations, or if the course has changed considerably since the last time the license reviewer took the course before allowing a course to be retaken as refresher training. If the RCPD allows the license reviewer to retake the course, the license reviewer must complete and pass the example, if the course has one, to receive credit for the course.

Before taking refresher training, Radioactive Materials Control Program staff should receive approval from the RCPD to confirm that the training will be credited as refresher training.

4.0 RECORDS

4.1 Health Physicist Qualification Journal

Electronic records are found in Web-Based Licensing

5.0 ATTACHMENTS to RMCP 5.1

Attachment 5.1-1 Health Physics Qualification Journal

Applicability:

This Qualification Journal implements Radioactive Materials Control Program Procedure Section 5. 1, *Qualifications and Training* by documenting the qualifications and training of Radioactive Materials Control Program (RMCP) Health Physicists performing inspection at materials licensed facilities and processing licensing actions for radioactive materials licensees. The Qualifications Journal provides traceable documentation that the minimum requirements are met for each RMCP Health Physicist.

The Qualification Journal consists of a series of qualification guides and signature blocks. Each signature block is used to document task completion as indicated by the appropriate signature. The corresponding qualification guide establishes the minimum knowledge levels or areas of study that must be completed for each signature block. The trainee should complete the self-study section of the qualifications before starting on the other sections.

**Indiana Department of Homeland Security
Radioactive Materials Control Program**



**ATTACHMENT 5. 1-1
Radioactive Materials Control Program
Health Physicist Qualification Journal**

NAME: _____

TITLE: _____

SELF STUDY

IDHS/RMCP ORIENTATION

| | | |
|---|---------|-------|
| A. New Employee Processing | _____ | _____ |
| | Trainee | Date |
| B. Facility Tour and Introductions | _____ | _____ |
| | RCPD | Date |
| C. Review of IDHS and RMCP organization | _____ | _____ |
| | Trainee | Date |
| D. Discussion of IDHS and RMCP organization | _____ | _____ |
| | RCPD | Date |

INDIANA RADIOACTIVE MATERIALS CONTROL REGULATIONS

| | | |
|--|---------|-------|
| A. Familiarization with 290 IAC 3 | _____ | _____ |
| | Trainee | Date |
| B. Discussion of contents of 290 IAC 3 | _____ | _____ |
| | RCPD | Date |

RMCP POLICIES AND PROCEDURES

| | | |
|---|---------|-------|
| A. Familiarization with RMCP Policies and Procedures | _____ | _____ |
| | Trainee | Date |
| B. Discussion of contents of RMCP Policies and Procedures | _____ | _____ |
| | RCPD | Date |

REGULATORY GUIDANCE

| | | |
|---|---------|-------|
| A. Review of Selected IDHS RMCP Regulations | _____ | _____ |
| | Trainee | Date |
| B. Discussion of Selected IDHS RMCP Regulations | _____ | _____ |
| | RCPD | Date |
| C. Review of Selected NRC Bulletins and Information Notices | _____ | _____ |
| | Trainee | Date |
| D. Discussion of Selected NRC Bulletins and Information Notices | _____ | _____ |
| | RCPD | Date |

NUREG-1556, *Consolidated Guidance About Materials Licenses*

| | | |
|-------------------------|---------|-------|
| A. Review of NUREG-1556 | _____ | _____ |
| | Trainee | Date |

| | | |
|-----------------------------|-------|-------|
| B. Discussion of NUREG-1556 | _____ | _____ |
| | RCPD | Date |

NUREG-1757, *Consolidate Decommissioning Guidance*

| | | |
|-----------------------------|---------|-------|
| A. Review of NUREG-1757 | _____ | _____ |
| | Trainee | Date |
| B. Discussion of NUREG-1757 | _____ | _____ |
| | RCPD | Date |

NUREG-2155, *Implementation Guidance for 10 CFR Part 37*

| | | |
|-----------------------------|---------|-------|
| A. Review of NUREG-2155 | _____ | _____ |
| | Trainee | Date |
| B. Discussion of NUREG-2155 | _____ | _____ |
| | RCPD | Date |

FORMAL TRAINING

The basis for exemption to the specific course should be appended to the back of this document.

