



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

February 7, 2020

Susan Jenkins, Chief  
Bureau of Radiological Health  
Department of Health and  
Environmental Control  
2600 Bull Street  
Columbia, SC 29201

Dear Ms. Jenkins:

A periodic meeting with you and your staff was held on December 5, 2019. The purpose of this meeting was to review and discuss the status of the South Carolina Agreement State Program. The U.S. Nuclear Regulatory Commission (NRC) was represented by James Trapp, Director, Division of Nuclear Materials Safety, U.S. NRC Region I and me.

Enclosed is a corrected copy of the general meeting summary. This copy incorporates comments submitted by the Division of Waste Management that were accidentally excluded from the version issued on January 22, 2020 (ML20022A312).

If you feel that the 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) 337-5214 or via e-mail at [Monica.Ford@nrc.gov](mailto:Monica.Ford@nrc.gov) to discuss your concerns.

Sincerely,

*/RA/*

Monica Lynn Ford  
Regional State Agreements Officer  
Division of Nuclear Materials Safety  
U.S. NRC Region I

Enclosure:  
Periodic Meeting Summary for South Carolina

cc w/encl.: James Peterson, Director  
Division of Radioactive Material

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

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NAME	JTrapp/jmt		MFord/mlf		
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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

PERIODIC MEETING WITH THE STATE OF SOUTH CAROLINA

TYPE OF OVERSIGHT: NONE

December 5, 2019

**Final – (Corrected Copy)**

Enclosure

## PERIODIC MEETING PARTICIPANTS

### **NRC**

- James Trapp: Director, Division of Nuclear Materials Safety, U.S. Nuclear Regulatory Commission (NRC), Region I
- Monica Ford: State Agreements Officer, NRC, Region I

### **South Carolina Bureau of Radiological Health**

- Susan Jenkins: Bureau Chief, Bureau of Radiological Health
- James Peterson: Director, Division of Radioactive Materials
- Leland Cave: Manager, Division of Radioactive Materials
- Andrew Roxburgh: Manager, Division of Radioactive Materials

### **South Carolina Bureau of Land and Waste Management**

- Stacey French: Director, Division of Waste Management
- Lynne Garner: Manager, Radioactive and Infectious Waste Management Program
- Crispulo Isiminger: Environmental Health Manager, Radioactive and Infectious Waste Management Program

## South Carolina Periodic Meeting Summary

### 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 South Carolina. The meeting was held on December 5, 2019. 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 South Carolina Agreement State Program is administered by two deputy areas within the South Carolina Department of Health and Environmental Control. The radioactive materials program is administered by the Bureau of Radiological Health (BRH) and the low-level radioactive waste disposal program is administered by the Bureau of Land and Waste Management (BLWM). No changes to the organizational structure of the Agreement State Program have occurred since the 2017 IMPEP review.

At the time of the periodic meeting, the South Carolina Agreement State Program regulated approximately 340 specific licenses authorizing possession and use of radioactive materials. BRH maintains oversight for 330 specific licenses while BLWM maintains oversight for 10 specific licenses. 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 South Carolina.

The BRH portion of the Agreement State Program is supported by licensee fees as well as money received from state budget appropriations. The BLWM portion of the Agreement State Program is totally funded by licensee fees received.

The South Carolina Agreement State Program underwent an Integrated Materials Performance Evaluation Program (IMPEP) review in June 2017. A Management Review Board (MRB) meeting to discuss the outcome of the IMPEP review was held on September 14, 2017. Based on the findings presented, the MRB found South Carolina's performance satisfactory for all performance indicators reviewed. One recommendation was made under the indicator Technical Staffing and Training, to update BRH's training and qualification manual to incorporate the essential elements of the NRC's Inspection Manual Chapter (IMC) 1248. Overall, South Carolina was found adequate to protect public health and safety and compatible with the NRC's program. Since South Carolina had received all satisfactory findings for consecutive IMPEP reviews the MRB determined that the next IMPEP review should take place in approximately 5 years and a periodic meeting in approximately 2.5 years.

