



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PA 19406-2713

February 11, 2016

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 July 30, 2015. 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 Daniel Collins, Lisa Dimmick, and me. In addition an inspection accompaniment with one of your inspectors was conducted on July 29, 2015.

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,

*/RA/*

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

Enclosure:  
Periodic Meeting Summary for Massachusetts

February 11, 2016

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Radiation Control Program  
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Enclosure:  
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Distribution:

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**SUNSI Review Complete: DMJ (Reviewer's Initials)**

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DATE	02/11/16								

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

DATE OF MEETING: July 30, 2015

<b>U.S. Nuclear Regulatory Commission (NRC) Attendees</b>	<b>Massachusetts Department of Public Health (Department) Attendees</b>
Donna Janda, State Agreements Officer, Region I	Jack Priest, Director, Radiation Control Program
Daniel Collins, Director, Division of Nuclear Materials Safety, Region I	Joshua Daehler, Materials Supervisor, Radiation Control Program
Lisa Dimmick, Senior Health Physicist, Agreement State Programs Branch, Office of Nuclear Material Safety and Safeguards	

**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 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. The MRB also directed that a Periodic Meeting be conducted in approximately July 2015. This report is a summary of the periodic meeting.

**TOPICS COVERED DURING THE MEETING INCLUDED:**

**Program Strengths**

- Experienced and well-trained staff who work well together
- Good interactions between technical staff and Program managers
- Materials supervisor conducts inspection accompaniments and provides feedback to inspectors
- Program has two new technical staff with chemical engineering degrees
- Program uses experienced inspectors as mentors to new technical staff

### Program Challenges

- Retirements and staff turnover continue to impact the Program (early retirement incentive program resulted in loss of two experienced technical staff members)
- A hiring freeze is currently in effect for all agencies so the two vacant technical positions cannot be filled until the freeze is lifted
- The Program has lost one qualified SS&D reviewer and is evaluating the option of returning the SS&D Program to NRC
- A freeze on out-of-state travel is also in effect; however, staff are allowed to attend NRC sponsored courses

### 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 Director noted that without NRC training courses it would be difficult to qualify technical staff in materials inspection and licensing activities.

### Organization

The Commonwealth has a new governor, new Commissioner and a new Acting Associate Commissioner. 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 Center for Environmental Health within the Department. 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.

### Program Budget/Funding

Program funds 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 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. Two of the technical staff positions in the Program are currently vacant. One technical staff position in the Non-Ionizing Radiation/Industrial Unit is also vacant. The individual in this position performed radioactive materials inspections prior to resigning from the position. Two technical staff members have been hired since the 2014 IMPEP review and are currently undergoing qualification training. In addition, one individual in the Non-Ionizing Radiation/Industrial Unit is undergoing qualification training and will be devoting 0.5 FTE to the materials program.

As mentioned previously in this report, at the time of the periodic meeting, the Commonwealth had a hiring freeze and was unable to fill the vacant positions. These positions have been designated as critical hires and, as such, will have priority to be filled when allowed. The Program Director noted that the current staff has been completing licensing and inspection

activities on a timely basis but the level of effort to maintain timeliness has increased. The Program is in the process of hiring a recently retired technical staff member to return to work on a 120-day contract to support Program activities.

The Unit Supervisor developed a staffing plan and determined that the Program would benefit from an additional two technical staff members. This staffing plan was still under consideration at the time of this periodic meeting. Program managers are reviewing options to increase efficiency. Considering the potential retirements and other possible future vacancies due to attrition, the Program is concerned about knowledge management and succession planning and is working on options to address potential staff vacancies.

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

The Program reported it has conducted 152 inspections, including 45 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 19 initial inspections since the 2014 IMPEP review, none of which were completed overdue. In addition, the Program has conducted 4 reciprocity inspections out of 14 candidate licensees in calendar year 2014 and 4 reciprocity inspections out of 9 candidate licensees in calendar year 2015.

#### 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. One experienced inspector provided training to other Program inspectors on conducting effective inspections. After completing the NRC nuclear medicine course, the two newest inspectors provided training on patient release criteria to other Program inspectors. The Unit Supervisor holds staff meetings with the inspection staff approximately every two months to discuss inspection findings and inspection-related issues.

