



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
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KING OF PRUSSIA, PA 19406-2713

April 12, 2017

Jack Priest, Director  
Radiation Control Program  
Massachusetts Department of  
Public Health  
Schrafft Center, Suite 1M2A  
529 Main Street  
Charlestown, MA 02129

Dear Mr. Priest:

A periodic meeting with you and your staff was held on March 8, 2017. The purpose of this meeting was to review and discuss the status of the Massachusetts Agreement State Program. The U.S. Nuclear Regulatory Commission (NRC) was represented by James Trapp and me.

I have completed and enclosed a general meeting summary, including any specific actions resulting from the discussions. If you feel that our conclusions do not accurately summarize the meeting discussion, or have any additional remarks about the meeting in general, please contact me at (610) 337-5371 or via e-mail at [Donna.Janda@nrc.gov](mailto:Donna.Janda@nrc.gov) to discuss your concerns.

Sincerely,

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Donna M. Janda  
Regional State Agreements Officer  
Division of Nuclear Materials Safety

Enclosure:  
Periodic Meeting Summary for Massachusetts

AGREEMENT STATE PERIODIC MEETING SUMMARY FOR  
MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH  
RADIATION CONTROL PROGRAM

DATE OF MEETING: March 8, 2017

<b>U.S. Nuclear Regulatory Commission (NRC) Attendees</b>	<b>Massachusetts Department of Public Health Attendees</b>
James Trapp, Director, Division of Nuclear Materials Safety, Region I	Jack Priest, Director, Radiation Control Program
Donna Janda, State Agreements Officer, Region I	Joshua Daehler, Materials Supervisor, Radiation Control Program

**DISCUSSION:**

During the 2014 Integrated Materials Performance Evaluation Program (IMPEP) review of the Massachusetts Agreement State Program (Program) conducted on July 28 - August 1, 2014, the review team found the Commonwealth's performance satisfactory for four indicators and satisfactory, but needs improvement, for three performance indicators: Technical Quality of Inspections, Technical Quality of Licensing Actions, and Technical Quality of Incident and Allegation Activities. The review team did not make any new recommendations regarding program performance. The review team made one recommendation to strengthen the Commonwealth's incident response program.

On October 24, 2014, the Management Review Board (MRB) found the Program adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. The MRB directed NRC staff to initiate a period of Monitoring and requested that calls between the Massachusetts DPH staff and the NRC staff be conducted on a quarterly basis. In addition, the MRB directed that a periodic meeting be held approximately one year after the date of the IMPEP review. That meeting was held on July 30, 2015. At the Special MRB held to discuss the 2015 Periodic Meeting, the MRB noted the Program's significant progress in addressing the issues identified during the 2014 IMPEP review. The MRB directed that an additional periodic meeting be held tentatively in January 2017. This report is a summary of the second periodic meeting.

**TOPICS COVERED DURING THE MEETING INCLUDED:**

**Feedback on the NRC's Program**

The Program noted that there is good communication and support from NRC. The Program also appreciates the training courses and opportunities provided by NRC. The Program expressed its appreciation for the support and guidance provided by the NMSS Agreement State Training and Travel Coordinator.

The Program noted that NRC's implementation of the project involving non-military radium sites in Agreement States might have been more effective if the Agreement States had been more involved in the development of an action plan on how to address the sites consistently across all jurisdictions (NRC and Agreement States).

## Organization

The Program has not been reorganized since the 2014 IMPEP review. The Massachusetts Agreement State Program is administered by the Radiation Control Program, which is part of the Bureau of Environmental Health within the Department of Public Health. The Program is managed by the Program Director and the Radioactive Materials Unit Supervisor. The Program also has one licensing supervisor and one inspection supervisor. The Program Director noted that senior management is very supportive of the Program and addresses hiring/funding issues promptly.

## Program Budget/Funding

The program is fully fee funded. The fees are placed into a retained revenue fund which is dedicated for Program use. The most recent fee increase was in 2004 and at the time of this meeting, the Program did not anticipate any fee increases under the new Administration. The Program is working on a five-year financial plan which will include a review of the fee schedule and the retained revenue account to determine if changes need to be made. The Program has not had any budget cuts since the 2014 IMPEP review.