### 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 December 2019 periodic meeting.

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

The BRH is comprised of 7.5 full time equivalents (FTE) which includes a Bureau Chief, a Division Director, two Section Managers, and four technical staff. This is an increase of 1.2 FTE since the 2017 IMPEP review. At the time of the periodic meeting there were no vacancies. Since June 2017, the Bureau Chief and one technical staff retired from the program. The Bureau Chief position was filled before the previous Bureau Chief retired. This allowed for adequate time for a thorough turnover of program responsibilities. The technical staff position took approximately 16 months to fill. This position had to be posted several times before BRH received an application from a suitable candidate.

One recommendation was made during the 2017 IMPEP review with regard to this indicator. The recommendation and status are listed below.

**Recommendation:** The team recommends that BRH update its training and qualification manual to incorporate the essential elements of IMC 1248 and implement it for all staff to ensure continued effective and consistent training and development of its staff.

**Status:** BRH updated its training and qualification manual in June 2018. The changes made to the manual incorporate the essential elements of the NRC's IMC 1248. The revised training manual has been implemented for all staff. New staff are using the manual to become qualified license reviewers and inspectors, while qualified staff are using the manual to ensure they obtain 24 hours of refresher training every 24 months.

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

BRH has conducted 121 Priority 1, 2, and 3 inspections since the last IMPEP review. None of the inspections were completed overdue. Additionally, BRH conducted eight initial inspections since the last IMPEP review, of which none were conducted overdue. There were no Priority 1, 2, 3, or initial inspections overdue for inspection at the time of the periodic meeting. BRH is completing reciprocity requirements in accordance with the requirements stated in the NRC's inspection Manual Chapter 1220. Greater than 20 percent of candidate licensees for reciprocity have been inspected in each of the calendar years since the last IMPEP review.

BRH's goal is to issue inspection findings within 30 days of the inspection exit. BRH stated that it is meeting this goal which is the same as the NRC's criteria of issuing inspection findings within 30 days of the inspection exit.

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

BRH has a policy to accompany all staff performing radioactive materials inspections on an annual basis. All inspector accompaniments were performed in calendar years 2017, 2018, and 2019.

BRH uses inspection procedures that are consistent with the inspection guidance outlined in the NRC's Inspection Manual Chapter 2800. Final inspection findings can be issued in

## South Carolina Periodic Meeting Summary

the field using BRH's form 591. If an inspection results in violations that require a licensee to respond, BRH will issue a form 592 from the office and will not issue a report in the field.

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

BRH has approximately 330 specific licenses. All licensing actions are completed in a timely manner. BRH has completed 519 licensing actions since the last IMPEP review. Currently, 19 actions are in house for processing. The longest of which is a renewal that has been in process for five months. BRH's licenses are on a ten-year renewal term.

When BRH receives a licensing action it is routed through the Division Director to the appropriate Section Manager who assigns the action to qualified staff. Once the action is complete it is sent back to the Division Director for an administrative review. Once the administrative review is complete the Division Director signs the license and it is issued. BRH staff use the NRC's NUREG 1556 Series guidance, Pre-licensing Guidance, and Risk Significant Radioactive Materials Checklist when performing licensing actions.

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

BRH is aware of the need to maintain an effective response to incidents and allegations. BRH has reported sixteen events to the NRC since the last IMPEP review. All reportable events were conveyed to the NRC in the correct manner as stated in State Agreements Procedure (SA) 300, "Reporting Material Events." BRH evaluates each incident it receives and determines the level of response needed based on the health and safety significance of the event.

BRH received and responded to two allegations since the last IMPEP review. One of these allegations was transferred by the NRC. BRH processed and closed all allegations in a timely manner.

Since the last IMPEP review BRH reviewed and revised its Incident and Allegation Procedures. The revised procedures embody the essential objectives of the NRC's SA-300, SA-400, and Management Directive 8.8 and were issued in April 2019.

## 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 South Carolina does not relinquish regulatory authority for UR; therefore, only the non-common performance indicators Compatibility Requirements, SS&D, and LLRW apply.

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

South Carolina became an Agreement State on September 15, 1969. The South Carolina Agreement State Program's current effective statutory authority is contained in

## South Carolina Periodic Meeting Summary

the Code of Laws of South Carolina, the Atomic Energy and Radiation Control Act, the Radioactive Waste and Transportation Act, and Environmental Protection Fees. The Department of Health and Environmental Control is designated in Section 13-7-40 of South Carolina's Atomic Energy and Radiation Control Act, as the State's radiation control agency. Section 13-7-40 also allows for a Technical Advisory Radiation Control Council (TARCC). No legislation affecting the radiation control program was passed during the review period.

