



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 15, 2018

MEMORANDUM TO: Chairman Svinicki
Commissioner Baran
Commissioner Burns

FROM: Marc L. Dapas, Director */RA for S. Moore/*
Office of Nuclear Material Safety
and Safeguards

SUBJECT: REPORT ON AGREEMENT STATES' AND U.S. NUCLEAR
REGULATORY COMMISSION'S RADIOACTIVE MATERIALS
PROGRAMS FOR CALENDAR YEAR 2017

Enclosed is the annual report to inform the Commission of the status of the Agreement State and U.S. Nuclear Regulatory Commission radioactive materials programs, as required by the June 30, 1997, Staff Requirements Memorandum on SECY-97-054, "Final Recommendations on Policy Statements and Implementing Procedures for: 'Statement of Principles and Policy for the Agreement State Programs' and 'Policy Statement on Adequacy and Compatibility of Agreement State Programs.'"

Enclosure:
Report on Agreement States' and NRC's
Radioactive Materials Programs

cc: SECY
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COMMISSION'S RADIOACTIVE MATERIALS PROGRAMS FOR CALENDAR
YEAR 2017

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ANNUAL REPORT FOR AGREEMENT STATE AND U.S. NUCLEAR REGULATORY COMMISSION RADIOACTIVE MATERIALS PROGRAMS

CALENDAR YEAR 2017

The U.S. Nuclear Regulatory Commission (NRC) utilizes the Integrated Materials Performance Evaluation Program (IMPEP) to periodically review the Agreement State and NRC radioactive materials programs to ensure that public health and safety are adequately maintained, and to ensure that Agreement State programs are compatible with the NRC's program. Through IMPEP reviews and Management Review Board (MRB) meetings, Agreement State and NRC radioactive materials programs are determined to be adequate to protect public health and safety if the administration of these programs provides reasonable assurance for the protection of public health and safety in regulating the use of radioactive material. Adequacy findings under IMPEP result in one of three conclusions: Adequate to Protect Public Health and Safety, Adequate but Needs Improvement, or Inadequate to Protect Public Health and Safety. In addition, Agreement State Programs are determined to be compatible with the NRC's regulatory program when Agreement State Programs do not create conflicts, duplications, gaps, or other conditions that jeopardize an orderly pattern in the regulation of agreement material (source, byproduct, and small quantities of special nuclear material as identified by Section 274b. of the Atomic Energy Act, as amended) on a nationwide basis. The IMPEP review compatibility findings for Agreement State Programs are either compatible or not compatible.

The frequency of IMPEP reviews for a particular program range from 1 – 5 years, based on the program's performance. All reviews are conducted in accordance with NRC Management Directive (MD) 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)," dated February 26, 2004, and are conducted by teams of NRC and Agreement State staff members. The IMPEP teams use the established criteria in MD 5.6, guidance documents maintained by the Office of Nuclear Material Safety and Safeguards, and skills and knowledge acquired at a 2 1/2-day training program for IMPEP team members, to effectively assess each program's adequacy to maintain public health and safety and each Agreement State program's compatibility with the NRC's program. The NRC staff also conducts periodic meetings between IMPEP reviews to remain knowledgeable of the status of Agreement State and NRC programs.

Attachment 1 is the "Summary of Agreement States' Adequacy and Compatibility Statuses as of March 2, 2018." Thirty-two of the 37 Agreement State programs currently have an adequacy finding of "adequate to protect public health and safety." The remaining five states, Arkansas, Massachusetts, Mississippi, North Carolina, and Rhode Island, have adequacy findings of "adequate to protect public health and safety, but needs improvement." Regarding compatibility, 34 of the 37 Agreement State programs have a compatibility finding of "compatible with the NRC's program." The remaining three states, Colorado, Kentucky, and New York, have compatibility findings of "not compatible with the NRC's program." As shown in Attachment 2, all NRC radioactive materials programs currently have adequacy findings of "adequate to protect public health and safety."

The NRC takes a graded approach to addressing programmatic weaknesses in Agreement State programs. This includes monitoring, heightened oversight, probation, and suspension.

