



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION IV  
1600 E. LAMAR BLVD.  
ARLINGTON, TX 76011-4511

December 19, 2016

Scott T. Anderson, Director  
Division of Waste Management and Radiation Control  
Department of Environmental Quality  
195 North 1950 West  
P.O. Box 144880  
Salt Lake City, UT 84114-4880

Dear Mr. Anderson:

A periodic meeting was held with you and your staff on November 3, 2016, at your offices in Salt Lake City. The purpose of this meeting was to review and discuss the status of the Utah Agreement State Program. The U.S. Nuclear Regulatory Commission (NRC) was represented by Scott Morris, Deputy Regional Administrator, NRC Region IV, and me.

I have completed and enclosed a general meeting summary, including any specific actions resulting from the discussions. A Management Review Board (MRB) meeting to discuss the outcome of the periodic meeting has been scheduled for January 12, 2017, at 1:00 p.m. (ET). Call-in information for the MRB will be provided in a separate transmission.

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 (817) 200-1116 or via e-mail at [Binesh.Tharakan@nrc.gov](mailto:Binesh.Tharakan@nrc.gov) to discuss your concerns.

Sincerely,

*/RA/*

Binesh K. Tharakan, CHP  
Regional State Agreements Officer  
Division of Nuclear Materials Safety

Enclosure:  
Periodic Meeting Summary

Scott T. Anderson, Director  
 Division of Waste Management and Radiation Control  
 Department of Environmental Quality  
 195 North 1950 West  
 P.O. Box 144880  
 Salt Lake City, UT 84114-4880

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Binesh K. Tharakan, CHP  
 Regional State Agreements Officer  
 Division of Nuclear Materials Safety

Enclosure:  
 Periodic Meeting Summary

**DISTRIBUTION:** SP08

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|-----------------------|-------------------|------------------|--------------------|
| M. Shaffer, DNMS      | L. Howell, DNMS   | D. Collins, NMSS | P. Henderson, NMSS |
| R. Erickson, RSAO     | B. Tharakan, RSAO | L. Dimmick, NMSS | P. Michalak, NMSS  |
| L. Roldan-Otero, NMSS | K. Meyer, NMSS    | D. White, NMSS   |                    |

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| By: <b>BKT</b>                                   |            | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Non-Publicly Available        | <input type="checkbox"/> Sensitive     | IMPEP    |
| OFFICE   | RIV:RSAO   |   |  |  |          |
| NAME   | BKTharakan |   |  |  |          |
| SIGNATURE  | <i>bkt</i> |   |  |  |          |
| DATE   | 12/19/16   |   |  |  |          |

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PERIODIC MEETING SUMMARY FOR THE UTAH AGREEMENT STATE PROGRAM  
DATE OF MEETING: NOVEMBER 3, 2016

| <b>U.S. Nuclear Regulatory Commission (NRC) Attendees</b>   | <b>Utah Department of Environmental Quality Attendees</b>                           |
|---|---|
| Binesh Tharakan, State Agreements Officer, Region IV  | Scott Anderson, Director, Division of Waste Management and Radiation Control        |
| Scott Morris, Deputy Regional Administrator, Region IV  | Rusty Lundberg, Deputy Director, Division of Waste Management and Radiation Control |
| <b>The following NRC staff participated by telephone during discussions about the Uranium Recovery and Low-Level Radioactive Waste programs</b> | Phil Goble, Manager, Uranium Mills and Radioactive Materials Section                |
| Paul Michalak, Chief, Agreement State Program Branch  | Don Verbica, Manager, Low-Level Radioactive Waste Section                           |
| Duncan White, Senior Health Physicist, Agreement State Program Branch   | Laura Lockhart, Assistant Attorney General, Utah Attorney General's Office          |
| Stephen Poy, Health Physicist, Agreement State Program Branch   |   |
| Lisa Dimmick, Senior Health Physicist, Agreement State Program Branch   |   |

DISCUSSION:

The Utah Agreement State Program (the Program) is administered by the Uranium Mills and Radioactive Materials Section (UMills/RAM Section) and the Low-Level Radioactive Waste Section (LLRW Section) within the Division of Waste Management and Radiation Control (the Division). The Division is part of the Utah Department of Environmental Quality.

