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

May 18, 2021

Chuck Carr Brown, Ph.D., Secretary
Department of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312

Dear Dr. Brown:

On April 27, 2021, the Management Review Board (MRB), which consisted of U.S. Nuclear Regulatory Commission (NRC) senior managers and an Organization of Agreement States MRB member, met to consider the results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the Louisiana Agreement State Program. The MRB Chair in consultation with the MRB, found the Louisiana Agreement State Program adequate to protect public health and safety and compatible with the NRC's program.

The enclosed final report documents the IMPEP team's findings and summarizes the results of the MRB meeting (Section 5.0). Based on the results of the current IMPEP review, the next full review of the Louisiana Agreement State Program will take place in approximately 4 years, with a periodic meeting in approximately 2 years.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Agreement State program. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

Signed by Roberts, Darrell
on 05/18/21

Darrell J. Roberts
Deputy Executive Director for Materials, Waste,
Research, State, Tribal, Compliance, Administration,
and Human Capital Programs
Office of the Executive Director for Operations

Enclosure:
Louisiana Final IMPEP Report

cc: Lourdes Iturralde, Assistant Secretary
Department Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, LA 70821-4312

Jeff Dauzat, Administrator

Office of Environmental Compliance
Emergency & Radiological Services Division
P.O. Box 4312
Baton Rouge, LA 70821-4312

Karen Burgard, Manager
Office of Environmental Compliance
Emergency & Radiological Services Division
P.O. Box 4312
Baton Rouge, LA 70821-4312

SUBJECT: FINAL LOUISIANA FY 2021 INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM REVIEW DATE: MAY 18, 2021

DISTRIBUTION:

Chairman Hanson
Commissioner Baran
Commissioner Caputo
Commissioner Wright
MSpencer, OGC
BHarris, OGC
DLew, RI
WIrwin, Vermont
JLubinski, NMSS
TClark, NMSS
MMuessle, RIV
LHowell, RIV
JCook, RIV
SPoy, NMSS
RRagland, RI
RLocke, Massachusetts
DWhite, NMSS
RidsOgcMailCenter Resource
RidsSecyMailCenter Resource
RidsEdoMailCenter Resource
RidsNmssOd Resource
RidsRgn1MailCenter Resource
RidsRgn4MailCenter Resource
OAS Board

ADAMS Accession No.: ML21124A135

OFFICE	NMSS/TLIT	NMSS/MSST:PM	NMSS/MSST/RRS	NMSS/MSST:BC
NAME	KModes	RJohnson	ERaphael	BAnderson
DATE	05/03/2021	05/04/2021	05/04/2021	05/05/2021
OFFICE	NMSS/MSST:DD	NMSS/TechEd	NMSS/OD	OEDO/DEDCM
NAME	KWilliams	CGoode	RLewis	DRoberts
DATE	05/10/2021	05/11/2021	05/13/2021	05/18/2021

OFFICIAL RECORD COPY

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE LOUISIANA AGREEMENT STATE PROGRAM

January 11-14, 2021

FINAL REPORT

Enclosure

EXECUTIVE SUMMARY

The results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the Louisiana Agreement State Program (Louisiana) are discussed in this report. The review was conducted from January 11-14, 2021, by a team assembled from the U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Massachusetts. The review was conducted remotely due to travel restrictions associated with the COVID-19 Public Health Emergency. In-person inspector accompaniments were conducted in November and December of 2020.

The team found Louisiana's performance to be satisfactory for all seven indicators reviewed. These indicators are: 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; Legislation, Regulations, and Other Program Elements; and Sealed Source and Device Evaluation Program.

The team found that the Technical Quality of Incident and Allegation Activities performance indicator improved from a "satisfactory, but needs improvement" evaluation during the 2016 review to satisfactory because Louisiana implemented a new procedure and additional management oversight in this area. The team did not make any recommendations during the review and determined that the three recommendations from the 2016 review should be closed (i.e., staff retention; protection of sensitive information; and a new incident and allegation procedure) (See Section 2.0) based upon the enhanced processes, procedures, and performance.

Accordingly, the team recommended, and the Management Review Board (MRB) Chair agreed that the Louisiana Agreement State Program be found adequate to protect public health and safety and compatible with the NRC's program. The team recommended, and the MRB Chair agreed that the next IMPEP review take place in approximately 4 years with a periodic meeting in approximately 2 years.

1.0 INTRODUCTION

The Louisiana Agreement State Program (Louisiana) review was conducted from January 11-14, 2021, by a team assembled from the U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Massachusetts. Team members are identified in Appendix A. This review was conducted remotely due to travel restrictions imposed by the COVID-19 Public Health Emergency (PHE). In-Person inspector accompaniments were conducted in-person prior to the review. The review was conducted in accordance with the "Agreement State Program Policy Statement," published in the *Federal Register (FR)* on October 18, 2017 (82 FR 48535), and NRC Management Directive (MD) 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)," dated July 24, 2019. Preliminary results of the review, which covered the period of April 30, 2016 to January 14, 2021, were discussed with the Louisiana managers on January 26, 2021.