Enclosure

These measures are described in detail in MD 5.6. Under the processes of monitoring and heightened oversight, the NRC staff works collaboratively with the Agreement States to ensure that they have a full understanding of the issues that need to be addressed, and implement appropriate corrective actions to progress toward re-establishing fully satisfactory program performance. In the least severe cases, Agreement State programs are placed on monitoring. For monitoring, Agreement State managers and staff must participate in quarterly calls with the NRC staff to discuss program status. Under heightened oversight, an Agreement State is required to develop a Program Improvement Plan (Plan) to address IMPEP findings and recommendations. The Plan is submitted to the NRC for approval prior to implementation. An Agreement State program on heightened oversight must also submit status reports prior to bimonthly conference calls conducted by the NRC staff with the Agreement State managers and staff to discuss program status. The decision to put an Agreement State program on either monitoring or heightened oversight is made by the MRB involved in reviewing the results of the associated IMPEP or periodic meeting. More stringent measures to address program weaknesses include placing the program on probation or suspending the 274b. Agreement. These measures require approval from the Commission. In only one instance (Georgia 2013 probation), has an Agreement State program been placed on any measure other than monitoring or heightened oversight.

Currently, six Agreement State programs are on monitoring and a discussion of each Agreement State program is provided below. A summary of recent activities related to the Agreement State programs on monitoring is presented in Attachment 3. In addition, discussions on Colorado, Kentucky, and North Carolina are included because these Agreement State programs have findings of either “adequate to protect public health and safety, but needs improvement” or “not compatible.” Also included is a narrative on Utah being found compatible.

AGREEMENT STATES ON MONITORING

Arkansas:

The Arkansas Agreement State program was placed on monitoring following its November 27 – December 1, 2017, IMPEP review and associated February 2018 MRB meeting due to the unsatisfactory rating for the indicator Technical Quality of Licensing Actions. The Arkansas Agreement State program was found adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. Quarterly calls are beginning and a followup IMPEP review will be scheduled for June 2019.

Georgia:

The Georgia Agreement State program was removed from heightened oversight and placed on monitoring following its May 2016 IMPEP review and associated August 2016 MRB meeting. The MRB acknowledged the performance improvements in the State of the Georgia program since 2012. The MRB also directed that a periodic meeting with the Georgia program be held in May 2017, with a second meeting approximately 18 months thereafter. At the August 2017 MRB meeting to discuss the results of the May 2017 periodic meeting, the MRB noted the State's continued progress and directed that: the State continue on monitoring; quarterly calls continue with the NRC; the next periodic meeting be conducted as scheduled in November 2018; and the next IMPEP review be conducted as planned in May 2020.

Massachusetts:

The Massachusetts Agreement State program was placed on monitoring following its July 2014 IMPEP review and associated October 2014 MRB meeting. The Massachusetts program was found to be adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. The IMPEP team identified weaknesses in the technical quality of the program's licensing and inspection activities. The NRC staff has conducted quarterly monitoring calls with the Massachusetts program staff and managers and held periodic meetings with them in July 2015 and March 2017. The MRB continues to support Massachusetts being on monitoring and an IMPEP review being conducted as planned in June 2018.

Mississippi:

The Mississippi Agreement State program was placed on monitoring following its April 2017, IMPEP review and associated July 2017 MRB meeting. The Mississippi program was found adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. The IMPEP team identified deficiencies in the technical quality of the program's licensing actions and incident and allegation activities, as well as efforts to ensure compatibility. The NRC staff has begun quarterly monitoring calls with Mississippi staff and managers and is preparing for a periodic meeting on April 25, 2018. The next IMPEP review is scheduled to take place in April 2021.

New York:

The New York Agreement State program was removed from heightened oversight and placed on monitoring following its March 2014 IMPEP review and associated August 2014 MRB meeting. The IMPEP review team determined that program staff/management had corrected a number of performance weaknesses; however, the IMPEP review team found that while progress has been made by the program in addressing some overdue regulations, timely adoption of regulations remained an issue. The New York program was found to be adequate to protect public health and safety, but not compatible with the NRC's program. The MRB directed the NRC staff to continue with monitoring of the New York program focusing on the timely adoption of regulations as well as other open recommendations in the areas of staffing and licensing. The NRC staff conducted quarterly monitoring calls and held a periodic meeting in May 2016. Following the May 2016 periodic meeting, the MRB directed the NRC staff to continue with monitoring and schedule the next IMPEP review as planned, in March 2018.

