



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

October 30, 2015

Dr. Nathaniel Smith, MD, MPH, Director of Health
and State Public Health Officer
Arkansas Department of Health
4815 W. Markham Street
Little Rock, Arkansas 72205

Dear Dr. Smith:

A periodic meeting was held with management and staff of the Arkansas Radiation Control Program on October 15, 2015. The purpose of this meeting was to review and discuss the status of the Arkansas Agreement State Program. The U.S. Nuclear Regulatory Commission (NRC) was represented by Mark R. Shaffer and me. Following the Periodic Meeting an exit briefing to discuss the outcome of the meeting was held with you, Stephanie Williams, Deputy Director of Health, and other members of your staff.

I have completed and enclosed a general meeting summary, including any specific actions resulting from the discussions. A Management Review Board meeting to discuss the outcome of the periodic meeting will be scheduled and call in information 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) 200-1143 or via e-mail at Randy.Erickson@nrc.gov to discuss your concerns.

Sincerely,

/RA/

Randy Erickson
State Agreements Officer
Division of Nuclear Materials Safety

Enclosure:
Periodic Meeting Summary for Arkansas

Dr. Nathaniel Smith, MD, MPH, Director of Health
 and State Public Health Officer
 Arkansas Department of Health
 4815 W. Markham Street
 Little Rock, Arkansas 72205

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AGREEMENT STATE PERIODIC MEETING SUMMARY FOR THE
ARKANSAS DEPARTMENT OF HEALTH

DATE OF MEETING: OCTOBER 15, 2015

| U.S. Nuclear Regulatory Commission (NRC) Attendees | Arkansas Radiation Control Program Attendees |
|---|--|
| Randy Erickson, State Agreements Officer, Region IV | Renee Mallory, RN, Director Center for Health Protection |
| Mark Shaffer, Director, Division of Nuclear Materials Safety, Region IV | Connie Melton, Chief Health Systems Licensing and Regulation Branch |
| | Bernard Bevill, Chief Radiation Control Section |
| | Jared Thompson, Manager Radiation Control Program |
| | Steve Mack, Health Physicist |
| | Angela Minden, Health Physicist |
| | Angie Hall, Health Physicist |
| | David Stevens, Health Physicist |
| | Susan Elliott, Health Physicist |
| | Wendy Bennett, Budget Coordinator |

DISCUSSION:

During the 2013 Integrated Materials Performance Evaluation Program (IMPEP) review of the Arkansas Agreement State Program (Program), the review team found the State's performance satisfactory for the indicators Technical Staffing and Training, Status of Materials Inspection Program, Technical Quality of Inspections, Technical Quality of Incident and Allegation Activities and Compatibility Requirements; and satisfactory, but needs improvement, for the indicator Technical Quality of Licensing Actions. The review team made three recommendations for the Program and closed one recommendation from the 2011 IMPEP review.

The review team also recommended, and the Management Review Board (MRB) agreed, that the Arkansas Program was adequate to protect public health and safety and was compatible with the NRC's program. The MRB also agreed that the next IMPEP review take place in approximately four years.

TOPICS COVERED DURING THE MEETING INCLUDED:

Program Challenges

1. Remaining financially viable
 - Up to 2011 the Arkansas Program was funded primarily via a general revenue appropriation. Fees supporting the program were very low and had not been increased since 1995. In 2011 a bill (Act 596) was introduced into the Arkansas legislature requesting the fee approval process be moved from the Arkansas legislature to the Arkansas Board of Health (Board). That bill was successfully

Enclosure

passed on March 23, 2011, and it provided for a maximum fee cap of 25 percent of NRC's 2012 fees. Then in 2011 the Board approved the first fee increase in 16 years and set it at 15 percent of NRC's fees. When the increased fees became effective in 2012, the Program was much better positioned to support salaries and activities, but over time as the state budget became more restricted, expenditures that were still being covered by general revenue were eventually transferred to the fee fund. This change, in addition to a declining number of licensees, has caused the fee fund to deplete faster than originally projected. Because of this, the Program is planning to go to the Board in 2016 to request another fee increase, which if approved would become effective in 2017. At this point, the Program has no idea how the Board will respond to the request.

2. Filling vacant staff positions

- Historically the Arkansas Program has had issues with staff turnover, and at times turnover has been significant enough to cause the Program to fall behind on licensing and inspection activities. In 2007 this reached a point where the Program was placed on increased oversight. The Program made changes which helped stabilize staffing and in 2012, the Program was eventually removed from increased oversight. While at the present time the Program has continued to keep up with licensing and inspection activities they did lose additional staff between the 2013 IMPEP review through the 2015 Periodic Meeting. When they're fully staffed, the Program has six health physicists. At the time of the 2013 IMPEP review they were fully staffed, but in the following two years they lost three health physicists and hired two with the remaining position being left vacant for approximately one year. The Program is concerned that this position should be filled soon because they anticipate a surge in licensing renewals to begin within the next two years. Their concern is that the time needed to train a new health physicist will take most of the two years prior to the anticipated surge.