In preparation for the review, the team sent Louisiana a questionnaire addressing the common performance indicators and applicable non-common performance indicators. A copy of Louisiana's questionnaire response is available in the NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML21007A214.

Louisiana is administered by the Radiation Section (the Section) in the Emergency and Radiological Services Division (the Division) which is in the Office of Environmental Compliance which is all under the Louisiana Department of Environmental Quality (the Department). Organization charts for Louisiana are available in ADAMS (Accession Number ML21007A343).

A draft of this report was issued to Louisiana on March 10, 2021, for factual review and an opportunity to comment (ADAMS Accession Number ML21057A031). Louisiana responded to the draft report with minor comments via email dated March 23, 2021, from Karen Burgard, the Manager of the Office of Compliance, Emergency & Radiological Services Division, (ADAMS Accession Number ML21085A386). The Management Review Board (MRB) was convened on April 27, 2021, to discuss the team's findings and recommendations. This meeting was conducted remotely due to travel restrictions imposed by the COVID-19 PHE.

At the time of the review, Louisiana regulated 434 specific licenses authorizing possession and use of radioactive materials. The review focused on the radiation control program as it is carried out under Section 274b. (of the Atomic Energy Act of 1954, as amended) Agreement between the NRC and the State of Louisiana.

The team evaluated the information gathered against the established criteria for each common and the applicable non-common performance indicators and made a preliminary assessment of the Louisiana's performance.

2.0 PREVIOUS IMPEP REVIEW AND STATUS OF RECOMMENDATIONS

The previous IMPEP review concluded on April 29, 2016. The final report is available in ADAMS (Accession Number ML16211A049). The results of the review and the status of the associated recommendations are as follows:

Technical Staffing and Training: (Satisfactory)
Recommendation: The 2016 IMPEP review team recommended that Louisiana perform an evaluation to determine the causes for the low staff retention rate and implement corrective actions to mitigate the causes.

Status: Louisiana's assessment determined that staff retention rates were affected by, salary, telework opportunities, and workload. In an effort to address these issues, Louisiana provided pay raises in January 2018, July 2018, July 2019, and July 2020; introduced a flexible telework (1-2 days per week) environment, resulting in a better work-life balance; and promoted two Environmental Scientist-3 (ES-3) positions to ES-4 positions. Louisiana also took steps to decrease staff workload, such as reducing the number of internal metrics for licensing and inspection programs, replacing narrative reports with checklists, and replacing some peer reviews with manager reviews. Overall, the team found that Louisiana responded promptly, comprehensively, and appropriately to address this recommendation.

The team recommends that this recommendation be closed.

Status of Materials Inspection Program: (Satisfactory)
Recommendation: None

Technical Quality of Inspections: (Satisfactory)
Recommendation: None

Technical Quality of Licensing Actions: (Satisfactory)
Recommendation: The 2016 IMPEP review team recommended that Louisiana implement a procedure that addresses, at a minimum, the means for controlling access to documents that contain sensitive information, within the limits of Louisiana regulations.

Status: Immediately after the 2016 IMPEP review, Louisiana put in place a procedure limiting access to license files to only certain qualified licensing staff and management. During this review period, Louisiana worked with its records management staff to enhance measures for publicly sharing information and preventing the inadvertent release of sensitive information. With the goal of improving information access for members of the public, as allowed by law, Louisiana implemented additional controls to protect the release of sensitive information. To ensure consistent responses to public records requests, Louisiana issued an Internal Guidance Document for Processing Radiation Public Records Requests on February 13, 2020. The team reviewed this guidance document and found that it addresses the recommendation.

The team recommends that this recommendation be closed.

Technical Quality of Incident and Allegation Activities: (Satisfactory but Needs Improvement)
Recommendation: The 2016 IMPEP review team recommended that Louisiana develop and implement a comprehensive incident and allegation procedure, provide incident and allegations training to the staff, and ensure adequate management supervision in the incident and allegation program.

Status: Louisiana revised the "Standard Operating Procedure for Radiation Complaints, Incidents, and Allegations," on November 6, 2019. The procedure will be revised at least every 2 years and all staff will receive training following each revision. As part of updating the procedure, Louisiana created an online reporting form for documenting the receipt of a complaint, allegation, or incident. The online reporting forms are subsequently reviewed by senior staff and management. During the review, the team verified that the procedure was comprehensive, that Louisiana conducted staff training, and that Louisiana increased management oversight of the incident and allegation program.

The team is recommending that this recommendation be closed.

Legislation, Regulations and Other Program Elements: (Satisfactory)
Recommendation: None

Sealed Source and Device Evaluation Program: (Satisfactory)
Recommendation: None

Overall finding: Adequate to protect public health and safety and compatible with the NRC's program.

3.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review the NRC and Agreement State radiation control programs. 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.