Rhode Island:

The Rhode Island Agreement State program remained on monitoring following its March 2016 IMPEP review and associated June 2016 MRB meeting. The Rhode Island program was found to be adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. The review team identified performance weaknesses involving technical staffing levels and overdue inspections. Inadequate inspection tracking and staff vacancies were the main contributors to the overdue inspections. The MRB directed that a periodic meeting be held with the Rhode Island program in March 2017 with a second meeting approximately 18 months thereafter. At the July 2017 MRB meeting to discuss the results of the March 2017 periodic meeting, the MRB noted the program's progress and directed that a periodic meeting with program staff and management be conducted in September 2018, and that the next routine IMPEP review be scheduled in 2020, as previously planned.

AGREEMENT STATES EITHER ADEQUATE BUT NEEDS IMPROVEMENT OR NOT COMPATIBLE

The Colorado, Kentucky, and North Carolina Agreement States have overall program findings of either “adequate to protect public health and safety, but needs improvement” or “not compatible,” however, these programs are not subject to monitoring or heightened oversight.

Colorado:

The Colorado Agreement State program was found to be “not compatible” following its April 2014 IMPEP review and associated June 2014 MRB meeting due to a number of modifications to Colorado statutes that were not compatible with NRC requirements. The modifications were made by the State Legislature without concurrence by the Colorado Radiation Control Program. Shortly after the 2014 IMPEP review, Colorado program management provided a path forward to resolve the statutory compatibility issues. The MRB concluded that the path forward was reasonable, and therefore, the Colorado program did not warrant either monitoring or heightened oversight. Subsequently, Colorado has made several legislative and regulatory changes that successfully address the statutory compatibility issues identified in the 2014 IMPEP report. The next IMPEP review of the Colorado program is scheduled to be conducted in April 2018.

Kentucky:

The Kentucky Agreement State program was found to be “not compatible” with the NRC’s program following its July 2016 IMPEP review and associated October 2016 MRB due to Kentucky’s failure to adopt regulations, or other legally binding requirements, in a timely manner. At the time of the 2016 IMPEP review, Kentucky was developing its process to allow all NRC regulations to be adopted by reference. The MRB concluded that the path forward to resolve the untimely adoption of regulations was reasonable, and therefore, the Kentucky program did not warrant either monitoring or heightened oversight. A periodic meeting has been scheduled with the program staff/management for May 2018 and the next IMPEP review with Kentucky is planned for 2020.

North Carolina:

The North Carolina Agreement State program was found to be “adequate to protect public health and safety, but needs improvement” following its March 2014 IMPEP review and associated June 2014 MRB meeting due to performance issues involving technical staffing and training, overdue inspections, and sealed source and device evaluations. Following the 2014 IMPEP review, but prior to the MRB, the North Carolina program corrected many of the performance issues and had a plan in place to resolve the remaining issues. As a result, the MRB concluded that the program’s path forward was reasonable, and determined that the performance issues did not warrant either monitoring or heightened oversight of the program. The NRC staff conducted periodic meetings with the North Carolina program in 2015 and 2016. The next IMPEP review with North Carolina is scheduled to be conducted in March 2018.

AGREEMENT STATE RECENTLY FOUND COMPATIBLE

Utah:

The Utah Agreement State program was found to be “not compatible” with the NRC’s program following its July 2015 IMPEP review and associated October 2015 MRB meeting due to revisions to Utah’s statutes addressing financial surety. Utah program management

acknowledged the NRC's concerns over the legislative changes and committed to work with the NRC to resolve the matter. The MRB determined that the statutory compatibility issues did not warrant either monitoring or heightened oversight of the program, and directed that a followup IMPEP review be conducted in December 2017. Following the 2015 review, Utah adopted revised legislation to address the identified issues. While onsite for the December 2017 followup IMPEP review, the team reviewed and discussed the revised legislation and associated files with Utah program staff to ensure Utah is fully compatible with regards to the implementation of this revised legislation. The team determined that Utah resolved the compatibility issues noted during the previous IMPEP review. At the February 2018 MRB meeting to discuss the results of the December 2017 followup IMPEP review, the MRB found the Utah Agreement State Program to be adequate to protect public health and safety and compatible with the NRC's program. The next full IMPEP review is planned for July 2019.

