



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

February 18, 2022

Matthew McKinley, Administrator
Radiation Health Program
Cabinet for Health and Family Services
275 East Main Street, HS1C-A
Frankfort, KY 40621-0001

Dear Mr. McKinley:

A periodic meeting with you and your staff was held on January 11, 2022. The purpose of this meeting was to review and discuss the status of the Kentucky 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) 337-5214 or via e-mail at Monica.Ford@nrc.gov to discuss your concerns.

Sincerely,

Monica Lynn Ford

Monica Lynn Ford
Regional State Agreements Officer
Division of Radiological Safety and Security
U.S. NRC Region I

Enclosure:
January 11, 2022 Periodic Meeting Summary

cc w/encl.: Allyson Stout, Supervisor
Radiation Health Branch

M. McKinley

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

PERIODIC MEETING WITH THE COMMONWEALTH OF KENTUCKY

TYPE OF OVERSIGHT: NONE

January 11, 2022

Final

Enclosure

PERIODIC MEETING PARTICIPANTS

Nuclear Regulatory Commission

- Tamara Bloomer: Deputy Director, Division of Radiological Safety and Security, Region I
- Monica Ford: State Agreements Officer, Region I
- Farrah Gaskins: State Agreements Officer, Region I

Commonwealth of Kentucky

- Matthew McKinley: Administrator, Radiation Health Program
- Allyson Stout: Supervisor, Radiation Health Branch
- Anjan Bhattacharyya, Radiation Health Specialist III
- Kasey Gravitt, Radiation Health Specialist II
- Russell Hestand, Radiation Health Specialist III
- Curt Pendergrass, Radiation Health Specialist III
- Angela Wilbers, Radiation Health Specialist III

Kentucky 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 Commonwealth of Kentucky. The meeting was held virtually via Microsoft TEAMS on January 11, 2022, which covered the period January 18, 2020 – January 10, 2022. The meeting was conducted in accordance with NMSS Procedure SA-116 “Periodic Meetings between IMPEP Reviews,” dated October 6, 2021. For the purpose of this summary the COVID-19 pandemic (pandemic) is defined as the timeframe covering March 2020 – January 10, 2022.

The Kentucky Agreement State Program is administered by the Radiation Health Branch which is located within the Department for Public Health. The Department for Public Health is a part of the Cabinet of Health and Family Services. The Radiation Health Branch is comprised of three sections: the Radioactive Materials Section, the Radiation Producing Machine Section, and the Radiation/Environmental Monitoring Section. At the time of the periodic meeting, the Kentucky Agreement State Program regulated approximately 332 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 Commonwealth of Kentucky.

The Kentucky Agreement State Program last underwent an Integrated Materials Performance Evaluation Program (IMPEP) review January 13-17, 2020. A Management Review Board meeting to discuss the outcome of the IMPEP review was held on April 14, 2020. Based on the findings presented, the MRB found the Kentucky Agreement State Program’s performance satisfactory for the performance indicators: Technical Staffing and Training, Status of Materials Inspection Program, Technical Quality of Inspections, Technical Quality of Licensing Actions, Technical Quality of Incident and Allegation Activities, and Sealed Source and Device Evaluation Program, and satisfactory but needs improvement for the performance indicator Legislation, Regulations, and Other Program Elements. The MRB found the Kentucky Agreement State Program adequate to protect public health and safety and compatible with the NRC’s program. No recommendations were made for improved program performance. The MRB directed that the next IMPEP review take place in approximately four years and that a periodic meeting take place in two 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.

2.1 Technical Staffing and Training (2020 IMPEP review: Satisfactory)

Kentucky’s Agreement State Program is comprised of one director, one supervisor, and six technical staff members, when fully staffed. This equates to 7.2 full-time equivalent (FTE) for the Agreement State program. At the time of the 2020 IMPEP review there was one vacant position at the technical staff level and since the IMPEP review a technical staff member took a job with the Radiation Producing Machines Section and the

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supervisor retired. A new supervisor was hired approximately 4 months after the previous supervisor retired. Additionally, one technical staff person was hired. At the time of this meeting the Kentucky Agreement State Program still had one vacant technical staff position. The vacancy was originally posted in 2021 with the other open technical staff position. However, there was only one qualified applicant that applied to that vacancy announcement. The unfilled vacancy is expected to be posted no later than March 1, 2022. The ability to hire and retain qualified staff has been an issue for this program for the last several years.