The most recent Integrated Materials Performance Evaluation Program (IMPEP) review was conducted the week of July 27-31, 2015. The Management Review Board (MRB) met on October 29, 2015, to discuss the results of this IMPEP review. Utah's performance was found satisfactory for six of the eight performance indicators reviewed. The Technical Quality of Incident and Allegation Activities performance indicator was found to be satisfactory, but needs improvement. The Compatibility Requirements performance indicator was found to be unsatisfactory. The cause of the unsatisfactory finding was due to recent revisions to Utah statutes addressing financial surety that were not compatible with NRC requirements. The revisions were made by the Utah State Legislature during the 2015 General Session and became effective on May 12, 2015. The review team made one new recommendation and determined that the three recommendations from the previous 2011 IMPEP review should be closed. The review team recommended that the State modify financial surety statutes for the LLRW disposal site, such that the statutes ensure adequate financial surety and do not conflict with federal requirements.

Accordingly, the review team recommended to the MRB that the Utah Agreement State Program be found adequate to protect public health and safety, but needs improvement, and not compatible with the NRC's program. The review team also recommended that the NRC initiate a period of heightened oversight for Utah. However, the MRB determined that the Utah Agreement State Program be found adequate to protect public health and safety, and not

compatible with the NRC's program. Further, the MRB determined not to implement a period of heightened oversight. The review team recommended, and the MRB agreed, that a periodic meeting be held within one year and that a follow-up IMPEP review take place approximately one year following the periodic meeting.

### Program Challenges

The Division of Solid and Hazardous Waste and the Division of Radiation Control merged on July 1, 2015. The Division of Waste Management and Radiation Control has had some merger-related challenges including adjusting to the new management reporting structure and process. The reorganization also placed personnel into the low-level radioactive waste, uranium recovery, and radioactive materials programs who are new to those areas or who may not have had significant experience with radiation or radioactive materials. Prior to the merger, there was a licensing section and a compliance section. The positions were license reviewers and inspectors, respectively. After the merger, staff members were moved into the UMills/RAM Section or the LLRW Section. In an effort to gain some depth of knowledge and experience in the various program areas, the Division began cross-training inspectors and license reviewers.

Another challenge is that the Division is involved in a significant amount of stakeholder interaction in the uranium recovery and low-level radioactive waste program areas. The additional work required to respond to stakeholders reduces staff resources available to complete routine inspection and licensing work in these areas.

Additionally, the Division has some staff who are near the end of their careers (i.e., an aging workforce), therefore time off and retirements have also challenged the Division to keep up with its current workload. Although the Division is meeting this challenge, the loss of experienced and qualified staff to retirement in the near future will likely have a significant impact on the Program's ability to maintain the current licensing and inspection workload. The Division has the option to hire new staff and double encumber positions in anticipation of retirements; however, that option has not yet been used.

### Program Reorganizations

There have been no reorganizations since the 2015 IMPEP.

### Program Budget/Funding

No changes or issues with funding were reported by the Program. The funding for the Program remains steady and is adequate to implement the Program. The UMills and LLRW programs are funded by a monthly flat fee charged to the licensees in each program. The RAM program is funded by license fees charged to RAM licensees and Utah's general fund.

### Feedback on NRC's Program

The Division expressed gratitude for the cost-free training provided by the NRC. The cost-free training reduces the burden on the Program and helps their staff become qualified in a timely manner. The Division also expressed appreciation for the NRC's Regional State Agreements Officers and other NRC staff members for their outstanding communication, cooperation, and coordination on a variety of issues throughout the year. Especially noteworthy is the close coordination between the NRC and Utah for issues associated with training, travel, webinars/webcasts, and requests for information to and from the State.

