



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
475 Allendale Rd., SUITE 102  
KING OF PRUSSIA, PA 19406-1415

December 6, 2022

Eva Nair, Program Manager  
Radiological Health Program  
Air & Radiation Management Administration  
Maryland Department of the Environment  
1800 Washington Boulevard, Suite 750  
Baltimore, Maryland 21230

Dear Ms. Becker:

A periodic meeting with you and your staff was held on August 24, 2022. The purpose of this meeting was to review and discuss the status of the Maryland Agreement State Program. The U.S. Nuclear Regulatory Commission (NRC) was represented by Tamara Bloomer, Deputy Director, Division of Radiological Safety and Security, U.S. NRC Region I and me.

I have completed and enclosed a general meeting summary. If you feel that summary and its conclusion do not accurately reflect the meeting discussion or have any additional remarks about the meeting in general, please contact me at (610) 337-5143 or via e-mail at [Farrah.Gaskins@nrc.gov](mailto:Farrah.Gaskins@nrc.gov) to discuss your concerns.

Sincerely,

Farrah C. Gaskins  
Regional State Agreements Officer  
Division of Radiological Safety and Security  
U.S. NRC Region I

Enclosure:  
Periodic Meeting Summary for Maryland

cc w/encl.: Atnatiwos Meshesha,  
Radioactive Materials Division, Program Manager III

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

PERIODIC MEETING WITH THE STATE OF MARYLAND

TYPE OF OVERSIGHT: NONE

August 24, 2022

**FINAL**

Enclosure

## PERIODIC MEETING PARTICIPANTS

### **NRC**

- Tamara Bloomer, Deputy Director, Division of Radiological Safety and Security, Region I
- Farrah Gaskins, Regional State Agreements Officer, DRSS, Region I

### **Maryland Department of the Environment**

- Eva Nair, Program Manager
- Atnatiwos Meshesha, Radioactive Materials Division, Program Manager III
- Cheryl Nitkowski, Health Physicist Supervisor, Licensing
- Shannon Page, Radiation Machines Division, Program Manager III
- David Fabricante, Health Physicist II, Inspection
- Joval Rama, Health Physicist I, Inspection
- Solan Yadata, Health Physicist I, Inspection

## 1.0 INTRODUCTION

This report presents the results of the periodic meeting held between the U.S. Nuclear Regulatory Commission (NRC) and the State of Maryland. The meeting was conducted in accordance with the Office of Nuclear Material Safety and Safeguards (NMSS) Procedure SA-116 "Periodic Meetings between IMPEP Reviews," dated June 3, 2009.

The Maryland Agreement State Program (the Program) is administered by the Radioactive Materials Division of the Radiological Health Program (RHP). The RHP is within the Air and Radiation Administration of the Maryland Department of the Environment (the Department). The Program is managed by the Program Manager, and the Radiation Program Division Chief. Since the July 2021 Integrated Materials Performance Evaluation Program (IMPEP), there have been no changes to the organization structure.

At the time of the periodic meeting, the Maryland Agreement State Program regulated approximately 503 specific licenses authorizing possession and use of radioactive materials. The meeting focused on the radioactive materials program as it is carried out under the Section 274b. (of the Atomic Energy Act of 1954, as amended) Agreement between the NRC and the State of Maryland.

The Maryland Agreement State Program underwent an IMPEP review in July 2021. A Management Review Board (MRB) meeting to discuss the outcome of the IMPEP review was held on October 21, 2021. The review team found the State's performance satisfactory for six indicators and satisfactory but needs improvement for one indicator. The review team made two recommendations regarding program performance within the indicator Technical Quality of Licensing Actions. Overall, the MRB found the Program adequate to protect public health and compatible with the NRC's program. The MRB directed that a periodic meeting be held in approximately 12 months concurrent with a follow-up IMPEP review specific to the Programs progress addressing the IMPEP recommendations for the Technical Quality of Licensing Actions performance indicator.

## 2.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review the NRC regional and Agreement State radioactive materials programs during an IMPEP review. These indicators are (1) Technical Staffing and Training, (2) Status of Materials Inspection Program, (3) Technical Quality of Inspections, (4) Technical Quality of Licensing Actions, and (5) Technical Quality of Incident and Allegation Activities. Each of these indicators was discussed during the August 24, 2022, periodic meeting.