The Kentucky Agreement State Program has a license reviewer and inspector training and qualification manual compatible with the NRC's Inspection Manual Chapter 1248. Currently one technical staff and the program supervisor are going through the license reviewer and inspector qualification process. Each has been assigned a training and qualification journal to complete. Each fully qualified inspector/license reviewer is responsible for tracking their refresher training and ensuring that they receive 24 hours of training every 24 months. No impacts were noted for this indicator as a result of the pandemic.

2.2 Status of Materials Inspection Program (2020 IMPEP review: Satisfactory)

The Kentucky Agreement State Program reported that it has conducted 96 Priority 1, 2, and 3 inspections and 2 initial inspections since the 2020 IMPEP review. None of these inspections were performed overdue. The success in completing timely inspections can be partially attributed to a new data management system that went into use in April 2021. The Kentucky Agreement State Program's reciprocity process is compatible with Inspection Manual Chapter 2800. The Kentucky Agreement State Program's goal is to inspect 20% or more of reciprocity licensees following a risk-informed approach. In calendar year 2020 50 percent of reciprocity applicants were inspected and in calendar year 2021 71 percent of reciprocity applicants were inspected.

All inspection results are signed by the Radiation Control Program Director and the goal is to issue all inspection results within 30 days from the end of the inspection. This goal is being met by the program and is achievable through the use of electronic signatures. No impacts were noted for this indicator as a result of the pandemic.

2.3 Technical Quality of Inspections (2020 IMPEP review: Satisfactory)

The Kentucky Agreement State Program has inspection procedures equivalent to the NRC's Inspection Manual Chapter 2800 and the NRC's Inspection Procedures for specific modalities. Inspection results are not issued in the field even if it is a clear inspection, although preliminary findings are discussed with the licensee at the exit brief. All inspection reports get peer reviewed before being reviewed by the Supervisor and then transmitted to the Radiation Control Program Director for signature.

Management's goal is to accompany all inspectors at least once each calendar year. All inspectors were accompanied in calendar years 2020 and 2021. No impacts were noted for this indicator as a result of the pandemic. Inspections have transitioned to a hybrid format where records that are able to be transmitted electronically are reviewed remotely. Additionally, a memo to staff was issued detailing how to handle inspections during the pandemic. Staff may also use enforcement discretion during

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inspections, if they determine radiation safety committee meetings were postponed as a result of the pandemic.

One unique item the Kentucky Agreement State staff is dealing with is the transfer of control for coal mines that went bankrupt. There are companies who take over mines with the notation that they can clean it up for less than the clean-up bond associated with the site. The company then keeps any remaining money left over as a profit. However, when the companies acquire these mines, they do not realize that radioactive material in the form of fixed gauges potentially exists. The Kentucky Agreement State Program staff has been working to address this issue and ensure the gauges are properly disposed of.

2.4 Technical Quality of Licensing Actions (2020 IMPEP review: Satisfactory)

The Kentucky Agreement State Program has completed 428 licensing actions since the last IMPEP review. At the time of the periodic meeting there were 13 licensing actions in house. The longest action has been in process since September 2021. All licensing actions undergo an initial review, then are peer reviewed, and finally are reviewed by the Supervisor before being signed by the Program Administrator and issued. Licenses go through an amendment in entirety which is similar to a renewal every five years. The Kentucky Agreement State Program utilizes the NRC's NUREG 1556 series when processing licensing actions. Staff perform pre-licensing site visits in accordance with applicable guidance. No impacts were noted for this indicator as a result of the pandemic.

2.5 Technical Quality of Incident and Allegation Activities (2020 IMPEP review: Satisfactory)

There have been eleven reportable events since the 2020 IMPEP review. All reportable events have been reported to the NRC accordingly and appropriate follow-up through the Nuclear Materials Events Database has occurred. All staff is aware of event reporting criteria and the need to complete and close events in NMED.

There has been one allegation received, which came from the NRC. The Kentucky Agreement State Program is aware of the need to maintain an effective response to allegations. Allegations, when received, are quickly reviewed for their effect on public health and safety and staff is dispatched to perform onsite investigations when necessary. No impacts were noted for this indicator as a result of the pandemic.