TRENDING ANALYSIS

The NRC staff evaluated Calendar Year (CY) 2017 IMPEP review outcomes for trends in four areas: performance indicator results; adequacy and compatibility status; programs on monitoring or heightened oversight; and recommendations issued to address program weaknesses.

In CY 2017, there were nine IMPEP reviews. Collectively, 52 performance indicators were assessed during the CY 2017 IMPEP reviews: 47 performance indicators were found to be satisfactory and 5 were found to be less than satisfactory. The performance indicator outcomes are consistent with the overall results of IMPEP reviews in CY 2014, CY 2015, and CY 2016. In addition, the data shows the National Materials Program (NMP)¹ is performing above the IMPEP benchmark data² (1996–2012).

Incorporating the CY 2017 IMPEP results into the overall summary of Agreement States' adequacy and compatibility status indicates that 36 radioactive materials programs (32 Agreement States and 4 NRC programs (3 regions and headquarters Sealed Source and Device Program)) are adequate to protect public health and safety. Five materials programs are adequate to protect public health and safety, but need improvement. With respect to program adequacy, CY 2017 results indicate a slight negative trend relative to CY 2016 where three programs were adequate, but need improvement. However, it is worth noting that the results for CY 2017 more closely reflect CY 2014 and CY 2015 results, where six and five programs, respectively, were found adequate to protect public health and safety, but need improvement.

The CY 2017 IMPEP results indicate that 34 of 37 Agreement State programs were found to be compatible with the NRC's program. The compatibility status has improved since

¹ The NMP is a term used to describe the broad collective effort within which both the NRC and the Agreement States function in carrying out their respective regulatory programs for radioactive material oversight. The mission of the NMP is to provide a coherent national system for the regulation of radioactive material with the goal of protecting public health and safety through compatible regulatory programs.

² In 2013, the NRC staff performed a retrospective analysis of IMPEP data from 1996–2012 and established a baseline score for performance. A maximum score of 5.0 equates to all indicators being found satisfactory. The baseline score is set at 4.6. Results for CY 2014, CY 2015, CY 2016, and CY 2017 are 4.7, 4.8, 4.7, and 4.8 respectively.

CY2014 – 2016 with three programs now being found not compatible as opposed to four programs in previous years. Historically, Agreement State programs have been found “not compatible” when these programs failed to adopt regulation amendments in a timely manner. Currently, one of the three programs is “not compatible” due to changes in the State’s statutes and legislation, and not due to overdue regulation amendments.

At the completion of CY 2017 IMPEP reviews, there were six Agreement State programs on monitoring and no programs on heightened oversight. Although this might appear to be a negative trend of performance in the context of the NMP in that for CY 2016, four programs were on monitoring and no programs were on heightened oversight, the number of Agreement State programs on monitoring during CY 2017 actually remained consistent with the years previous to 2016.

Recommendations are made by IMPEP review teams associated with performance weaknesses to promote Agreement State program improvement. In analyzing recommendations (that were issued based on MRB approval/endorsement), the NRC staff assesses the reasons the recommendations are issued along with the number of programs exhibiting the same performance weakness(es). For CY 2017, recommendations were made with respect to several areas, including multiple recommendations focused on ensuring Agreement State staff have access to, are properly trained on, and follow updated guidance and procedures involving assigned tasks. Historically, IMPEP review teams have issued recommendations concerning staff retention/vacancies. While recommendations in this area were not notable in terms of a specific trend for CY 2017, Agreement State programs continue to experience issues with staff retention and filling vacancies. In addition, the current collection of recommendations indicates that Agreement State programs may need to update their guidance and focus on ensuring current staff are cognizant of, and adhering to, that guidance.

The NRC staff uses the results of trending analysis to enhance the IMPEP program and improve communication within the NMP. The NRC staff typically presents its analysis of the IMPEP program to the Organization of Agreement States (OAS) at the annual OAS meeting.

CONCLUSION

The IMPEP reviews are important in terms of ensuring that public health and safety is being adequately maintained and that Agreement State programs are compatible with the NRC’s program. Inclusion of the Agreement State staff in the IMPEP review process provides for a productive exchange of information. The NRC and the Agreement States both benefit from IMPEP’s blending of State and Federal resources. The Agreement States have provided significant input to the IMPEP process, and are expected to continue to play an instrumental role with respect to ensuring consistent implementation of the NMP in protecting the public health and safety and preventing the malevolent use of radioactive materials while allowing for their beneficial uses.