The Program Director and Unit Supervisor have increased the number of supervisory accompaniments on materials inspections. Since September 2014, Program managers have 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 two supervisory accompaniments per inspector each calendar year.

The Program uses inspection procedures that are consistent with the inspection guidance outlined in 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.

During the week of May 12-16, 2014, as part of the 2014 IMPEP review, the review team accompanied four Program inspectors on four routine safety/security inspections. The review team found that three inspectors did not identify some items important to health and safety or security with respect to completeness and thoroughness of the inspection and technical quality. On July 29, 2015, the NRC Region I RSAO accompanied one Program inspector during a routine safety/security inspection. The inspector was well prepared for the inspection and conducted a thorough audit of the licensee's radiation safety program. The inspector conducted interviews with appropriate personnel, observed licensee operations, conducted confirmatory measurements and utilized good health physics practices. The RSAO determined that the

inspection was adequate to assess radiological health, safety and security at the licensed facility.

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

At the time of the periodic meeting, the Program reported having 433 specific licensees. The Program reported a backlog in licensing renewal actions, a few of which are greater than one year. The licensing supervisor reviews each renewal application for prioritization purposes. The Program prioritizes licensing actions by giving precedence to new licenses and amendments before addressing renewal actions. The Program is considering extending licenses from the current term of 5 years to a new term of 10 years. The Program Director signs all licensing actions.

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 has implemented the use of a challenge board for their evaluation of follow up actions on complex events. After implementation of use of the challenge board, the first few events were discussed during a team review with the Program Director as chair. Currently the inspector assigned to an event will work with the inspection supervisor and Unit supervisor to ensure follow up actions are complete, thorough, and properly documented. The Program Director reviews the event documentation to ensure completeness.

At the time of this meeting, the Program had reported 14 events to NRC since the 2014 IMPEP review. The Program has completed several actions related to event follow up activities. The Program provided refresher training on medical events during staff meetings. Program staff participated in the NRC medical webinar on identification of medical events during inspection. The Program has issued two information notices to medical licensees and registrants in the Commonwealth of Massachusetts, one on written reports of medical events and one on medical events to non-treatment site(s). In addition, the Program plans to utilize the expertise of technical staff in the Mammography/Healing Arts Unit when appropriate.

The Program uses procedures equivalent to the NRC's allegation procedures for processing allegations. The Program received and responded to four allegations since the last IMPEP review, including one allegation that was transferred by NRC.

Compatibility Requirements (2014 IMPEP: Satisfactory)

At the time of this meeting, the Program had no legislative changes that affected the Program and no regulation amendments that were overdue for adoption. The Program Director reported that currently the Commonwealth has placed a freeze on regulation changes. The Program is in the process of completing the proposed version of Massachusetts' equivalent regulation to 10 CFR Part 37 and other regulation changes. If the freeze is not lifted in sufficient time for Massachusetts to adopt their equivalent Part 37 regulations by March 19, 2016, then Massachusetts plans to use an approved license condition to meet the implementation date.

Sealed Source and Device Evaluation Program (2014 IMPEP: Satisfactory)

The Program currently has three qualified SS&D reviewers, one of whom is not actively involved in SS&D reviews. One other reviewer who recently retired will return to the Program for a limited time as a contractor to perform SS&D reviews and to train new reviewers. The Program is training the two newest materials inspectors, both engineers, to become qualified SS&D reviewers. The new employees have reviewed greater than 20 actions under the direct supervision of a qualified SS&D reviewer. The Program is using IMC 1248 to qualify the new SS&D reviewers.

The Program has 55 active SS&D registrations and 5 pending new registrations. Four of the pending registrations are from an out-of-state manufacturer/distributor which plans to move their licensed activities to Massachusetts in the near future. The Program anticipates receipt of 10 additional registrations from this manufacturer.

**CONCLUSIONS:**

The Massachusetts Agreement State Program continues to be an effective, well maintained program. There were three staff level 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 a periodic meeting be held in one year and that the next IMPEP review be conducted as scheduled in July 2018.