CORE TRAINING

A. Medical Uses of Radiation Self-Study (H-317S)

Dates Attended: _____ RCPD _____

B. Fundamentals of Health Physics Self-Study (H-122S)

Dates Attended: _____ RCPD _____

C. Transportation of Radioactive Materials Self-Study (H-308S)

Dates Attended: _____ RCPD _____

D. Inspection Procedures (G-108)

Dates Attended: _____ RCPD _____

E. Licensing Practices & Procedures (G-109)

Dates Attended: _____ RCPD _____

F. Safety Aspects of Industrial Radiography (H-305)

Dates Attended: _____ RCPD _____

G. Materials Control & Security Systems & Principles (S-201)

Dates Attended: _____ RCPD _____

H. Advanced Health Physics (H-201)

Dates Attended: _____ RCPD _____

I. Root Cause/Incident Investigation Training (G-205)

Dates Attended: _____ RCPD _____

J. Introductory Health Physics (H-117S)

Dates Attended _____ RCPD _____

K. Fundamental Health Physics Lab (H-122Lab)

Dates Attended _____ RCPD _____

SPECIALIZED/ENHANCEMENT TRAINING

L. Irradiator Technology Course (H-315)
Dates Attended _____ RCPD _____

M. Safety Aspects of Well Logging (H-314)
Dates Attended _____ RCPD _____

N. MARSAME: Multi-Agency Radiation Survey Assessment of Materials and Equipment (H-120S)
Dates Attended _____ RCPD _____

O. Characterization and Planning for Decommissioning (H-115S)
Dates Attended _____ RCPD _____

P. Internal Dosimetry Self-Study (H-312S)
Dates Attended _____ RCPD _____

Q. Environmental Monitoring & Air Sampling for Radioactivity Self-Study (H-130S)
Dates Attended _____ RCPD _____

R. MARSSIM: Multi-Agency Radiation Survey and Sites Investigation Manual (H-121S)
Dates Attended _____ RCPD _____

S. Health Physics for Uranium Recovery (F-104)
Dates Attended _____ RCPD _____

T. Environmental Monitoring & Air Sampling for Radioactivity Lab (H-130Lab)
Dates Attended _____ RCPD _____

U. Health Physics Statistics Self-Study (H-301S)
Dates Attended _____ RCPD _____

V. RESRAD OVERVIEW (H-408)
Dates Attended _____ RCPD _____

W. Advanced RESRAD Training Workshop (H-412)
Dates Attended _____ RCPD _____

X. MILDOS-Area Training Workshop (H-413)
Dates Attended _____ RCPD _____

Y. Visual Sampling (H-500)
Dates Attended _____ RCPD _____

REFRESHER TRAINING

A.
Dates Attended _____ RCPD _____
Hours:

B.
Dates Attended _____ RCPD _____
Hours:

C.
Dates Attended _____ RCPD _____
Hours:

D.
Dates Attended _____ RCPD _____
Hours:

E.
Dates Attended _____ RCPD _____
Hours:

F.
Dates Attended _____ RCPD _____
Hours:

G.
Dates Attended _____ RCPD _____
Hours:

H.
Dates Attended _____ RCPD _____
Hours:

I.
Dates Attended _____ RCPD _____
Hours:

**ON-THE-JOB TRAINING
INSPECTIONS**

A. Program 01100-01120 Academic

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 01100-01120 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 01100-01120 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 01100-01120 licensee.

Licensee: _____

RCPD: _____

Date: _____

B. Program 02110 – Medical Institution – Broad Scope

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02110 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02110 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02110 licensee.

Licensee: _____

RCPD: _____

Date: _____

C. Program 02120 – Medical Institution Written Directive Required

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02120 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02120 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02120 licensee.

Licensee: _____

RCPD: _____

Date: _____

D. Core Program 02121 – Medical Institution Written Directive Not Required

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02121 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02121 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02121 licensee.

Licensee: _____

RCPD: _____

Date: _____

E. Core Program 02230/02300 – HDR or Teletherapy

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02230/02300 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02230/02300 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02230/02300 licensee.

Licensee: _____

RCPD: _____

Date: _____

F. Core Program 02231 – Medical Mobile Services Written Directive Required

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02231 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02231 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02231 licensee.