Attachments:

1. Summary of Agreement States’ Adequacy and Compatibility Statuses
2. Summary of NRC Radioactive Materials Programs Adequacy Statuses

3. Heightened Oversight and Monitoring
Status Chart

SUMMARY OF AGREEMENT STATES' ADEQUACY AND COMPATIBILITY STATUSES
(As of March 2, 2018)

STATE	FISCAL YEAR OF REVIEW	ADEQUACY FINDING	COMPATIBILITY FINDING
Alabama	2015	adequate	compatible
Arizona	2016	adequate	compatible
Arkansas	2018	<i>adequate, but needs improvement</i>	compatible
California	2016	adequate	compatible
Colorado	2014	adequate	<i>not compatible</i>
Florida	2015	adequate	compatible
Georgia	2016	adequate	compatible
Illinois	2013	adequate	compatible
Iowa	2017	adequate	compatible
Kansas	2014	adequate	compatible
Kentucky	2016	adequate	<i>not compatible</i>
Louisiana	2016	adequate	compatible
Maine	2015	adequate	compatible
Maryland	2016	adequate	compatible
Massachusetts	2014	<i>adequate, but needs improvement</i>	compatible
Minnesota	2017	adequate	compatible
Mississippi	2017	<i>adequate, but needs improvement</i>	compatible
Nebraska	2016	adequate	compatible
Nevada	2017	adequate	compatible
New Hampshire	2017	adequate	compatible
New Jersey	2015	adequate	compatible

STATE	FISCAL YEAR OF REVIEW	ADEQUACY FINDING	COMPATIBILITY FINDING
New York	2014	adequate	<i>not compatible</i>
North Carolina	2014	<i>adequate, but needs improvement</i>	compatible
North Dakota	2015	adequate	compatible
Ohio	2014	adequate	compatible
Oklahoma	2014	adequate	compatible
Oregon	2017	adequate	compatible
Pennsylvania	2014	adequate	compatible
Rhode Island	2016	<i>adequate, but needs improvement</i>	compatible
South Carolina	2017	adequate	compatible
Tennessee	2016	adequate	compatible
Texas	2014	adequate	compatible
Utah	2018	adequate	compatible
Virginia	2015	adequate	compatible
Washington	2013	adequate	compatible
Wisconsin	2014	adequate	compatible

SUMMARY OF NRC RADIOACTIVE MATERIALS PROGRAMS' ADEQUACY STATUSES
(As of March 2, 2018)

REGION	REVIEW YEAR (FY)	ADEQUACY FINDING
Headquarters Sealed Source and Device Program	2015	adequate
Region I	2015	adequate
Region III	2017	adequate
Region IV	2014	adequate

HEIGHTENED OVERSIGHT AND MONITORING STATUS CHART

(As of March 2, 2018)

State	Last IMPEP Review	Last Contact	Next Contact	Action(s) Due
<i>MONITORING</i>				
Arkansas	11/27 – 12/1/2017	IMPEP review ending 12/1/2017	quarterly call TBD	<ol style="list-style-type: none"> 1. Quarterly calls 2. Followup IMPEP review in June 2019
Georgia	5/9 – 12/2016	quarterly call 11/29/2017	quarterly call 3/28/2018	<ol style="list-style-type: none"> 1. Quarterly calls 2. Periodic meeting in November 2018 3. IMPEP review in May 2020
Massachusetts	7/28 – 8/1/2014	quarterly call 10/30/2017	Quarterly call March 2018	<ol style="list-style-type: none"> 1. Quarterly calls 2. IMPEP review in June 2018
Mississippi	4/24 – 27/2017	quarterly call 2/14/2018	periodic meeting on 4/25/2018	<ol style="list-style-type: none"> 1. Quarterly calls 2. Periodic meeting in April 2018 3. IMPEP review in April 2021
New York	3/17 – 28/2014	quarterly calls 1/31/2018 and 2/2/2018	IMPEP review 3/12-23/2018	<ol style="list-style-type: none"> 1. Quarterly calls 2. IMPEP review in March 2018
Rhode Island	3/7–10/2016	quarterly call 2/28/2018	quarterly call 2 nd quarter CY18	<ol style="list-style-type: none"> 1. Quarterly calls 2. Periodic meeting in September 2018 3. IMPEP review in March 2020