3.1 Technical Staffing and Training

The ability to conduct effective licensing and inspection programs is largely dependent on having a sufficient number of experienced, knowledgeable, well-trained technical personnel. Under certain conditions, staff turnover could have an adverse effect on the implementation of these programs and could affect public health and safety.

Apparent trends in staffing must be assessed. Review of staffing also requires consideration and evaluation of the levels of training and qualification. The evaluation standard measures the overall quality of training available to, and taken by, materials program personnel.

a. Scope

The team used the guidance in State Agreements procedure (SA)103, "Reviewing the Common Performance Indicator: Technical Staffing and Training," and evaluated Louisiana's performance with respect to the following performance indicator objectives:

- A well-conceived and balanced staffing strategy has been implemented throughout the review period.
- Any vacancies, especially senior-level positions, are filled in a timely manner.
- There is a balance in staffing of the licensing and inspection programs.
- Management is committed to training and staff qualification.
- Agreement State training and qualification program is equivalent to NRC Inspection Manual Chapter (IMC) 1248, "Formal Qualifications Program for Federal and State Material and Environmental Management Programs."
- Qualification criteria for new technical staff are established and are followed, or qualification criteria will be established if new staff members are hired.
- Individuals performing materials licensing and inspection activities are adequately qualified and trained to perform their duties.
- License reviewers and inspectors are trained and qualified in a reasonable period of time.

b. Discussion

At the time of the review, Louisiana was comprised of 22 staff members (1 manager, 2 supervisors, 1 regulation review specialist; 4 fully qualified license reviewers; 13 inspectors, and 1 administrative assistant) which equals 20 full-time equivalents (FTEs) for the radiation control program. The 20 FTE is comprised of 16.2 technical FTE and 3.8 administrative FTE.

At the time of the review, there was one vacancy for an Environmental Scientist (inspector) position. This vacancy, which was created in July 2020, remains open because of a hiring freeze due to the COVID-19 PHE. Temporary Instruction 003 (TI-003), "Evaluating the Impacts of the COVID-19 Public Health Emergency, as part of the Integrated Materials Performance Evaluation Program (IMPEP)," states, in part, that vacancies at the technical staff or management level may not be filled in a timely manner due to the PHE.

During the review period, 12 staff left the program and 11 were hired. All staff hired during this review period have a minimum of a Bachelor of Science degree. Except for the current vacancy, all positions were filled within 75 days. In two cases, new staff were hired prior to the incumbent position becoming vacant. During this review period, Louisiana created two new Environmental Scientist-4 positions and promoted two staff into these positions.

Louisiana has a training and qualification program compatible with the NRC's IMC 1248. Louisiana's qualification process uses a combination of on-the-job training and NRC sponsored training courses. Staff must be qualified in a modality before they can perform tasks independently. Staff are considered fully qualified when they are qualified in all modalities. At the time of the review, Louisiana had four fully qualified license reviewers, five fully qualified inspectors, and seven staff members undergoing the

inspector qualification process. Fully qualified license reviewers and inspectors maintain at least 24 hours of refresher training every 24 months.

TI-003, states, in part, that license reviewers and inspectors may take longer to become qualified due to the inability to travel to attend training classes needed to complete qualification and inspections being delayed due to social distancing or other factors related to the COVID-19 PHE, provided the Program continued to maintain health, safety, and security. The team concluded that Louisiana continued to maintain health, safety, and security during the PHE. Louisiana's qualification procedure for an inspector indicates that it usually takes approximately 3 years, but due to the COVID-19 PHE this time frame has been extended. Louisiana has seven inspectors who are not fully qualified. Four of the seven inspectors were hired in calendar year 2019 and have been with Louisiana for less than 3 years. The remaining three inspectors have limited qualification and have been with Louisiana for approximately 4 years. These limited qualified inspectors would have been fully qualified by this time had it not been for the COVID-19 PHE. These limited qualified inspectors were accompanied as part of this IMPEP review (See Appendix B). Two of the three limited qualified inspectors completed all required training courses but need written approval for certain specific modalities. The other limited qualified inspector needs the Root Cause/Incident Investigation Workshop (G-205) training course and needs written approval on a couple of specific modalities. While the seven inspectors are not fully qualified, they are qualified to perform inspection activities in accordance with the Louisiana program. As such, the program can meet its objectives. The team noted that although the COVID-19 PHE has reduced the number of in-person training opportunities for its staff, Louisiana continues to work with the Organization of Agreement States and the NRC's Technical Training Center to take advantage of NRC online training classes.

c. Evaluation

The team determined that, during the review period, Louisiana met the performance indicator objectives listed in Section 3.1.a. Based on the criteria in MD 5.6, the team recommended that Louisiana's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

d. MRB Chair's Determination

The MRB Chair agreed with the team's recommendation and found Louisiana's performance with respect to this indicator satisfactory.