Licensee: _____

RCPD: _____

Date: _____

G. Core Program 02240 – Emerging Technologies

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02240 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02240 licensee inspections

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02240 licensee.

Licensee: _____

RCPD: _____

Date: _____

H. Core Program 02400 – Veterinary Nonhuman Subjects

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02400 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02400 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02400 licensee.

Licensee: _____

RCPD: _____

Date: _____

I. Core Program 02410 – In-Vitro Testing Laboratories

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02410 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02410 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02410 licensee.

Licensee: _____

RCPD: _____

Date: _____

J. Core Program 02500 – Nuclear Pharmacy

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 02500 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 02500 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 02500 licensee.

Licensee: _____

RCPD: _____

Date: _____

K. Core Program 03121 – Measuring Systems – Portable Gauges

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 03121 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 03121 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 03121 licensee.

Licensee: _____

RCPD: _____

Date: _____

L. Core Program 03219 – Decontamination Services

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 03219 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 03219 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 03219 licensee.

Licensee: _____

RCPD: _____

Date: _____

M. Core Program 03310/03320 – Industrial Radiography

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 03310/03320 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 03310/03320 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 03310/03320 licensee.

Licensee: _____

RCPD: _____

Date: _____

N. Core Program 03510 – Irradiators Self-Shielded less than or equal to 10,000 Curies

- 1) Trainee observes an Inspector preparing for and conducting an inspection of a Program 03510 licensee.

Licensee: _____

Inspector: _____

Date: _____

- 2) Under the supervision of an Inspector, Trainee prepares for, conducts and records findings of selected portions of at least two Program 03510 licensee inspections.

Licensee: _____

Inspector: _____

Date: _____

Licensee: _____

Inspector: _____

Date: _____

- 3) Under the observation of the RCPD, or their designee, the Trainee prepares for and conducts an inspection, including recording of inspection findings and preparing, as necessary, enforcement correspondence for a Program 03510 licensee.

Licensee: _____

RCPD: _____

Date: _____

Licensing

A. Program 01100-01120 Academic

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 01100-01120 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 01100-01120 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 01100-01120 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____ Date: _____
Reviewer: _____

License: _____ Date: _____
Reviewer: _____

- 3) The Trainee shall process a Program 01100-01120 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____ Date: _____
RCPD: _____

B. Program 02110 – Medical Institution Broad Scope

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02110 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02110 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02110 applications for license or applications for a license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02110 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

C. Program 02120 – Medical Institution Written Directive Required

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02120 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02120 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02120 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02120 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

D. Program 02121 – Medical Institution Written Directive Not Required

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02121 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned to process three to five selected Program 02121 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02121 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02121 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

E. Program 02230 – High-Dose Rate Remote Afterloader

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02230 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02230 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02230 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02230 application for license of license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

F. Program 02231 – Mobile Medical Services Written Directive Required

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02231 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02231 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02231 applications for license or applications for a license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02231 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

G. Program 02240 – Medical Therapy Other Emerging Technologies

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02240 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02240 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02240 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02240 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

H. Program 02400 – Veterinary Nonhuman Subjects

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02400 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02400 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02400 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02400 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

I. Program 02410 – In-Vitro Testing Laboratories

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02410 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02410 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02410 applications for license or applications for a license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02410 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

J. Program 02500 – Nuclear Pharmacy

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 02500 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 02500 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 02500 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 02500 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

K. Program 03121 – Measuring Systems – Portable Gauges

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 03121 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 03121 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee processes two Program 03121 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 03121 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

L. Program 03219 – Decontamination Services

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 03219 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 03219 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 03219 applications for license or applications for a license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 03219 application for a license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

M. Program 03310/03320 – Industrial Radiography

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 03310/03320 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 03310/03320 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 03310/03320 applications for license or applications for a license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 03310/03320 application for license of license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

N. Program 03510 – Irradiators Self Shielded less than or equal to 10,000 Curies

- 1) Trainee is assigned directed review of selected licensing casework and observes a License Reviewer process a Program 03510 application for license or a license renewal in entirety.