### 2.1 Technical Staffing and Training (2021 IMPEP review: Satisfactory)

The Program is comprised of 10 full time equivalents (FTE) which includes 10 technical staff, when fully staffed. The Program has undergone several staffing changes since the 2021 IMPEP. The radioactive Materials Division Chief left the program due to retirement and the inspection supervisor was promoted to this position. As a result, the Inspection Supervisor position was left vacant and was vacant at the time of the periodic meeting. In addition, a license reviewer left the program, and that position was vacant at the time of the periodic meeting. Two new contractor positions in licensing were filled and one is

on track to become permanent. There was one new inspector position filled since the 2021 IMPEP.

The Program's qualification Journal is commensurate with NRC's Manual Chapter 1248. Maryland qualifies staff by categories. There are currently six technical staff members undergoing qualification training. The Program also tracks required annual refresher training for the staff.

## 2.2 Status of the Materials Inspection Program (2021 IMPEP review: Satisfactory)

Maryland reported it has conducted 71 inspections since the 2021 IMPEP review. No Priority 1, 2, 3 or initial inspections were completed overdue. No inspections are currently overdue. The Program is conducting in person inspections.

The Program has goal to perform 20% reciprocity inspections of candidate licensees. Since the 2021 IMPEP review, Maryland conducted 20% of reciprocity candidates in 2021 and is on track to meet the 20% goal in 2022. Updates to Manual Chapter 2800 were discussed specifically highlighting the changes in performing reciprocity inspections.

The Program's goal is to issue inspection findings within 30 days of the inspection exit. While there is a process in place to sign out inspection reports, Maryland stated that two reports have exceeded the 30-day goal. The reports were reviewed but not signed by the supervisor.

## 2.3 Technical Quality of Inspections (2021 IMPEP review: Satisfactory)

The 2021 IMPEP found that inspection results were well documented with respect to public health and safety and that there was sufficient detail documented in the reports. The team also found that cited violations were supported by State regulations and led to appropriate and prompt actions. All inspection reports are signed out by the Radioactive Materials division chief and reports that include a notice of violation are signed out by the program director.

The 2021 IMPEP noted that during the COVID-19 Public Health Emergency, there was a delay in supervisory reviews of inspection reports. The team also noted that not all inspector accompaniments were completed by the supervisor. At the time of the periodic meeting all inspector accompaniments were completed for 2021 and 2022 except for the radioactive materials division chief. The division chief was promoted into the position in 2022 and had not been accompanied although still performing inspections. The program manager planned to have the accompaniment completed by the end of the year.

The Program uses inspection procedures that are consistent with the inspection guidance outlined in Inspection Manual Chapter (IMC) 2800. Inspection reports are reviewed by the Inspection Supervisor and by the Radioactive materials Section Chief. Inspection findings are routinely sent to licensees within 30 days of completing an inspection.

2.4 Technical Quality of Licensing Actions  
(2021 IMPEP Review: Satisfactory, but needs improvement)

The Program reported having 503 specific licenses. During the 2021 IMPEP review, the team noted significant issues in this indicator.

**Recommendation:** Maryland will review the qualifications of all RSOs, AUs, and AMPs listed on their medical licenses to ensure that they meet the qualifications in accordance with Maryland's regulations for medical use of byproduct material.

**Status:** Maryland has 250 medical licensees. At the time of the periodic meeting, Maryland reviewed 160 of their medical licenses to ensure RSOs, AUs, and AMPs meet qualifications. Maryland has worked to verify qualifications for 150 RSOs, 120 AMPs, and 830 AUs. Of those reviewed, approximately five were removed from the license. In these instances, the documentation was missing, and additional information could not be obtained from the licensee. Maryland noted that public health and safety was not affected. Maryland has completed the review for more than half of their licenses and continues to work on the recommendation. During this meeting, the general implications of the errors and the impact on the National Materials Program (NMP) were discussed with Maryland.

**Recommendation:** Maryland will develop and implement a procedure to ensure protection of sensitive information as it applies to written correspondence with licensees.

