



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
1600 EAST LAMAR BOULEVARD  
ARLINGTON, TEXAS 76011-4511

April 27, 2021

David M. Howe, M.A., Program Director  
Radiation Protection Services  
Oregon Health Services  
800 NE Oregon Street, Suite 640  
Portland, OR 97232-2162

SUBJECT: PERIODIC MEETING SUMMARY FOR THE OREGON AGREEMENT STATE

Dear Mr. Howe:

This letter documents the results of a periodic meeting with you and your staff on August 29, 2019. The purpose of this meeting was to review and discuss the status of the Oregon Agreement State Program. The U.S. Nuclear Regulatory Commission (NRC) representatives included Linda Howell, Deputy Director, Division of Nuclear Materials Safety (DNMS), and Jacqueline D. Cook, State Agreements Officer, DNMS.

Enclosed is a general meeting summary, including actions resulting from the discussions.

If you believe that our conclusions do not accurately summarize the meeting discussion, or have any additional remarks about the meeting, please contact me at (817) 200-1132, or via e-mail at [Jackie.Cook@nrc.gov](mailto:Jackie.Cook@nrc.gov) to discuss your concerns.

Sincerely,

Jacqueline D. Cook  
Regional State Agreements Officer

Enclosure:  
2019 Periodic Meeting Summary  
for Oregon

SUBJECT: PERIODIC MEETING SUMMARY FOR THE OREGON AGREEMENT STATE  
DATED- APRIL 27, 2021

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By: JDC

Yes  No

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Sensitive

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OFFICE	RIV/DNMS	C/MIB	RIV/DNMS DD
NAME	JCook	LRoldan-Otero	LHowell
SIGNATURE	JDC1	LXR3	LLH
DATE	04/23/2021	04/26/2021	04/26/2021

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

PERIODIC MEETING WITH THE STATE OF OREGON

TYPE OF OVERSIGHT: NONE

August 29, 2019

## PERIODIC MEETING PARTICIPANTS

### **NRC**

- Linda Howell: Deputy Director, Division of Nuclear Materials Safety (DNMS), NRC Region IV
- Jacqueline D. Cook: State Agreements Officer, DNMS, NRC Region IV

### **State of Oregon Radiation Protection Services**

- David Howe: Program Director
- Todd Carpenter, Radiation Protection Services (RPS)
- Michelle Martin, RPS
- Joseph Enger, RPS
- Thomas Pfahler, RPS
- Rama Wusirka, RPS
- Hillary Haskins, RPS
- Thomas Mynes, RPS
- Erin DeSempole, RPS
- Sharon Ross, RPS
- Daryl Leon, RPS
- Brent Herring, RPS
- Richard Wendt, RPS
- Andre Ourso: Administrator, Center for Health Protection (“Exit” portion of the meeting)

## 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 Oregon. The meeting was held on August 29, 2019. The meeting was conducted in accordance with NMSS Procedure SA-116 "Periodic Meetings between IMPEP Reviews," dated June 3, 2009.

The Oregon Agreement State Program is administered by the Radiation Protection Services Section (the Section) which is located within the Center for Health Protection. The Center is part of the Oregon Public Health Division. At the time of the meeting, the Oregon Agreement State Program regulated approximately 350 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 Oregon.

The Section is funded through 95 percent user fee with no state funds. The remaining 5 percent is largely from a multi-year Mammography Quality Services Act contract to inspect facilities, plus two smaller contracts with the Oregon Department of Energy for Emergency Response (ER) training of first responder-receivers along low level waste transportation routes, and Radiation Protection Services (RPS) ER training of staff for potential radiation release events at Hanford/Columbia Generating Station and radiation transportation incidents. In addition, RPS has modest service contracts with METRO recycling transfer stations for disposal of radiation waste and with Oregon Department of Environmental Quality for disposal of school laboratory radiation sources. In the year 2021, the Section anticipates a legislative concept to increase fees once again.

The Section last underwent an Integrated Materials Performance Evaluation Program (IMPEP) review in August 2017 (ML17304A423). A Management Review Board (MRB) meeting to discuss the outcome of the IMPEP review was held on October 26, 2017.

The MRB found that Oregon's performance was satisfactory for all performance indicators reviewed. Accordingly, the MRB found that the Oregon Agreement State Program is adequate to protect public health and safety and compatible with the NRC's program.

## 2.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review the NRC Regional Office 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.

### 2.1 Technical Staffing and Training (2017 IMPEP: Satisfactory)

The Oregon Agreement State Program is comprised of 15 individuals who contribute to the radioactive materials program which is budgeted for approximately 6.75 full-time equivalents. The health physicists are responsible for all licensing and inspection activities within the Section. Since the 2017 IMPEP review, three inspectors have left the program and these vacancies were filled. The vacancies were open for 3, 5, and 9

months. The Section had no vacancies at the time of this meeting.

The Section wants to increase their revenue to have funding for existing staff. In addition, the Section wants to cross train staff (from materials licensing/inspection to x-ray registration/inspection) which will help with the need for more x-ray inspectors.

All materials inspection staff are currently fully trained or are in the process of being cross trained to perform specific inspection types.

The Section has a training and qualification journal that is compatible with NRC's Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Materials and Environmental Management Programs."

## 2.2 Status of the Materials Inspection Program (2017 IMPEP: Satisfactory)

The Oregon Agreement State Program's inspection frequencies are the same as the NRC's inspection frequencies that are listed in IMC 2800. Since the last review period, nine inspections were performed overdue, and none are currently overdue. The overdue inspections were the result of an error identified in Oregon's database. During this review period, the Section performed Quality Assurance (QA) reviews of the database and the Section confirmed that this situation has been corrected. The Section issued two new licenses during the review period and all initial inspections of these licenses will be performed within the 12-month requirement.