The administrative rulemaking process takes approximately nine months from drafting to finalizing a rule. The public, the NRC, other agencies, and potentially impacted licensees and registrants are offered an opportunity to comment during the process. Comments are considered and incorporated, as appropriate, before the regulations are finalized and approved. South Carolina's rules and regulations are not subject to "sunset" laws.

Since the 2017 IMPEP review, South Carolina has submitted five proposed regulation amendments and four final regulation amendments to the NRC for a compatibility review. None of the amendments were overdue for State adoption at the time of submission and at the time of the periodic meeting no amendments were overdue for adoption. There is one outstanding comment on a final rule for regulation amendment tracking sheet (RATS) ID 2012-1. South Carolina stated that it made changes to its regulations to address the outstanding comment and that the change became final in February 2018. This change has not yet been submitted to the NRC for compatibility review. South Carolina stated it will submit this change to the NRC for a compatibility review.

### 3.2 Sealed Source and Device Evaluation (SS&D) (2017 IMPEP review: Satisfactory)

- Technical Staffing and Training

BRH has two fully qualified SS&D reviewers. No vacancies existed at the time of the periodic meeting. An additional staff person is working on becoming a fully qualified SS&D reviewer. This individual needs to take the SS&D Training class to complete their qualification. The SS&D class is slated to be held in the third or fourth quarter of fiscal year 2020. BRH has a training and qualification manual for SS&D reviewers that is equivalent to the NRC's IMC 1248 Appendix D.

- Technical Quality of Product Evaluation Program

BRH has one SS&D licensee with three active registration certificates. BRH has not received any SS&D applications (new, amendment, or termination) since the last IMPEP review.

- Evaluation of Defects and Incidents Regarding SS&Ds

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



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### 3.3 Low-Level Radioactive Waste Disposal (LLRW) Program (2017 IMPEP review: Satisfactory)

- Technical Staffing and Training

BLWM has a Program Manager and four technical staff positions one of which is onsite as a resident inspector at the Barnwell LLRW facility, making up 4.75 FTE, to implement the LLRW Disposal Program. Since the last IMPEP review, the Program Manager and one technical staff member left the program. The Program Manager left in February 2018 when they received a promotion to become the Bureau Chief of the BRH and the technical staff person retired in June 2018. The Program Manager position was filled within one month of the vacancy when one of the remaining technical staff was promoted to fill the position. This created a second vacancy at the technical staff level. BLWM hired a new technical staff person in August 2019. At the time of the periodic meeting there was still one technical staff vacancy in the program. BLWM has no current plans to post this vacancy. However, if the workload would increase BLWM will consider filling it.

BLWM has a training and qualification manual equivalent to NRC training requirements in IMC 1248, Appendix E. Staff going through the qualification process are given a copy of the manual to ensure training and qualification is obtained as appropriate.

- Status of Low-level Radioactive Waste Disposal Inspection Program and Technical quality of inspections

BLWM performed five semi-annual inspections of the Barnwell license and 127 weekly inspections at the facility since the last IMPEP review. Additionally, BLWM performed 27 inspections on the other nine licensees that fall under BLWM. All inspections were performed timely. There were no overdue inspections at the time of the periodic meeting. BLWM performs supervisory accompaniments of all inspectors on an annual basis.

- Technical Quality of Low-level Radioactive Waste Licensing Actions

BLWM has 10 specific licensees. All licensing actions, as of the periodic meeting, have been completed in a timely manner. BLWM has completed 20 licensing actions since the last IMPEP review. Currently, one action is in house for processing. This is the renewal for the Barnwell license which was received in September 2019. The license is on a five-year renewal term.

- Technical Quality of Incident and Allegation Activities

BLWM received no incidents or allegations involving its licensees since the last IMPEP review.

### 4.0 SUMMARY

South Carolina continues to maintain a strong Agreement State Program. Staff turnover is addressed as it occurs and no inspections for either Bureau were performed overdue during the review period. Licensing actions are completed timely and regulations are

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adopted within three years of their effective date. No concerns or issues were noted during the periodic meeting. The the next IMPEP review is on track to be held in June 2022.