The Division requested that the NRC provide advanced notification or stagger requests for comments that are solicited from the Agreement States. There are a significant number of working group documents, regulations, and information requests sent to the Agreement States for review and comments. Issuance of these requests should be evaluated to determine if better planning could help alleviate the receipt of multiple, simultaneous requests by the State. For example, since most working groups have specific schedules to adhere to and will know when documents will be out for comment, the Division requested that these schedules be made available to the Agreement States for planning purposes. That way the States could plan to allocate time for staff to review the documents.

#### Technical Staffing and Training (2015 IMPEP Satisfactory)

Technical staffing and training for the radioactive materials portion of the UMills/RAM Section is described below. The uranium recovery and low-level radioactive waste programs will be presented later.

At the time of the 2015 IMPEP, there were 4.5 Full-Time Equivalent (FTE) positions dedicated to the RAM program. There were no changes to staffing levels since the 2015 IMPEP review. The RAM program included four qualified technical staff, and the Section and Division managers. One staff member retired and a qualified inspector from another Agreement State was hired as a replacement.

At the time of the periodic meeting, there were no vacancies. The Program reported that the staffing level is adequate to implement the radioactive materials program; however, that could be challenged if personnel become absent for extended periods, retire, or leave the Division.

Utah's RAM training and qualification program is equivalent to NRC's Manual Chapter 1248 training requirements including the requirements for periodic refresher training.

#### Status of the Materials Inspection Program (2015 IMPEP Satisfactory) Technical Quality of Inspections (2015 IMPEP Satisfactory)

The Program conducted 116 inspections since the last IMPEP. One Priority 2 inspection was conducted overdue. At the time of the periodic meeting, five inspections were overdue. No initial inspections were overdue. The Program has also completed greater than 20 percent of reciprocity candidate inspections since the last IMPEP. The Program's management attributed the overdue inspections to the retirement of one qualified inspector and extended absences of other inspectors.

The Program reported that annual supervisory accompaniments of all inspectors are being completed as required, and inspection reports are being issued within 30 days of the end of the inspection. After an inspection, the inspector debriefs the inspection observations to management and staff; the Section Manager reviews the inspection report and it is signed out by the Division Director.

#### Technical Quality of Licensing Actions (2015 IMPEP Satisfactory)

At the time of the periodic meeting, the Utah RAM program regulated 190 specific licensees. This figure is seven less than the number of active licensees at the last IMPEP. Since the last IMPEP, the Program completed 102 licensing actions, seven of which were terminations, 12 were initial license applications, and the rest were license amendments. Six licenses are under

timely renewal. The Program issues new licenses for a five-year period and renews licenses for a ten-year period.

The Program performs onsite pre-licensing visits for all new license applicants that are unknown entities. Once the pre-licensing actions are completed, the Program mails the license to the new licensee.

#### Technical Quality of Incident and Allegation Activities (2015 IMPEP Satisfactory but Needs Improvement)

At the 2015 IMPEP review, the Program was found satisfactory but needs improvement because incident response and allegation procedures were not always followed. The lack of timely reporting of incidents to the NRC combined with insufficient receipt and closure documentation for allegations resulted in less than fully satisfactory performance for this indicator. The review team did not make a recommendation because adequate procedures were in place and management committed to improving adherence to the procedures.

At the time of the periodic meeting, the Program had completed retraining all staff about the requirements of the incident response and allegation procedures. Since the last IMPEP, six incidents were reported to the NRC. None of the incidents were reported late. All six incidents have been investigated, reviewed, and closed by the Program. Additionally, seven events from the previous IMPEP review period were also updated and closed since the 2015 IMPEP.

One allegation was referred to the Program by the NRC. The allegation was addressed and closed. There were no allegations received directly by the Program since the last IMPEP.