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

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3.1 Compatibility Requirements (2020 IMPEP review: Satisfactory but needs improvement)

No legislation affecting the Kentucky Agreement State Program was passed since the last IMPEP review. Kentucky's rules and regulations became subject to "sunset" laws during the last IMPEP review period. This requirement is described in KRS 13A.3102 which became effective June 29, 2017. The statute states in part that "(1) An ordinary administrative regulation with a last effective date on or after July 1, 2012, shall expire seven (7) years after its last effective date, except as provided by the certification process in KRS 13A.3104; (2) An ordinary administrative regulation with a last effective date before July 1, 2012, shall expire on July 1, 2019, except as provided by the certification process in KRS 13A.3104." The certification process is relatively simple and just involves acknowledgement that the regulation is still needed. No regulations involving the agreement state program have expired since the statute's implementation.

In the past adoption of compatible regulations has been a difficult process. The Kentucky Agreement State Program is in the process of adopting applicable sections of NRC's Title 10 Code of Federal Regulations (CFR) by reference. Currently, the Kentucky Agreement State Program staff are working on incorporating the NRC's comments on the most recent sections of the adoption by reference. Three regulation amendments are overdue for adoption (Regulation Amendment Tracking Sheet (RATS) IDs: 2012-4; 2013-2; and 2018-2). Program management stated that they are hopeful these rules will become effective by September 2022. No impacts were noted for this indicator as a result of the pandemic.

3.2 Sealed Source and Device Evaluation (SS&D) (2020 IMPEP review: Satisfactory)

The Kentucky Agreement State Program has one device manufacturer with 11 active SS&D registrations. One SS&D related action was received by the program since the last IMPEP review. The Kentucky Agreement State Program has a training and qualification manual that is compatible with the NRC's Inspection Manual Chapter 1248 Appendix D and has three fully qualified SS&D reviewers. Periodically, the Nuclear Materials Events Database is queried to see if any incidents involving items made by the SS&D manufacturer have happened. If any are found Kentucky Agreement State Program staff evaluate the incident to determine if there is any potential for a generic issue. No impacts were noted for this indicator as a result of the pandemic.

3.3 Low-Level Radioactive Waste Disposal (LLRW) Program (2020 IMPEP review: Not rated)

The Kentucky Agreement State Program's LLRW program consists of oversight at one facility; Maxey Flats Disposal Site (MFDS), which is located in eastern Kentucky. MFDS operated as a commercial LLRW disposal facility from May 1963 through December 1977. The site was added to the National Priorities list in 1986, a record of decision was issued in 1991, and a consent decree was entered in 1995. The consent decree in Section I Part C states: "Pursuant to the requirements of the AEA, the Site is owned by the Commonwealth of Kentucky ("Commonwealth"). The Commonwealth, through the Cabinet for Human Resources, exercises regulatory authority over the Site pursuant to its status as an "Agreement State" under the AEA and the Kentucky Cabinet for Natural Resources and Environmental Protection is the current licensee of the Site."

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The Kentucky Agreement State Program maintains a license for the MFDS which is issued to the Kentucky Energy and Environment Cabinet. The license authorizes possession and activities associated with maintenance related to the closed LLRW disposal site. The 2020 IMPEP team determined this indicator did not need to be reviewed because there were no changes or issues in the closure phase and status of MFDS since the 2016 IMPEP review that would impact safety. Additionally, the recommendation made as a result of the 2016 IMPEP review was closed.

4.0 SUMMARY

The Kentucky Agreement State program continues to be an effective and well-maintained agreement state program. No impacts have been seen as a result of the pandemic. Additionally, no major concerns were identified in any of the common and non-common performance indicators. Adoption of compatible regulations continues to challenge the Kentucky Agreement State Program. The adoption by reference of the 10 CFR is still in process. Once complete it is expected that the ongoing challenges with timely regulation adoption will be addressed. Based on the information discussed during the periodic meeting the next IMPEP review of the Kentucky Agreement State Program should be held in fiscal year 2024 which is in alignment with the Management Review Board direction given as a result of the 2020 IMPEP review.