

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH (DPH)  
MONITORING QUARTERLY CONFERENCE CALL  
March 27, 2018

<b>NRC Participants</b>	<b>Massachusetts DPH Participants</b>
John Miller, RSAO, Region I	Jack Priest, Director, Radiation Control Program
Monica Ford, RSAO, Region I	Joshua Daehler, Materials Unit Supervisor, Radiation Control Program
Lance Rakovan, Senior Health Physicist, Agreement States Program Branch, NMSS	

## **SUMMARY**

During the 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 performance 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 28, 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 the NRC staff to initiate a period of Monitoring, and requested that the Massachusetts Department of Public Health (DPH) and the NRC staffs conduct quarterly conference calls. Additionally, the MRB directed that a periodic meeting be conducted in one year from the IMPEP review to assess the Commonwealth's progress and efforts taken to address the identified performance issues, and that the next IMPEP review take place in approximately four years.

A periodic meeting was held with the Commonwealth on July 30, 2015. A special MRB meeting was held on February 22, 2016, to discuss the outcomes of that periodic meeting. Based on discussions held, the MRB directed that the Commonwealth continue on monitoring and agreed with the NRC's staff recommendation to hold a second periodic meeting in 12 months, as well as to hold an IMPEP review as scheduled in June 2018.

The second periodic meeting was held on March 8, 2017. A special MRB meeting was held on July, 7, 2017, to discuss the outcome of that periodic meeting. The MRB directed that: the Commonwealth continue on Monitoring; quarterly calls continue between the DPH and the NRC staffs; and the next IMPEP review be conducted as scheduled in June 2018.

## **DISCUSSION OF PROGRAM STATUS**

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

There are currently no vacancies in the Program. The Program reported that 9.2 full-time equivalents (FTE) are dedicated to the program. Five technical staff members have been hired since the 2014 IMPEP review. One staff member was hired as recently as March 13, 2017.

Four of the new staff are fully qualified in both licensing and inspection and one is still going through the qualification process. All of the applicable technical staff have received at least 24 hours of continuing education in the last 24 months.

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

Since the 2014 IMEP review, the Program has conducted 147 Priority 1, 2, and 3 inspections. None of the inspections were performed overdue. The Program reported completing 46 initial inspections since the 2014 IMPEP and none were performed overdue. The Unit Supervisor reported that the Program currently has no overdue inspections. In calendar year 2015 and 2016, the Program completed greater than 20% of the candidate reciprocity inspections and in calendar year 2017 the Program had completed 6 of 16 candidate licensees in 2017.

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

The Program's goal is to perform a minimum of one supervisory accompaniment per inspector each calendar year. The Unit Supervisor conducts supervisory accompaniments and, at the time of the call, all inspection accompaniments had been completed for calendar year 2017. Supervisory accompaniments are performed to ensure high quality inspections which are focused on protecting public health, safety and security. Senior inspectors continue to mentor less experienced inspectors as part of the Program's goal of having a sustained learning environment for inspectors. In addition, the Program continues to use the performance monitoring program in which there are multi-level reviews of inspection documentation. Peer checks are performed on inspection documentation as well as reviews from the Unit Supervisor and the Director.

The Program uses inspection procedures that are consistent with the inspection guidance in the NRC's Inspection Manual Chapter 2800. A supervisor signs off on all inspection reports to ensure the required information is documented in the report. Inspection findings were sent to the licensees within 30 days of completing an inspection in approximately 90% of the cases. In the inspections that did not meet the 30 day documentation metric, the inspection documentation was issued within one to five days beyond the 30 day target.

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

Massachusetts maintains approximately 412 specific radioactive materials licenses. The Program currently has a backlog of approximately 10 licensing actions, all of which are renewals greater than one year. The Program performs pre-licensing site visits for all applicants whether or not the applicant is a known entity. Massachusetts follows the NRC checklist for establishing a basis-for-confidence before issuing a license.

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

The Program reported receiving 36 reportable and non-reportable events and 13 allegations since the 2014 IMPEP review. The Program has implemented and continues the use of a challenge board as part of the Program's evaluation of event follow up. Events are assigned to an inspector and tracked through completion. The Program reported that all events received were subsequently inspected. The Program uses procedures equivalent to the NRC's procedures for processing allegations. The following is a status of the Program's actions to address a recommendation made 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 implemented the use of a challenge board for their evaluation of event follow up actions. After implementation, 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. Challenge boards are used when appropriate. The Program Director continues to review the event documentation and event closeout quality checklist for each event to ensure completeness.

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

According to the State's Regulation Status Sheet, the Program has two regulation amendments overdue for adoption (2012-4 and 2013-2). The Program stated that the proposed regulations had been reviewed by legal counsel and that the next step is to meet with the DPH Commission on April 11, 2018 and then send them to the Commonwealth's Public Health Council (PHC). After PHC approval, the regulations are submitted to the Secretary of the Commonwealth, who establishes an effective date for the regulations. The Program is hopeful that the regulations will be adopted in final before the June 2018 IMPEP review.

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

The Program has a total of four qualified SS&D reviewers. This is one less reviewer than the Program had at the time of the previous periodic meeting. The Program does not plan to qualify any new SS&D reviewers at this time. The Program has 12 active vendors. There are two new registrations pending approval. The Program reported that it does not have a backlog in SS&D actions.

#### Conclusion

Massachusetts continues to make progress in addressing the recommendation on incident response and other items identified during the 2014 IMPEP review. The Program has no vacancies in the radioactive materials program. The Program has no overdue inspections and continues to address the backlog in licensing renewal actions.