3.2 Status of Materials Inspection Program

Periodic inspections of licensed operations are essential to ensure that activities are being conducted in compliance with regulatory requirements and consistent with good safety and security practices. The frequency of inspections is specified in IMC 2800, "Materials Inspection Program," and is dependent on the amount and type of radioactive material, the type of operation licensed, and the results of previous inspections. There must be a capability for maintaining and retrieving statistical data on the status of the inspection program.

a. Scope

The team used the guidance in State Agreements procedure SA-101, "Reviewing the Common Performance Indicator: Status of the Materials Inspection Program," and evaluated Louisiana's performance with respect to the following performance indicator objectives:

- Initial inspections and inspections of Priority 1, 2, and 3 licensees are performed at the frequency prescribed in IMC 2800.
- Deviations from inspection schedules are normally coordinated between technical staff and management.
- There is a plan to perform any overdue inspections and reschedule any missed or deferred inspections, or a basis has been established for not performing any overdue inspections or rescheduling any missed or deferred inspections.
- Candidate licensees working under reciprocity are inspected in accordance with the criteria prescribed in IMC 2800, and other applicable guidance or compatible Agreement State Procedure.
- Inspection findings are communicated to licensees in a timely manner (30 calendar days, or 45 days for a team inspection), as specified in IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports."

b. Discussion

Louisiana performed 762 Priority 1, 2, 3, and initial inspections during the review period. Louisiana conducted 7 of 715 Priority 1, 2, or 3 inspections, and 2 of 47 initial inspections overdue. Louisiana indicated that seven of the nine overdue inspections (six of the seven overdue Priority 1, 2, and 3 inspections and one of two initial inspections) were due to the COVID-19 PHE. TI-003, states, in part, that for inspections that exceed the scheduling window as described in IMC 2800 with overdue dates falling inside the defined timeframe of the COVID-19 PHE, the number of overdue inspections should be noted in the report but should not be counted in the calculation of overdue inspections described in Appendix A of State Agreements procedure SA-101, provided that the Program continues to maintain health, safety, and security. The team concluded that Louisiana continued to maintain health, safety, and security during the PHE. Therefore, the team did not include seven of the nine overdue inspections when performing the calculation, resulting in less than half a percent of inspections performed overdue.

Louisiana's inspection frequencies are equal to, or more frequent than, the inspection frequencies for similar license types identified in IMC 2800.

The team reviewed the timeliness of inspection reports and noted that no inspection findings were communicated to the licensees greater than 30 days after the inspection exit. Inspectors provide the licensee with a "Field Interview Form" at the conclusion of the on-site inspection which ensures prompt communication of inspector findings.

Before an applicant can enter Louisiana under reciprocity, the applicant must first apply and receive an approval letter, which is valid for 1 year from the date of the approval letter. The team determined that Louisiana inspected more than 20 percent of reciprocity candidates in each year of the review period, consistent with Louisiana's procedural requirements. Louisiana conducted 26 percent (12 of 45) of candidate

reciprocity inspections in 2016, 29 percent (18 of 62) in 2017, 38 percent (24 of 63) in 2018, 23 percent (17 of 73) in 2019, and 25 percent (14 of 57) in 2020.

c. Evaluation

The team determined that, during the review period, Louisiana met the performance indicator objectives listed in Section 3.2.a. Based on the criteria in MD 5.6, the team recommended that Louisiana's performance with respect to the indicator, Status of Materials Inspection Program, be found satisfactory.

d. MRB Chair's Determination

The MRB Chair agreed with the team's recommendation and found Louisiana's performance with respect to this indicator satisfactory.

3.3 Technical Quality of Inspections

Inspections, both routine and reactive, provide reasonable assurance that licensee activities are carried out in a safe and secure manner. Accompaniments of inspectors performing inspections, and the critical evaluation of inspection records, are used to assess the technical quality of an Agreement State's inspection program.

a. Scope

The team used the guidance in State Agreements procedure SA-102, "Reviewing the Common Performance Indicator: Technical Quality of Inspections," and evaluated Louisiana's performance with respect to the following performance indicator objectives:

- Inspections of licensed activities focus on health, safety, and security.
- Inspection findings are well-founded and properly documented in reports.
- Management promptly reviews inspection results.
- Procedures are in place and used to help identify root causes and poor licensee performance.
- Inspections address previously identified open items and violations.
- Inspection findings lead to appropriate and prompt regulatory action.
- Supervisors, or senior staff as appropriate, conduct annual accompaniments of each inspector to assess performance and assure consistent application of inspection policies.
- For programs with separate licensing and inspection staffs, procedures are established and followed to provide feedback information to license reviewers.
- Inspection guides are compatible with NRC guidance.
- An adequate supply of calibrated survey instruments is available to support the inspection program.

b. Discussion

The team evaluated the inspection reports, associated field interview forms, enforcement documentation, and interviewed inspectors involved in 20 materials inspections conducted during the review period. The casework reviewed included inspections conducted by 15 of Louisiana's current and former inspectors and covered medical, industrial, commercial, academic, and research licenses.

Team members accompanied four inspectors on November 10, 2020, and December 8-10, 2020. The in-person inspector accompaniments are identified in Appendix B. No performance issues were noted during the inspector accompaniments. The inspectors were well-prepared, thorough, and assessed the impacts of licensed activities on health, safety, and security. The inspectors clearly communicated the inspection findings to the licensees at the exit meetings.