**Status:** Maryland developed a procedure for handling sensitive and confidential documents. The procedure became effective on October 18, 2021, and Maryland has implemented the procedure on licensing and inspection documents that contain security related information.

Maryland follows uses the NUREG 1556 series as guidance when completing licensing actions. The licensing indicator and the two associated recommendations were reviewed during the 2022 Follow-up IMPEP review. Additional information about this indicator can be found in the follow-up IMPEP report.

2.5 Technical Quality of Incident and Allegation Activities  
(2021 IMPEP review: Satisfactory)

There were 20 incidents reported to Maryland since the 2021 IMPEP. Of the 20, six were reported to NMED and two were reportable to the NRC. These events were reported timely to the NRC.

Maryland reported that they respond to events as appropriate by the following day. No significant events had been reported that would have generic implications. Since the 2021 IMPEP, Maryland has received two allegations and no allegations were transferred to Maryland by the NRC. Maryland performs and documents investigations into allegations.

The Program uses procedures equivalent to the NRC's allegation procedures for processing allegations.

### 3.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State programs: (1) Legislation Regulation and Other Program Elements (LROPE), (2) Sealed Source and Device (SS&D) Evaluation Program, (3) Low-Level Radioactive Waste Disposal (LLRW) Program, and (4) Uranium Recovery (UR) Program. The NRC's Agreement with Maryland only include non-common performance indicators LROPE and SS&D.

#### 3.1 Legislation, Regulation, and Other Program Elements (2021 IMPEP review: Satisfactory)

Maryland became an Agreement State on July 1, 1971. The Maryland Agreement State Program's current effective statutory authority is contained in the Annotated Code of Maryland, Environmental Article, Title 8, "Radiation." The Department is designated as the State's radiation control agency. No legislation affecting the radiation control program was passed during the review period. Maryland's administrative rulemaking process takes approximately ten months from drafting to finalizing a rule. The public, NRC, other agencies, potentially impacted licensees, and registrants are offered and opportunity to comment during the process. Comments are considered and incorporated, as appropriate, before the regulations are finalized, and approved by the Secretary of the Environment. That Radiation Control Advisory Board also consults with and advises the Secretary of the Environment on matters related to radiation. The State's rules and regulations are not subject to sunset requirements.

Since the 2021 IMPEP, Maryland has submitted two final regulation amendments and two revised final amendments. None were overdue for adoption at the time of this meeting.

#### 3.2 Sealed Source and Device Evaluation (SS&D) (2021 IMPEP review: Satisfactory)

##### Technical Staffing and Training

Maryland has one fully qualified SS&D reviewer. There are two staff going through the qualification process. Maryland has a training and qualification manual for SS&D reviewers that is equivalent to the NRC's IMC 1248 Appendix D.

Maryland has experienced staff turnover in this area. Maryland discussed options for performing evaluations since there is only one qualified staff member. Maryland confirmed they will reach out to other states that have qualified SS&D reviewers when needed.

##### Technical Quality of Product Evaluation Program

Maryland has four SS&D registrants. There have been two amendments since the 2021 IMPEP review.



## Evaluation of Defects and Incidents Regarding SS&Ds

No incidents involving SS&D registered products occurred since the last IMPEP review.

### 4.0 SUMMARY

The Maryland Agreement State Program has worked to implement and complete corrective actions regarding one of the concerns identified in the 2021 IMPEP report and continues to work on the other. Maryland has experienced some staff turnover since the 2021 IMPEP and is effectively managing its licensing and inspection activities. The Program conducts inspections at the same frequency as IMC 2800. There were no inspections overdue at the time of the periodic meeting. The Program responds to incidents and allegations as appropriate.

This periodic meeting was conducted concurrently with a follow-up IMPEP that focused on the Technical Quality of Licensing indicator and associated recommendations. Maryland has made significant progress on the recommendation to review qualifications for all RSO's, AU's, and AMP's. Maryland continues to work on this recommendation.

Maryland has one person qualified to perform SS&D evaluations and two staff are being trained. Maryland utilizes the assistance from other agreement states for performing these reviews.

The next IMPEP review will be determined by the Management Review Board.