Under supervision of a License Reviewer, the Trainee shall be assigned processing of three to five selected Program 03510 amendments.

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

License: _____ Amendment Type: _____
Reviewer: _____ Date: _____

- 2) Under the supervision of License Reviewers, Trainee process two Program 03510 applications for license or applications for license renewal in entirety and recommends the license for signature.

License: _____
Reviewer: _____ Date: _____

License: _____
Reviewer: _____ Date: _____

- 3) The Trainee shall process a Program 03510 application for license or license renewal in entirety, including preparing the license, tying down all license conditions and recommending the license to the RCPD for signature.

License: _____
RCPD: _____ Date: _____

Qualification

| Training Completed | Date | OJT Completed | Date | Qualified Program | Date |
|--------------------|------|---------------------------|------|--|------|
| Inspections | | | | | |
| | | All Broad – Except Med | | 01100-01120, 03610- 03630, 03211-03213 | |
| | | Fixed & Port. Gauges | | 03120/03121 | |
| | | In-Vitro | | 02410 | |
| | | Med Inst. – (Broad) | | 02110-02113 | |
| | | WD not required | | 02121/02201 | |
| | | WD required | | 02120/02200 | |
| | | Mobile | | 02220/02231 | |
| | | HDR/Teletherapy | | 02230/02300 | |
| | | Other Med Uses | | 02240 | |
| | | Veterinary | | 02400 | |
| | | Nuclear Pharmacy | | 02500 | |
| | | Ind. Radiography | | 03310/03320 | |
| | | Gamma Knife | | 02310 | |
| | | Decomm. Facilities | | 03900 | |
| | | Decon Services | | 03219 | |

Licensing

| | | | | | |
|--|--|---------------------------|--|--|--|
| | | All Broad – Except Med | | 01100-01120, 03610- 03630, 03211-03213 | |
| | | Fixed & Port. Gauges | | 03120/03121 | |
| | | In-Vitro | | 02410 | |
| | | Med Inst. – (Broad) | | 02110-02113 | |
| | | WD not required | | 02121/02201 | |
| | | WD required | | 02120/02200 | |
| | | Mobile | | 02220/02231 | |
| | | HDR/Teletherapy | | 02230/02300 | |
| | | Other Med Uses | | 02240 | |
| | | Veterinary | | 02400 | |
| | | Nuclear Pharmacy | | 02500 | |
| | | Ind. Radiography | | 03310/03320 | |
| | | Gamma Knife | | 02310 | |
| | | Decomm. Facilities | | 03900 | |
| | | Decon Services | | 03219 | |

Inspector _____ is fully qualified as of _____(date).

Signed:_____ Role:_____ Date:_____

**Indiana Department of Homeland Security
Radioactive Materials Control Program**



**Appendix 4.6-1
Current Staff Resumes**

Appendix 4.6-1 Current Staff Resumes

| Kaci E. Studer – Senior Health Physicist | |
|---|---|
| Work Experience | |
| 05/2022 – Present | <p>Senior Health Physicist – Indiana Department of Homeland Security</p> <ul style="list-style-type: none"> • Developing the State of Indiana Agreement State Program • Attending training for the radioactive materials control program, including licensing and inspection • Shadowing NRC, and other agreement state, inspectors on various licensee inspections • Developing and providing training to first responders in radiation safety and response • Preparing DOT special permits for radiological shipments • Assisting with Preventative Radiological/Nuclear Detection details |
| 10/2020 – 05/2022 | <p>Equipment Custodian – Summit Exercise and Training</p> <ul style="list-style-type: none"> • Contract support to the United States Department of Homeland Security, Countering Weapons of Mass Destruction Office, Mobile Deployment Detection Program • Maintain chemical, biological, nuclear, and radiological detection equipment • Provide just-in-time training in equipment usages and utilization for chemical, biological, nuclear, and radiological detection equipment • Provide subject matter expertise to federal, state, and local partners during security operations • Serve as a liaison between state and local clients and federal agencies during security operations |
| 06/2018 – 10/2020 | <p>Radiation Program Director – Indiana Department of Homeland Security</p> <ul style="list-style-type: none"> • Serve as Radiation Safety Officer on Nuclear Regulatory Commission license for the Indiana Department of Homeland Security and Indiana State Department of Health. Develop and administer comprehensive radiation safety programs for the safe use of radioactive material, while ensuring worker dose is within federal regulations and as low as reasonably achievable • Serve as the State Liaison Officer to the Nuclear Regulatory Commission for the State of Indiana to assure clear and frequent communication between the State of Indiana and NRC • Provide oversight of program budgets in collaboration with procurement and direct staff • Assist in the development of business proposals (including staffing requirements, direct cost, benefit analysis, etc.) for State of Indiana to become a Nuclear Regulatory Commission Agreement State • Develop and deliver training for state and local emergency responders regarding radiation basics, radiation protection, radiation transportation, radiation detection, and radiation response |