Typically, Louisiana conducts unannounced performance-based inspections. However, due to the impacts of the PHE, the inspectors announced their inspections. Record reviews and licensee interviews, when appropriate, are performed remotely. For inspection items that cannot be completed remotely, inspectors conduct on-site inspections. The team's assessment is that these changes have not degraded the quality of the inspection program.

The team found that inspection results were well documented with respect to health, safety, and security. The team also found that cited violations were supported by the State of Louisiana regulations, and that inspection findings led to appropriate and prompt regulatory actions. Louisiana's inspection documentation included the closure of previous violations and the documenting of open items.

Inspectors are accompanied by a member of management twice per year, which is more than the NRC's required once per year frequency. With one exception, supervisory accompaniments were performed annually for all qualified inspectors for each year of the review period. The team identified a senior technical staff member who was not accompanied once during this review period. The lack of an inspector accompaniment for this one individual was an oversight by Louisiana. However, this individual is a fully qualified inspector who trains new staff, performs inspector accompaniments, and leads team inspections.

The team determined that Louisiana has a sufficient supply of calibrated radiation survey instruments to support the inspection program. Records indicate that all survey instrumentation is calibrated on an annual basis.

c. Evaluation

The team determined that, during the review period, Louisiana met the performance indicator objectives listed in Section 3.3.a, except for:

- Supervisors, or senior staff as appropriate, conduct annual accompaniments of each inspector to assess performance and assure consistent application of inspection policies.

One inspector, who performs inspector accompaniments, was inadvertently not accompanied during this review period. Louisiana's management is aware of this oversight, will accompany this inspector during the next inspection and will ensure this inspector will be accompanied in the future.

Based on the IMPEP evaluation criteria in MD 5.6, the team recommended that Louisiana's performance with respect to the indicator, Technical Quality of Inspections, be found satisfactory.

d. MRB Chair's Determination

The MRB Chair agreed with the team's recommendation and found Louisiana's performance with respect to this indicator satisfactory.

3.4 Technical Quality of Licensing Actions

The quality, thoroughness, and timeliness of licensing actions can have a direct bearing on public health and safety, as well as security. An assessment of licensing procedures, implementation of those procedures, and documentation of communications and associated actions between the Louisiana licensing staff and regulated community is a significant indicator of the overall quality of the licensing program.

a. Scope

The team used the guidance in State Agreements procedure SA-104, "Reviewing the Common Performance Indicator: Technical Quality of Licensing Actions," and evaluated Louisiana's performance with respect to the following performance indicator objectives:

- Licensing action reviews are thorough, complete, consistent, and of acceptable technical quality with health, safety, and security issues properly addressed.
- Essential elements of license applications have been submitted and elements are consistent with current regulatory guidance (e.g., pre-licensing guidance, Title 10 *Code of Federal Regulation* (CFR) Part 37, financial assurance, etc.).
- License reviewers, if applicable, have the proper signature authority for the cases they review independently.
- License conditions are stated clearly and can be inspected.
- Deficiency letters clearly state regulatory positions and are used at the proper time.
- Reviews of renewal applications demonstrate a thorough analysis of a licensee's inspection and enforcement history.
- Applicable guidance documents are available to reviewers and are followed (e.g., NUREG-1556 series, pre-licensing guidance, regulatory guides, etc.).
- Licensing practices for risk significant radioactive materials are appropriately implemented including the physical protection of Category 1 and Category 2 quantities of radioactive material (10 CFR Part 37 equivalent).
- Documents containing sensitive security information are properly marked, handled, controlled, and secured.

b. Discussion

During the review period, Louisiana performed 1,633 radioactive materials licensing actions. The team evaluated 20 of those licensing actions: one new application, 2 amendments, 16 renewals, and 1 license termination. The team evaluated casework which included the following types of licenses: medical broad scope, medical diagnostic and therapy, commercial manufacturing and distribution, commercial distribution of industrial radiography, Positron Emission Tomography (PET) imaging, gas chromatographs/in-vitro studies, industrial radiography (one which included financial assurance), educational - instructional and research, commercial nuclear pharmacy, gauges, and well-logging (one of which included a change of ownership). The casework sample represented work from six current and former license reviewers.

In each of the licensing actions reviewed, the team found the casework completed in accordance with the current NUREG-1556 series guidance and followed sound health physics principles. The team confirmed that the pre-licensing guidance and risk significant radioactive material checklist were current and implemented in accordance with the applicable guidance. The team also confirmed that license reviewers assess the enforcement history as part of the renewal. The team verified that Louisiana's license renewal process evaluates the adequacy of financial assurance instruments and ensures that financial assurance instruments are updated every 3 years, as required.