#### Compatibility Requirements (2015 IMPEP Unsatisfactory)

Utah Senate Bill 173 (SB 173) addressed the financial surety required for the LLRW disposal site. In a letter dated March 18, 2015, the NRC provided three comments on SB 173 to the Program. These comments identified that financial surety program elements contained in SB 173 could cause conflicts, duplications, or gaps in the orderly pattern of regulations on a nationwide basis. As part of the legislative process, the Division provided input to reconcile the NRC's concerns and address the financial surety conflicts; however, that input was not included in the final bill. The Utah legislature passed SB 173 and it became effective on May 12, 2015. The 2015 IMPEP review concluded on July 31, 2015. The review team found that the Program was in conflict with the federal regulations contained in 10 CFR 61.62 for financial surety of the LLRW disposal site. The review team recommended to the MRB that:

- The Compatibility Requirements performance indicator be found unsatisfactory; and
- The State modify financial surety statutes for the LLRW disposal site, such that the statutes ensure adequate financial surety and do not conflict with federal requirements.

On October 21, 2015, the Division provided a response to NRC's March 18, 2015, comment letter. In the response, the Division provided clarification on one of the comments for NRC to consider, and acknowledged the NRC's concerns and recommended changes for the other comments. The Division also committed to working with the NRC to resolve the comments appropriately. The MRB met on October 29, 2015, and agreed with the review team's recommendations.

In a letter dated February 25, 2016, the Division submitted draft waste management amendments to the NRC for review. On March 9, 2016, the NRC responded to Utah with comments on the draft amendments. Utah was not able to develop revised legislation in time for the 2016 legislative session, which ended on March 10, 2016. At the time of the periodic meeting, the Division planned to incorporate NRC comments and develop revised legislation for the 2017 legislative session. The recommendation is still open pending the outcome of the legislative changes.

The State's regulation development process usually takes three to four months, depending on the complexity of the regulations and level of stakeholder involvement. For regulations impacting UMills and the LLRW disposal site, there has been a significant level of stakeholder involvement in the regulation development process. In accordance with Utah law, the Waste Management and Radiation Control Board (the Board) is authorized to perform all administrative rulemaking functions for the radioactive materials program. The Division normally takes about a month to draft new rules for the Board's consideration and action. After receiving approval from the Board, the rules are published in the Utah Bulletin to initiate formal public notice of the rulemaking action and to allow for a public comment period. Final adoption of a rule that does not require any further amendments as a result of comments as well as setting an effective date must be completed no later than 120 days from the Utah Bulletin publication date. If it fails to meet the 120-day timeline, then the rulemaking process must be repeated and completed within a new 120-day time period. The public has an opportunity to comment on new or amended rules. A 30-day comment period begins when the new or amended rule is published in the Utah Bulletin.

At the time of the periodic meeting, Utah had one regulation amendment overdue for adoption. Regulation Amendment Tracking System Identification (RATS ID) number 2013-2, which makes changes to the distribution of source material to exempt persons and general licensees in 10 CFR Parts 30, 40, and 70, was still being developed by the Program. The Division's management attributed the overdue development of these regulations to higher priority work resulting from the reorganization.

Utah adopted equivalent 10 CFR Part 37 regulations in June 2015. Since then, the Program has observed that the medical license community has done better at adapting to the new requirements than has the radiography license community. However, no significant noncompliance with the new requirements have been identified by the Program. Utah held a workshop to explain the new requirements and discuss the differences between the increased controls orders and 10 CFR Part 37. They invited 21 licensees to attend, approximately 15 people attended the workshop. The Program indicated that, based on inspections thus far, licensees in Utah have appropriately implemented the new Utah's 10 CFR Part 37 equivalent regulations.