| | |
|-------------------|--|
| | <ul style="list-style-type: none"> • Serve as point of contact and subject matter expert for local and state agencies on radiation protection, radioactive materials, and radiation safety during both daily operations and in emergency response situations |
| 04/2014 – 06/2018 | <p>Radiological Transportation Program Manager – Indiana Department of Homeland Security</p> <ul style="list-style-type: none"> • Provided subject matter expertise to security efforts at large public events and venues. Examples include NCAA Men’s Final Four, Indianapolis 500, Conference of Mayors, etc. • Developed and delivered training for state and local emergency responders regarding Radiation Basics, Radiation Protection, Radiation Transportation, Radiation Detection, and Radiation Response • Processed Department of Transportation Special Permits for the one-way transport of materials not known to be radioactive but found to be radioactive • Conducted investigations of potential radioactive materials as detected by radiation monitoring devices at industrial/commercial facilities, as well as various citizen concerns |
| Education | |
| 05/2014 | <p>Master of Public Health, Environmental Health; Graduate Certificate – Emergency Preparedness and Homeland Security University of Illinois Springfield</p> |
| 05/2006 | <p>B.S. Radiological Science - Avila University</p> |

| Brenda D. Tubbs – Senior Health Physicist | |
|--|--|
| Work Experience | |
| 04/2023 – Present | Senior Health Physicist – Indiana Department of Homeland Security <ul style="list-style-type: none"> • Assisting with the development of the Indiana Agreement State program. • Training for radioactive materials control program licensing and inspection. • Shadowed NRC inspectors on various licensee inspections. |
| 04/2022 – 04/2023 | Health Physicist – Indiana Department of Homeland Security <ul style="list-style-type: none"> • Training for radioactive materials control program licensing and inspection. • Shadowed NRC inspectors on various licensee inspections. • Prepared DOT special permits for radiological shipments. • Assisted with RND details |
| 2008 – 04/2023 | Trooper – Indiana State Police <ul style="list-style-type: none"> • Level VI (HRCQ Transuranic waste) inspector/Train-the-Trainer • Compliance Review Safety Investigator • North American Standard Associate Instructor General Hazardous Materials, Cargo Tank Inspection, Other Bulk Packaging pertaining to 10 CFR 49 • Commercial Motor Vehicle inspector • Indiana Law Enforcement Academy Primary Instructor • Maintained all required LEO certifications as well as all certifications required by the Commercial Vehicle Enforcement Division of the Indiana State Police |
| Education | |
| 12/2021 | Master of Health Physics – Illinois Institute of Technology |
| 12/2015 | B.G.S. – Indiana University East |