The team noted that Louisiana uses a standard license condition on all material licenses that requires Louisiana licensees to notify the State when evacuating facilities that store radioactive material, in the event of an emergency.

c. Evaluation

During the previous IMPEP review in 2016, the team recommended Louisiana implement a procedure that addresses the means for controlling access to documents that contain sensitive information, within the limits of Louisiana regulations. Louisiana immediately put in place a procedure limiting access to license files to only certain qualified licensing staff and management. During this review period, Louisiana worked with its records management staff to enhance measures for publicly sharing information and preventing the inadvertent release of sensitive information. With the goal of improving information access for members of the public, as allowed by law, Louisiana implemented additional controls to protect the release of sensitive information. To ensure consistent responses to public records requests, Louisiana issued an Internal Guidance Document for Processing Radiation Public Records Requests on February 13, 2020. The team observed the proper marking on licenses, checklists, and other documents. Also, the team reviewed Louisiana's Internal Guidance Document for Processing Radiation Public Records Requests and confirmed, through interviews, that staff have been trained and are following this guidance. The team concluded that documents containing sensitive security information are properly marked, handled, controlled, and secured.

The team determined that, during the review period, Louisiana met the performance indicator objectives listed in Section 3.4.a. Based on the criteria in MD 5.6, the team recommended that Louisiana's performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory.

d. MRB Chair's Determination

The MRB Chair agreed with the team's recommendation and found Louisiana's performance with respect to this indicator satisfactory.

3.5 Technical Quality of Incident and Allegation Activities

The quality, thoroughness, and timeliness of response to incidents and allegations of safety concerns can have a direct bearing on public health, safety and security. An assessment of incident response and allegation investigation procedures, actual implementation of these procedures, internal and external coordination, timely incident reporting, and investigative and follow-up actions, are a significant indicator of the overall quality of the incident response and allegation programs.

a. Scope

The team used the guidance in State Agreements procedure SA-105, "Reviewing the Common Performance Indicator: Technical Quality of Incident and Allegation Activities," and evaluated Louisiana's performance with respect to the following performance indicator objectives:

- Incident response, and allegation procedures are in place and followed.
- Response actions are appropriate, well-coordinated, and timely.
- On-site responses are performed when incidents have potential health, safety, or security significance.
- Appropriate follow-up actions are taken to ensure prompt compliance by licensees.
- Follow-up inspections are scheduled and completed, as necessary.
- Notifications are made to the NRC Headquarters Operations Center for incidents requiring a 24-hour or immediate notification to the Agreement State or NRC.
- Incidents are reported to the Nuclear Material Events Database (NMED) and closed when all required information has been obtained.
- Allegations are investigated in a prompt, appropriate manner.
- Concerned individuals are notified within 30 days, of investigation conclusions.
- Concerned individuals' identities are protected, as allowed by law.

b. Discussion

During the review period, Louisiana reported 84 incidents to the NRC for inclusion in NMED. The team evaluated 11 of these incidents: 1 lost/stolen gauge, 1 stuck gauge shutter, 3 radiography source disconnects, 3 overexposures, 1 intentional radiography exposure, 1 receipt of contaminated scrap metal, and 1 mislabeled shipment (outside of package was labeled "empty" but contained radioactive sources which were labeled). Notifications to the NRC were within required time frames. Louisiana dispatched inspectors for on-site follow-up for all 11 cases reviewed. Follow-up inspections were timely, thorough, and resulted in necessary corrective actions, and appropriate enforcement.

The team also reviewed eight non-reportable events to determine if these events needed to be reported. In each case, the conditions did not meet the reporting criteria outlined in State Agreements procedure SA-300 "Reporting Material Events" or Louisiana's "Standard Operating Procedure for Radiation Complaints, Incidents, and Allegations."

During the review period, 38 allegations were received by Louisiana. The team evaluated 10 allegations, including 5 allegations referred to the State by the NRC. The team found that Louisiana took prompt and appropriate action in response to the concerns raised and commensurate with safety significance. Documentation for each allegation reviewed was complete, concise, and thorough. Concerned individuals were notified of the results of the investigation whenever possible.

The team noted that Louisiana's "Standard Operating Procedure for Radiation Complaints, Incidents, and Allegations" was comprehensive, staff were trained on the procedure and any updates, and management has maintained oversight of the incident and allegation program.

c. Evaluation

The team determined that, during the review period, Louisiana met the performance indicator objectives listed in Section 3.5.a. Based on the criteria in MD 5.6, the team recommended that Louisiana's performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, be found satisfactory.

d. MRB Chair's Determination

The MRB Chair agreed with the team's recommendation and found Louisiana's performance with respect to this indicator satisfactory.

4.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State programs: (1) Legislation, Regulations, and Other Program Elements; (2) Sealed Source and Device (SS&D) Evaluation Program; (3) Low-Level Radioactive Waste Disposal (LLRW) Program; and (4) Uranium Recovery Program. The NRC retains regulatory authority for a uranium recovery program; therefore, only the first three non-common performance indicators applied to this review.