Feedback on the NRC's Program

The Program was complimentary of the training provided by NRC. They also appreciated that NRC will reach out to the states to solicit attendance for classes that have vacancies. The Program has benefited from the ability to fill these vacant seats in training classes.

The Program commented on the medical webinars that NRC has been hosting. They find these to be very helpful to the Program. It makes training all staff that much easier. They also requested that NRC consider expanding on the webinars to include other non-medical areas.

The Program noted they often feel overwhelmed with the volume of expectations placed upon them from NRC. They often feel inundated with requests for information, often with very short deadlines to meet. These requests often come at a rapid pace and while the Program would like to provide input, they simply often don't have the time when deadlines for responding are short.

Organization

The Arkansas Program is administered by the Radioactive Materials Program. The Radioactive Materials Program is one of three programs in the Radiation Control Section, which is part of the Health Systems Licensing and Regulation Branch. The Branch is part of the Center for Health Protection within the Arkansas Department of Health.

There have been no significant organizational changes since the 2013 IMPEP review that impacted the Program.

Program Budget/Funding

The Program's budget is stable but as described above, reserves in the fee fund are being affected by the transfer of expenditures originally funded through the general revenue fund to the fee fund. This has resulted in the need to request a fee increase in 2016, which if approved would become effective in 2017.

Technical Staffing and Training (2013 IMPEP: Satisfactory)

At the time of the Periodic Meeting, the Program was budgeted for six health physicist positions, two management positions and one administrative position. The Program reported that since the 2013 IMPEP review, they lost three health physicists and hired two. That remaining health physicist position has been vacant for approximately one year. As noted above, that vacant position is of concern to the Program because they anticipate an increase in workload, specifically in the licensing area to begin within the next two years. At the present time the Program is not behind on inspections or licensing actions.

During inspector accompaniments performed as part of the 2013 IMPEP review, it was noted that while the inspectors used Arkansas inspection report forms for inspections, these forms did not contain specific inspection guidance. Program managers indicated that the expectation of the staff was to use NRC's inspection procedures. When questioned, the staff did not recognize this was the expectation. During the IMPEP, the Program Manager addressed this concern and revised procedure RAM-01.10 to clearly articulate that the NRC inspection procedures should be used as guidance to perform inspections and also included a link to the NRC's web page for inspection procedures. This led to the following recommendation being made for the Program:

Recommendation: The review team recommends that the State provide refresher training to the inspection staff on the inspection procedures and incorporate the inspection procedures into the training and qualification program for inspectors to ensure consistent implementation during inspections.

Status: As previously noted, the Program uses NRC inspection procedures for all inspections they perform. Following the 2013 IMPEP review, the Program developed a new procedure for refresher training which they implemented and are following. This has also been incorporated into their training and qualification program. In addition to that, they also have all hands meetings every two weeks to discuss licensing and inspection activities. During these meetings they discuss procedures and strategies for upcoming inspections as well as previously performed inspections. They also collectively discuss licensing actions and use this as an

additional training opportunity. The Program has implemented the requirements for Inspection Manual Chapter 1248 which in part, requires documentation of continuing education training.

Status of Materials Inspection Program (2013 IMPEP: Satisfactory)

Technical Quality of Inspections (2013 IMPEP: Satisfactory)

The Program had conducted 152 Priority 1, 2, and 3 inspections since the last IMPEP review. None were conducted overdue. At the time of the 2013 IMPEP review, the Program met the 20 percent requirement for reciprocity inspection in each of the four years reviewed. Following the 2013 IMPEP review, the Program has continued to meet that requirement. Supervisory accompaniments of inspectors are being performed by the Program Manager and are being performed annually for each qualified inspector.

Technical Quality of Licensing Actions (2013 IMPEP: Satisfactory but needs improvement)

The Program reported they currently have 197 specific licensees. All licensing actions are handled in a timely manner. The Program has received 276 licensing actions since the 2013 IMPEP review. These included 226 amendments, 14 terminations, 27 renewals and 9 new licenses.

The 2013 IMPEP review team identified a weakness regarding the Program's implementation of NRC's pre-licensing guidance. The Program's practice was to prepare the license and subsequently hand-deliver the license during an onsite visit. They were not specifically following the guidance found in NRC's pre-licensing guidance issued on September 22, 2008, and transmitted to the Agreement States via FSME Letter RCPD-08-020, "Requesting Implementation of the Checklist to Provide a Basis for Confidence That Radioactive Material Will Be Used as Specified on a License and the Checklist for Risk-significant Radioactive Material." This weakness lead to the following recommendation:

Recommendation: The review team recommends that the State revise its licensing procedures to include current guidance to determine and document the basis of confidence for all new applications and transfers of control that radioactive materials will be used as intended, prior to authorizing the material on the license; and provide staff with training on the process and changes to the Program's licensing procedures.