#### Low-Level Radioactive Waste Program (2015 IMPEP Satisfactory)

The LLRW Section is allocated 9 FTE to license and inspect the Energy Solutions Clive Facility located approximately 80 miles west of Salt Lake City. The LLRW Section is composed of 10 technical staff members and the Section Manager. Two staff members were fully qualified to license and inspect the Clive facility. Eight staff members were in various stages of completing the in-house qualification process and could license or inspect certain specific operations at the Clive Facility. There were no vacancies in the LLRW Section.

One inspector is permanently assigned to the Clive Facility. The inspector travels to the site on a daily basis to conduct RAM transportation inspections. Since the July 2015 IMPEP, the Program has completed 20 inspection modules. For comparison, during the previous 4 year IMPEP review period, the Program completed 183 inspection modules. The reduction in the number of inspection modules completed per year was attributed to training new inspection staff and the learning curve associated with inspecting the largest commercial LLRW disposal site in the United States. Additionally, some inspection modules were modified to reduce the frequency of the inspections and improve overall efficiency of the inspection program.

The LLRW Section is also responsible for licensing/permitting and inspecting the mixed waste management operations (wastes containing both RCRA hazardous waste and radioactive waste constituents) and the 11e.(2) byproduct material disposal operations at the Clive Facility.

Since the 2015 IMPEP:

- (1) The Division reported that supervisory accompaniments had been performed annually for all inspectors.
- (2) There was only one license amendment issued to the Clive Facility. The amendment addressed security and organizational changes.
- (3) There were no incidents or allegations reported to the Division associated with the Clive Facility.

#### Uranium Recovery Program (2015 IMPEP Satisfactory)

The uranium recovery program is administered by the UMills staff in the UMills/RAM Section. The RAM program was discussed above in detail. For the UMills part of the Section, there are 5.5 FTE allocated to implement the uranium recovery program. The UMills staff includes two groundwater hydrologists, one health physicist, and two professional engineers. One engineer retired since the last IMPEP. The associated vacancy has been filled by a new engineer who is in the training and qualification program. Utah has a training and qualification program equivalent to IMC 1248. At the time of the periodic meeting, there were no vacancies; however, the Division indicated that adding another health physicist to the staff would benefit the program.

The UMills Section performed 30 field inspections since the 2015 IMPEP. None of the inspections were conducted overdue, and there were no overdue inspections at the time of the periodic meeting.

The Program has three conventional uranium mill sites in various stages of operation. The Program is currently processing license renewals for all three - the decommissioning Rio Algom Lisbon Valley site, the idle Anfield Resources Shootaring Canyon site, and the active Energy Fuels White Mesa site. The license for the Shootaring Canyon site, which has been idle (standby status) since 1982, has been transferred from Uranium One to Anfield Resources.

There were two transportation incidents at the White Mesa facility that were investigated and closed by the Program. The Program also reported these incidents to the NRC. There was one allegation referred to Utah by the NRC since the last IMPEP. The Program reviewed and closed the allegation.

The Division has an ongoing dialogue with the environmental staff of the Ute Mountain Ute Tribe to address and discuss matters of concern and interest regarding the White Mesa Uranium Mill Facility located in San Juan County (southeastern Utah). Areas of interest include the tailings

disposal embankments, ground water monitoring, and ore and alternate feed management. This joint effort has been proven to be an important vehicle for addressing such key items.

### Information Exchange

### Current State Initiatives

- Web-Based Licensing (WBL) – After studying Colorado’s use of WBL further, Utah is considering using WBL in the future

### Current NRC Initiatives

- Project Aim
- NRC Re-baselining of activities
- Military and Non-military uses of radium
- Response to Government Accountability Office licensing audit
- Commission Staff Requirements Memorandum instructing staff to review the feasibility of tracking Category 3 sources

### CONCLUSIONS:

NRC staff recommends that a follow-up IMPEP review be conducted as scheduled in November 2017 to evaluate the two performance indicators that were less than fully satisfactory at the 2015 IMPEP review.