4.1 Legislation, Regulations, and Other Program Elements

State statutes should authorize the State to establish a program for the regulation of agreement material and provide authority for the assumption of regulatory responsibility under the State's agreement with the NRC. The statutes must authorize the State to promulgate regulatory requirements necessary to provide reasonable assurance of adequate protection of public health, safety, and security. The State must be authorized through its legal authority to license, inspect, and enforce legally binding requirements, such as regulations and licenses. The NRC regulations that should be adopted by an Agreement State for purposes of compatibility or health and safety should be adopted in a time frame so that the effective date of the State requirement is not later than 3 years after the effective date of the NRC's final rule. Other program elements that have been designated as necessary for maintenance of an adequate and compatible program, should be adopted and implemented by an Agreement State within 6 months

following NRC designation. A Program Element Table indicating the Compatibility Categories for those program elements other than regulations can be found on the State Communications Portal (SCP) Web site at the following address: https://scp.nrc.gov/regtoolbox.html.

a. Scope

The team used the guidance in State Agreements procedure SA-107, "Reviewing the Non-Common Performance Indicator: Legislation, Regulations, and Other Program Elements," and evaluated Louisiana's performance with respect to the following performance indicator objectives. A complete list of regulation amendments can be found on the SCP Web site at the following address: https://scp.nrc.gov/regtoolbox.html.

- The Agreement State program does not create conflicts, duplications, gaps, or other conditions that jeopardize an orderly pattern in the regulation of radioactive materials under the Atomic Energy Act, as amended.
- Regulations adopted by the Agreement State for purposes of compatibility or health and safety were adopted no later than 3 years after the effective date of the NRC regulation.
- Other program elements, as defined in SA-200 that have been designated as necessary for maintenance of an adequate and compatible program, have been adopted and implemented within 6 months of NRC designation.
- The State statutes authorize the State to establish a program for the regulation of agreement material and provide authority for the assumption of regulatory responsibility under the agreement.
- The State is authorized through its legal authority to license, inspect, and enforce legally binding requirements such as regulations and licenses.
- Sunset requirements, if any, do not negatively impact the effectiveness of the State's regulations.

b. Discussion

Louisiana became an Agreement State on May 1, 1967. The Louisiana Agreement State Program's current effective statutory authority is contained in the Title 33, "Environmental Quality," Part XV, "Radiation Protection," of the Louisiana Administrative Code. The Department of Environmental Quality is designated as the State's radiation control agency. No legislation affecting the radiation control program was passed during the review period.

Louisiana's administrative rulemaking process takes approximately 6 months from drafting to finalizing a rule. The public, 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 by the Legislative Oversight Committee. The team noted that the State's rules and regulations are not subject to "sunset" laws.

During the review period, Louisiana submitted five proposed regulation amendments, six final regulation amendments, and eight legally binding license conditions to the NRC for

a compatibility review. One of these amendments was overdue for State adoption at the time of submission by 3 months and 18 days. At the time of this review, no amendments were overdue.

c. Evaluation

The team determined that during the review period Louisiana met the performance indicator objectives listed in Section 4.1.a, except for:

- Regulations adopted by the Agreement State for purposes of compatibility or health and safety were adopted no later than 3 years after the effective date of the NRC regulation.

One regulation amendment (RATS ID 2015-4: Miscellaneous Corrections, 10 CFR Parts 37 and 40) was overdue for State adoption at the time of submission by 3 months and 18 days. This amendment included two minor corrections (i.e., correcting a reference and replacing the word “or” with “of”). The proposed regulation amendment was submitted to the NRC on June 26, 2018, and was acceptable (i.e., no comments needed to be resolved). However, Louisiana published the final regulation amendment in the State register on December 20, 2018. Louisiana’s management is aware of this oversight that took place in 2018 and is cross training additional staff to perform regulation reviews.

Based on the IMPEP evaluation criteria in MD 5.6, the team recommended that Louisiana’s performance with respect to the indicator, Legislation, Regulations, and Other Program Elements, be found satisfactory.

d. MRB Chair’s Determination

The MRB Chair agreed with the team’s recommendation and found Louisiana’s performance with respect to this indicator satisfactory.

4.2 SS&D Evaluation Program

Adequate technical evaluations of SS&D designs are essential to ensure that SS&Ds will maintain their integrity and that the design is adequate to protect public health and safety. NUREG-1556, Volume 3, “Consolidated Guidance about Materials Licenses: Applications for Sealed Source and Device Evaluation and Registration,” provides information on conducting the SS&D reviews and establishes useful guidance for teams. In accordance with MD 5.6, three sub elements: Technical Staffing and Training, Technical Quality of the Product Evaluation Program, and Evaluation of Defects and Incidents Regarding SS&D’s, are evaluated to determine if the SS&D program is satisfactory. Agreement States with authority for SS&D evaluation programs who are not performing SS&D reviews are required to commit in writing to having an SS&D evaluation program in place before performing evaluations.

a. Scope

The team used the guidance in State Agreements procedure SA-108, "Reviewing the Non-Common Performance Indicator: Sealed Source and Device Evaluation Program," and evaluated Louisiana's performance with respect to the following performance indicator objectives:

Technical Staffing and Training

- A well-conceived and balanced staffing strategy has been implemented throughout the review period.
- Qualification criteria for new technical staff are established and are being followed or qualification criteria will be established if new staff members are hired.
- Any vacancies, especially senior-level positions, are filled in a timely manner.
- Management is committed to training and staff qualification.
- Individuals performing SS&D evaluation activities are adequately qualified and trained to perform their duties.
- SS&D reviewers are trained and qualified in a reasonable period of time.