Status: Following the review the Program pulled all licensing actions related to new licenses and ownership changes back to 2006 when the original pre-licensing guidance was issued to determine if any licenses were issued to entities who did not meet the pre-licensing criteria. That review did not identify anyone who received a license who did not meet the pre-licensing criteria. The Program's licensing procedures were revised to include the most current pre-licensing guidance and staff were trained on the new procedures. They now use the checklists and follow the guidance when issuing licenses.

Technical Quality of Incidents and Allegations (2013 IMPEP: Satisfactory)

The Program continues to be sensitive to notifications of incidents and allegations. Incidents are reviewed for their effect on public health and safety. Staff is dispatched to perform onsite

investigations when necessary. The Office has placed a high emphasis on maintaining an effective response to incidents and allegations.

Since the 2013 IMPEP review, the Program has reported 10 events to the NMED database. At the time of the meeting, only 2 of those events were still open and being followed. There were no allegations referred by NRC or received by the Program since the 2013 IMPEP review.

During the 2013 review it was noted that one medical event was reported that involved brachytherapy with yttrium-90 microspheres. Program staff did not respond to this event even though the Program Manager had an expectation that all medical events receive an onsite response. The team noted two contributing factors leading up to this failure to respond to that event. The first contributing factor was that the facility where it occurred was a large broad scope facility with medical staff who were very familiar with the procedure being performed. Program staff stated they were not as familiar with yttrium-90 microsphere procedures and the associated administration equipment as was the licensee, so they relied on the licensee to independently take corrective actions and report to those to the Program. The second contributing factor was that the Program historically received so few medical event reports, they had not developed a formal procedure for responding to medical events. The Program's procedure RAM-04.4 "Responding to Events Involving Radioactive Material" described general event response procedures but did not contain specific guidance associated with responding to or evaluating medical events. The review team determined that due to the infrequency of medical events that occurred in the State and the Program's inexperience in responding to medical events, that the Program would benefit from procedures addressing medical events. This resulted in the following recommendation:

Recommendation: The review team recommends that the State strengthen its incident response program by developing guidance and providing training to the staff on evaluating and responding to reported medical events.

Status: The Program enhanced their guidance on responding to all events, with an emphasis on how they evaluate and respond to medical events. When notification of an event comes in, staff in the office convene and determine the appropriate response. Their procedures now require an immediate response for therapeutic procedures and a quick, but not necessarily an immediate response, to other medical events. The staff was trained on the enhanced procedures.

Regulations and Legislative Changes (2013 IMPEP: Satisfactory)

Arkansas became an Agreement State on July 1, 1963. Legislative authority to create a radiation control agency and enter into an Agreement with NRC was granted in Arkansas Code Annotated § 20-21-201 et seq. The State Board of Health is designated as the State Radiation Control Agency, with the day-to-day administrative duties being carried out by the Director of the Department of Health's designee in accordance with A.C.A. § 20-21-206.

Since the 2013 IMPEP review, Act 1258 of 2015, as codified in A.C.A. § 25-15-204, provides that each rule adopted by the Department is effective ten days (previously 30 days) after filing of the final rule with the Secretary of State unless a later date is specified. Pursuant to Amendment 92 to the Constitution of Arkansas of 1874 and Act 1258 of 2015, proposed rules

now have to be reviewed and approved by the Administrative Rules and Regulations Subcommittee of the Arkansas Legislative Council. Proposed rules still just require a review by the Legislative Committee on Public Health, Welfare, and Labor. Also, the Governor's Office now requires their review of proposed rules pursuant to Executive Order 15-02.

At the time of the 2013 IMPEP review, no amendments were overdue for adoption, nor were any amendments overdue for adoption during the 2015 Periodic Meeting.

Arkansas' regulatory equivalent to 10 CFR Part 37 has been developed and will be effective on March 1, 2016. The proposed rule was reviewed by the NRC with no comments. The Department is anticipating that the final rule will be reviewed by the NRC by the beginning of December 2015.

Arkansas Initiatives

Arkansas currently has one significant ongoing decommissioning project. That is the Southwest Experimental Fast Oxide Reactor (SEFOR) located in Washington County, Arkansas, which at the present time is operated by the University of Arkansas-Fayetteville (University). This reactor was completed in 1969 at the direction of the Atomic Energy Commission to test the feasibility of breeder reactors in the production of electricity. The reactor closed in 1972 and the fuel was removed. The University took over ownership in 1975 and conducted research until 1986. The United States Department of Energy (DOE) is currently funding decommissioning of the site. In 2009 the estimated cost of decommissioning the site was \$16M. Today the estimated cost of decommissioning is \$28M, but DOE has only appropriated \$9M for the project so far. The University would be willing to complete decommissioning if DOE would release the appropriated funds, but that has not happened as of October 15, 2015.

CONCLUSIONS:

The Program continues to be an effective, well maintained Agreement State program. There is presently one staff level vacancy. The Program is effectively managing its licensing and inspection activities. The Program is responding to incidents and allegations as appropriate and has no overdue regulation amendments.

NRC staff recommends that the next IMPEP review be conducted as scheduled in June 2017.