| Kevin A. Stahl – Health Physicist | |
|--|--|
| Work Experience | |
| 05/2023 – Present | <p>Health Physicist – Indiana Department of Homeland Security</p> <ul style="list-style-type: none"> • Assist in annual program reviews of State NRC License • Lead waste management and disposal of IDHS radioactive materials • Conduct source inventory and leak testing • Serve as equipment and technical expertise for RND event missions. • Assist in giving radioactive emergency response training to first responders throughout the state • Conduct investigations of rejected or reported radioactive material |
| 08/2020 – 05/2023 | <p>EHS Manager, RSO - Commercial Manufacturing Center; EHS Manager, RSO - Innovation Center; RSO - Nuclear Pharmacy; - Cardinal Health Centers for Theragnostic Advancement</p> <ul style="list-style-type: none"> • Serve as RSO for three facilities • Conduct annual program reviews • Train new hires for radiation safety and handling procedures • Manage dosimetry of 100 employees • Conduct dose reconstruction and investigations • Manage calibration and daily testing of detection instrumentation • Serve as SME for dose calibrators, liquid scintillation counters and radioactive material shipping • Trained as backup nuclear pharmacy driver • Develop hot cell shielding requirements for Ac-225 production line • Created a functional glovebox system for opening a welded container of radioactive thorium safely, allowing for remote handling and transfer into a hotcell line • Maintain inventory and leak tests of several different isotopes. • Train new Authorized Users • Update and amend NRC licenses • Serve as SME for effluent monitoring system for 1 Ra-223 system, and 2 Th-228 systems |
| 08/2018 – 05/2019 | <p>Health Physics Intern – Purdue University</p> <ul style="list-style-type: none"> • Conduct laboratory wipe and surveys as required by NRC license. • Conduct liquid scintillation testing of contaminated equipment for release • Construct and maintain a liquid HPGe system for specific research projects and assessments • Assist in decommissioning of lab spaces after radioactive use was completed • Designed the shielding around a new fluoroscopy surgery suite for biomedical engineering building |

| Education | |
|------------------|--|
| 05/2019 | Master of Health Physics – Purdue University |
| 05/2018 | B.S. Nuclear Engineering – Purdue University |

| Daisy M. Coffman – Health Physicist | |
|--|--|
| Work Experience | |
| 02/2023 – Present | Health Physicist – Indiana Department of Homeland Security <ul style="list-style-type: none"> • Training for Radioactive Materials Program Inspection and Licensing • Complete and review online applications for Indiana Radioactive Materials registrations • Work RND events for Public Health protection with Indianapolis Metro Police Department • Develop and review Indiana agreement state application |
| 05/2022 – 08/2022 | Health Physics Intern – Stan A. Huber Consultants Inc. <ul style="list-style-type: none"> • Supervision of transportation and disposal contractor to ensure compliance with site radioactive materials license conditions and regulations • Analyzed work area and site perimeter air sampling • Performed radiological soil sampling via XRF and gamma spectroscopy • Performed weekly clean area surveys of support zone and perimeter dose rate surveys |
| Education | |
| 12/2022 | B.S. Radiological Health Sciences, Minor in Physics – Purdue University |

| Patrick J. Turner – Health Physicist | |
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| Work Experience | |
| 11/2023 – Present | Health Physicist – Indiana Department of Homeland Security <ul style="list-style-type: none"> • Work RND events for Public Health protection with Indianapolis Metro Police Department • Develop and review Indiana agreement state application • Training for radioactive materials control program licensing and inspection • Shadowed NRC inspectors on various licensee inspections |
| 05/2023 – 11/2023 | Environmental Technician - Eli Lilly and Co. <ul style="list-style-type: none"> • Lab packed chemicals for disposal • Prepared hazardous waste for highway transportation • Prepared hazardous waste manifests |
| Education | |
| 05/2023 | B.S. Physics – Ball State University |

Courtney D. Eckstein – Radiation Programs Director

Work Experience

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| 11/2022 – Present | <p>Radiation Program Director – Indiana Department of Homeland Security</p> <ul style="list-style-type: none">• Oversees Radiological/Nuclear response at the state level for Indiana including management of 9 team members, budgeting 5 programs, and maintaining 3 response plans• Assist in Radiation/Nuclear detection (RND) operations in Indiana as Team Lead with IMPD. Partnered on projects with DARPA SIGMA+• Works with Department of Energy official visitors briefing them on state radiation/nuclear missions and overviews of Indiana’s programs with an interpreter• Oversees Indiana’s Radioactive Materials Control Program and oversaw all activities in making Indiana an Agreement State. The Agreement is to be signed in 2026• Rebuilt Indiana’s Radiology program 2026-2027• Oversees Radiological Emergency Preparedness Program (REP)• Oversees Indiana’s Radioactive Transportation Program that tracks Category 1 and 2 shipments through the State• Regularly communicates with NRC, FEMA, CWMD, DOE, and Nuclear Power Utilities• FEMA Region V delegate for National Radiological Emergency Preparedness committee (NREP)• Governor’s Representative for Part 37, Council of State Governor’s - Midwestern Radioactive Materials Transportation Project, and to the NRC for materials and reactors. 2025 was elected Co-Chair of the CSG-Midwest• Brief senior and executive leadership on nuclear safety, Indiana’s Agreement State status, and nuclear energy expansion in Indiana• A senior planner and player in the largest full-scale exercise in the United State, Cobalt Magnet 25• Works extensively with Law Enforcement, First Responders, FBI, and 53rd CST for WMD response and Drone interdiction• Authorized User on Indiana’s NRC license, regularly using Indiana’s Radiation Sources• Dose Monitoring experience for Indiana’s Radiation Team |
| 07/2021 – 02/2023 | <p>REP Program Coordinator – Indiana Department of Homeland Security</p> <ul style="list-style-type: none">• Liaison between four nuclear powerplants for Ingestion Pathways in Indiana – two in Illinois, two in Michigan• Regularly communicate with FEMA• Assist Radiation Program Director with NRC materials |