## Technical Staffing and Training (2014 IMPEP: Satisfactory)

At the time of the periodic meeting, the Program devoted seven full-time technical staff, including the licensing and inspection supervisors, and one full-time Unit Supervisor, to the radioactive materials program. Four technical staff members have been hired since the 2014 IMPEP review. Two of these staff members are now fully qualified and two are currently undergoing qualification training. One additional technical staff member will be starting with the Program shortly. Three additional technical staff from other units within the Radiation Control Program devote a total of 1.1 full-time equivalents to the radioactive materials program. Once the new hire is on board, the Program will have a total of 10.1 FTE dedicated to the radioactive materials program. There are currently no vacancies in the program.

## Status of Materials Inspection Program (2014 IMPEP: Satisfactory)

The Program reported it has conducted 94 Priority 1, 2, and 3 inspections, since the 2014 IMPEP review. None of these inspections were completed overdue. No inspections are currently overdue. The Program has completed 34 initial inspections since the 2014 IMPEP review, none of which were completed overdue. No initial inspections are currently overdue. The Program has a "stretch" goal of not exceeding an inspection due date by more than 10 percent for routine inspections. Meeting this goal will ensure that no inspections are completed when overdue by more than 25 percent, which is the IMPEP metric for timely inspections.

The Program conducted 4 reciprocity inspections out of 14 candidate licensees in calendar year 2014, 5 reciprocity inspections out of 13 candidate licensees in calendar year 2015, and 7 reciprocity inspections out of 13 candidate licensees in calendar year 2016.

### Technical Quality of Inspections (2014 IMPEP: Satisfactory, but Needs Improvement)

The Program Director reported that all qualified inspectors are involved with mentoring less experienced staff. The Unit Supervisor holds staff meetings with the inspection staff approximately every two months to discuss inspection findings and inspection-related issues. The Director meets with supervisory staff bi-weekly.

Based on issues identified during the 2014 IMPEP inspection accompaniments, the Program Director and Unit Supervisor temporarily increased the number of supervisory accompaniments on materials inspections. Between September 2014 and June 2015, Program managers performed 13 accompaniments of 7 inspectors. The managers debrief the inspectors at the conclusion of the inspection and provide feedback on any focus areas which need improvement.

The Program's goal is to perform a minimum of one supervisory accompaniment per inspector each calendar year. In calendar year 2015, supervisory accompaniments were performed once for each inspector. In calendar year 2016, supervisory accompaniments were performed twice for two inspectors and once for each of the other inspectors.

The Program uses inspection procedures that are consistent with the inspection guidance outlined in Inspection Manual Chapter (IMC) 2800. The inspection supervisor reviews and signs off on inspection reports to ensure that required information is documented in the report. Inspection findings are routinely sent to licensees within 30 days of completing an inspection.

### Technical Quality of Licensing Actions (2014 IMPEP: Satisfactory, but Needs Improvement)

At the time of the periodic meeting, the Program reported having 430 specific licensees. The Program reported a backlog of approximately 25 licensing renewal actions, a few of which are greater than one year. The Program is in the process of extending licenses from the current term of 5 years to a new term of 10 years. The renewal backlog is expected to decrease significantly as the license term is extended. The licensing supervisor reviews each renewal application for prioritization purposes and to ensure potential health and safety issues are addressed in a timely manner. The Program prioritizes licensing actions by giving precedence to new licenses and amendments before addressing renewal actions. The Program Director signs all licensing actions. The Program is fully aware of other recent Agreement State issues related to the review and issuance of licenses. Effective actions have been implemented to address potential similar issues.

During the July 2015 Periodic Meeting, the Program Director noted that the issues that were identified for this indicator during the 2014 IMPEP review have been addressed. The specific areas that needed to be addressed included: maximum possession limits on licenses, use of license conditions for certain devices, review of enforcement and inspection history during renewals, use of superceded licensing guidance, and use of a non-NRC approved legally binding requirement.

### Technical Quality of Incidents and Allegation Activities (2014 IMPEP: Satisfactory, but Needs Improvement)

One recommendation was made in this indicator during the 2014 IMPEP review:

**Recommendation:** The review team recommends that the Commonwealth strengthen its incident response program and take measures to ensure that the Program's evaluation of events is thorough, complete, properly documented to facilitate future follow-up, and undergoes appropriate management review prior to closeout.