The Section reported that they have exceeded the 20 percent requirement for performing reciprocity inspections since the last review period.

Inspection reports are typically issued within 30 days of the inspection exit meeting with the licensee.

## 2.3 Technical Quality of Inspections (2017 IMPEP: Satisfactory)

The Section continues to perform annual supervisor accompaniments of each qualified inspector with none being missed since the last review period.

Since the last review period, on July 12, 2019, the Section issued a "Notice of Violation (NOV) and Proposed Imposition of Civil Penalty; Opportunity for a Hearing" for primary NOVs that were related to eight Abnormal Occurrences (AOs) that occurred between January 7, 2015, and February 12, 2015, versus secondary NOVs for failure to give 72-hour notice of entry into Oregon under reciprocity for providing services which occurred between April 16, 2013, and March 3, 2015, to a Georgia Agreement State licensee working under reciprocity in the State of Oregon. Oregon learned about the earlier secondary incidents as a result of the primary investigation.

The ensuing investigation was challenging for Oregon's small radioactive material licensing staff. Due to the licensee's complexity and scope, Oregon's Licensing Manager created an investigation team. The time for the Section to conduct a thorough investigation, with nominal staff, was balanced against meeting NRC IMPEP requirements.

The primary investigation focused on root cause analysis, involving both mechanical

failure and human error. There were many facets to the investigation, including multiple team interviews (i.e., a person of interest who was terminated; licensee personnel-Human Resources, field service engineers, Radiation Safety Officer, technical advisory group, and management; and the Oregon licensee radiation staff), coordination between RPS and the Georgia Radiation Control Program, numerous document requests, research and vetting of documents, and legal consults with Oregon Department of Justice. Significant time lapses occurred in order to accomplish these tasks, leading to a comprehensive, defensible, investigative report. Oregon believes their diligence resulted in the licensee not contesting any of the findings or financial sanctions.

#### 2.4 Technical Quality of Licensing Actions (2017 IMPEP: Satisfactory)

The Section has completed nine licensing actions since the last review period. One large, complicated authorization for a cyclotron which will be used for medical, research and distribution license applications was issued during the review period.

Recommendation 1:

The MRB recommends that Oregon complete its QA review of licenses to ensure their program code, description, and inspection frequency accurately reflect the authorizations of the license.

Status:

After the IMPEP review, the Section started the process of conducting QA reviews of its database to address the incorrect program codes that had been identified by the team and had resulted in overdue inspections. The Section was also in the process of removing old and outdated program codes to reduce potential sources of errors. As mentioned in Section 2.2 of this report, at the time of this meeting, the QA review of the database had been completed. In addition, as part of their normal duties, license reviewers and inspectors verify that the program, the description, and inspection frequency is accurately reflected in the authorizations of the license, prior to completing any licensing action or inspection, respectively.

#### 2.5 Technical Quality of Incident and Allegation Activities (2017 IMPEP: Satisfactory)

The Oregon Agreement State Program has an incident database in addition to procedures and processes in place to maintain effective responses to incidents and allegations.

Since the 2017 IMPEP review, seven allegations had been received, by the section. One of the allegations, initially considered a significant event was triggered by misinformation provided by the initial caller. During its investigation, the Section determined that this was a routine scrap metal event involving magnesium-thorium (Mag-Thor) from an old building site that was delivered to a scrap metal recycling center. Once the Section identified this as a non-event, they contacted the National Response Center and the NRC Headquarters Operations Office (HOO) to provide an update to de-escalate the event. They were told by both the National Response Center and the NRC HOO that their protocols did not allow for de-escalation of events. A final email correspondence from NRC with a Program Engineer from the building site's National Office informed

Oregon that the material in question (Mag-Thor) is exempt. Specifically, 10 CFR 40.13(c)(4), states in part, that any finished product or magnesium-thorium alloys containing less than 4 percent by weight of thorium is exempt from the regulations. If the piece contains less than 4 percent thorium the item can be disposed of without regards to its radioactive material content. In this instance, the Program Engineer stated that the product was between 1 – 2 percent thorium; therefore, exempt from the regulations and properly disposed.

### 3.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State programs: (1) Compatibility Requirements, (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 Oregon does not relinquish regulatory authority for either SS&D, LLRW, or an UR program; therefore, only the non-common performance indicator Compatibility Requirements applies.

#### 3.1 Compatibility Requirements (2017 IMPEP: Satisfactory)

During this review period, Oregon is current and has finalized the following Regulation Amendment Tracking System Identification (RATS ID):

- RATS ID 2015-1, *Domestic Licensing of Special Nuclear Material – Written Reports and Clarifying Amendments Part 70;*
- RATS ID 2015-2, *Safeguards Information – Modified Handling Categorization, Change for Materials Facilities Parts 30, 37, 73, and 150;*
- RATS ID 2015-3, *Revisions to Transportation Safety Requirements and Harmonization with International Atomic Energy Agency Transportation Requirements Part 71; and*
- RATS ID 2015-4, *Miscellaneous Corrections, Parts 37 and 40.*

In addition, during this review period, RATS ID 2015-5, *Miscellaneous Corrections, 10 CFR Parts 19, 20, 30, 32, 37, 40, 61, 70, 71, and 150*, has been finalized but it has not been published yet. Regulations applicable to the Oregon Agreement State Program are not subject to sunset requirements.

### 4.0 SUMMARY

Within the scope of the periodic meeting, no programmatic concerns were noted at this time. The Oregon Agreement State Program is an effective and vital part of the Radiation Protection Services Section. The Section continues to effectively manage its inspection and licensing activities in addition to responding to incidents and allegations, as appropriate.