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| | <ul style="list-style-type: none"> • Work with stakeholders to develop, maintain, and revise the REP (Radiological Emergency Preparedness) plan for the state of Indiana • Assist regularly with RND missions for Secure the City and assist in transportation of radioactive material through Indiana. Works with DARPA, CWMD, and other federal agencies • Joined the National REP Committee as Region V representative in December 2021 |
| Education | |
| 08/2023 | Certificate, Executive Leadership - Naval Postgraduate School |
| 06/2022 | Certificate, Early REP Education - Naval Postgraduate School |
| 05/2021 | Master of Public Health - Indiana University |
| 05/2019 | B.A. Health Communications; Study Abroad - Vietnam - University of Cincinnati |

| Adam Bowers – Radiation Support Specialist | |
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| Work Experience | |
| 09/2024 - Present | <p>Radiation Support Specialist – Indiana Department of Homeland Security</p> <ul style="list-style-type: none"> • Serves as Equipment Manager for Radiation Programs • Writes Highway Route Controlled Quantity (HRCQ) radioactive transportation permits • Maintains and updates Radioactive Material (RAM) facility registrations • Supports Radiological Emergency Preparedness Program (REPP) as needed • Assists in Orphan Source investigations • Provides logistical and operational support for classroom and field radiation training • Assists in Preventative Radiological/Nuclear Detection operations |
| 09/2023 – 08/2024 | <p>Seasonal Natural Resources Technician - State of Indiana – Adjutant General’s Office, Military Dept. of Indiana</p> <ul style="list-style-type: none"> • Certified by Indiana Department of Corrections as an Offender Crew Supervisor • Certified by National Wildfire Coordinating Group as a Wildland Firefighter Type 2 • Licensed by the Office of Indiana State Chemist as a Registered Technician for pesticides • Responsible for selecting, certifying, and maintaining Offender Work Crews on projects • Conducted safety and equipment checks for large and small-scale operations • Conducted land reclamation operations with regards to state and federal regulations • Catalogued and maintained inventory lists and maintenance schedules • Aided Biology, Forestry, and Compliance teams as needed |
| 07/2022 – 06/2023 | <p>Pathways Student/ Chief of Staff Intern - Richard L. Roudebush VA Medical Center</p> <ul style="list-style-type: none"> • Analyzed productivity metrics for physician team in Pyramid Analytics and created reports on key performance indicators for Chief of Staff to reduce the time between intake appointments and first follow-up from 45+ days to <30 days • Created a Hospitalist Salary Survey presentation that looked to adjust staff Hospitalist salaries to current market rates. This was presented by my immediate supervisor to the Medical Center Director, resulting in one of my three scales presented being selected |

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| | <ul style="list-style-type: none"> • Collected signatures from entire Mental Health physician team for Performance Pay documents and then prepared and submitted to Chief of Staff for approval • Created a database in Excel tracking 100+ workspaces across the entire Mental Health service line to bring staff back into the office • Cross-trained as a Resident Timekeeper and Personal Identity Verification Sponsor |
| Education | |
| 05/2023 | B.S. Health Services Management – Indiana University-Purdue University Indianapolis |