**Status:** The Program uses a wipe board to track incidents from initial notification through completion. This provides an easily accessible method to determine the status of each event. Major events have a specific procedure that is used to ensure follow up actions are appropriate for the type and scope of each event. All events are reviewed at biweekly meetings and an incident/event evaluation report for each event is completed by the inspectors and reviewed by the Unit Supervisor and Program Director.

At the time of this meeting, the Program had reported 27 events to NRC since the 2014 IMPEP review. As noted above, all events are assigned to an inspector and tracked through completion. The inspectors work with the inspection supervisor and Unit Supervisor to ensure appropriate follow up actions are implemented which are commensurate with the health and safety and/or security significance of the event.

The Program uses procedures equivalent to the NRC's allegation procedures for processing allegations. The Program received and responded to 10 allegations since the last IMPEP review, including 2 allegations that were transferred by NRC. The Program has developed and implemented a procedure to address issues involving sales of radioactive materials on eBay.

#### Compatibility Requirements (2014 IMPEP: Satisfactory)

At the time of this meeting, the Program had no legislative changes that affected the Program. Since the 2014 IMPEP review, the Program has submitted three proposed regulation amendments, eight final regulation amendments, and three revised final regulation amendments to NRC for review. The proposed regulations are currently being reviewed by legal counsel. The next steps to final adoption include submission to the Commonwealth's Public Health Council (PHC) to approve for public comment. Once comments are addressed, the revised regulations are again submitted to the PHC for promulgation. After PHC approval, the final regulations are submitted to the Secretary of the Commonwealth, who establishes an effective date for the regulations.

#### Sealed Source and Device (SS&D) Evaluation Program (2014 IMPEP: Satisfactory)

The Program currently has five qualified SS&D reviewers. The Program uses IMC 1248 to qualify new SS&D reviewers. The Program has 11 active manufacturers/distributors in the Commonwealth with a total of 54 active SS&D registrations and 3 pending new registrations.

#### Current State Initiatives

- The Program developed a procedure for initial site visits and action levels to address non-military radium sites and has developed a survey checklist to ensure consistent and effective surveys are conducted. The Program has been performing site visits as time and resources allow.

- The Program has implemented peer-review criteria to maintain sustained employee performance.
- All inspectors use laptops in the field. The Program is interested in using web-based licensing.

#### Emerging Technologies

- The Program has purchased updated instrumentation including electronic dosimeters and radiation detection equipment.
- The Program noted that more limited scope medical licensees are requesting authorization for 35.1000 material. The Program issued an Information Notice (IN) on Emerging Technologies (35.1000 type uses) to their licensees in 2016.
- The Program issued one exemption from financial assurance/decommissioning funding plan to a licensee for use of a Ge/Ga generator.

#### Large, Complicated or Unusual Authorizations

- A decommissioning/decontamination company is interested in setting up a brokerage facility to bring radioactive material/waste to the facility to consolidate and ship for disposal.
- A large medical center was issued a separate license for use of a new teletherapy unit which is a whole body irradiator (used in bone marrow transplant therapy).

#### State's Mechanisms to Evaluate Performance

- The Program holds biweekly supervisors' meetings to discuss topics such as Program statistics, events, backlogs, and staffing and training.
- The Unit supervisor meets with the technical staff every two months to share knowledge and conduct training.
- Weekly reports are generated for inspection and licensing activities.
- Senior staff are very involved in training and mentoring less experienced staff.
- The Program Director reviews and signs all inspection reports and licensing actions.
- The Unit Supervisor conducts supervisory inspection accompaniments for all inspection staff and provides prompt feedback to the inspectors after the accompaniments.

### NRC Current Initiatives

Current NRC initiatives discussed included:

- Policy Statement on Adequacy and Compatibility
- U.S. Government Accountability Office (GAO) Materials Licensing Audit and Investigation
- Category 3 Source Security and Accountability Working Group Activities

### CONCLUSIONS:

The Massachusetts Agreement State Program continues to be an effective, well maintained program. There were no vacancies at the time of the periodic meeting. The Program continues to address the one recommendation made during the 2014 IMPEP review. The Program is effectively managing its licensing and inspection activities and responds to incidents and allegations as appropriate.

NRC staff recommends that the next IMPEP review be conducted as scheduled in July 2018.