Technical Quality of the Product Evaluation Program

- SS&D evaluations are adequate, accurate, complete, clear, specific, and consistent with the guidance in NUREG-1556, Volume 3.

Evaluation of Defects and Incidents

- SS&D incidents are reviewed to identify possible manufacturing defects and the root causes of these incidents.
- Incidents are evaluated to determine if other products may be affected by similar problems. Appropriate action and notifications to the NRC, Agreement States, and others, as appropriate, occur in a timely manner.

b. Discussion

Technical Staffing and Training

Louisiana has two staff fully qualified to perform SS&D evaluations and another staff member in the process of becoming fully qualified. All SS&D reviewers have a Bachelor of Science degree in engineering or physical/life sciences. Currently, there are no vacant SS&D reviewer positions. Louisiana has a training program equivalent to the NRC's IMC 1248, Appendix D, "Training Requirements and Qualification Journal for Byproduct Material Sealed Source and Device Reviewer." The team interviewed staff involved in the SS&D evaluation reviews and determined that they were familiar with the procedures used in the evaluation of sources and devices and had access to applicable reference documents.

Technical Quality of the Product Evaluation

Louisiana currently has 35 active SS&D registrations. This includes two device manufacturers and three source manufacturers. The team evaluated 13 SS&D actions processed during the review period, nine new applications and four amendments.

The team verified that SS&D reviewers had access to the guidance from the NRC's SS&D workshop; NUREG-1556, Volume 3, Revision 1; and applicable American National Standards Institute standards.

Evaluation of Defects and Incidents Regarding SS&Ds

There were no incidents related to SS&D defects involving devices registered by the State of Louisiana during the review period. Procedures are in place for SS&D-related incidents. Louisiana understands the importance of periodically reviewing NMED to capture generic issues that may arise related to SS&D-related incidents.

c. Evaluation

The team determined that, during the review period, Louisiana met the performance indicator objectives listed in Section 4.2.a. Based on the criteria in MD 5.6, the team recommended that Louisiana's performance with respect to the indicator, SS&D Evaluation Program, be found satisfactory.

d. MRB Chair's Determination

The MRB Chair agreed with the team's recommendation and found Louisiana's performance with respect to this indicator satisfactory.

4.3 LLRW Disposal Program

In 1981, the NRC amended its Policy Statement, "Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement," to allow a State to seek an amendment for the regulation of LLRW as a separate category. Those States with existing Agreements prior to 1981 were determined to have continued LLRW disposal authority without the need for an amendment. Although Louisiana has the authority to regulate a LLRW disposal facility, the NRC has not required States to have a program for licensing a disposal facility until such time as the State has been designated as a host State for a LLRW disposal facility. When an Agreement State has been notified or becomes aware of the need to regulate a LLRW disposal facility, it is expected to put in place a regulatory program that will meet the criteria for an adequate and compatible LLRW disposal program. There are no plans for a LLRW disposal facility in Louisiana. Accordingly, the team did not review this indicator.

5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, Louisiana's performance was found to be satisfactory for all performance indicators reviewed. The team did not make any new recommendations and determined that the three recommendations (i.e., staff retention;

protection of sensitive information; and a new incident and allegation procedure) from the 2016 IMPEP review should be closed.

Accordingly, the team recommended, and the MRB Chair agreed, that the Louisiana be found adequate to protect public health and safety and compatible with the NRC's program. Based on the results of the current IMPEP review, the team recommended and the MRB Chair agreed that the next full IMPEP review take place in approximately 4 years, with a periodic meeting in approximately 2 years.

LIST OF APPENDICES

Appendix A	IMPEP Review Team Members
Appendix B	Inspector Accompaniments

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	**Areas of Responsibility**
Kathy Modes, NMSS	Team Leader Technical Staffing and Training Legislation, Regulations, and Other Program Elements Inspector Accompaniment
Jacqueline Cook, Region IV	Technical Quality of Licensing Actions
Robert Locke, Commonwealth of Massachusetts	Technical Quality of Inspections
Randolph Ragland, Region I	Technical Quality of Incident and Allegation Activities Inspector Accompaniments
Stephen Poy, NMSS	Status of Materials Inspection Program Sealed Source and Device Evaluation Program
Robert Johnson, NMSS	Technical Staffing and Training (trainee of Ms. Modes) Status of Materials Inspection Program (trainee of Mr. Poy) Temporary Instruction-003

APPENDIX B

INSPECTOR ACCOMPANIMENTS

The following inspector accompaniments were performed prior to the on-site IMPEP review:

Accompaniment No.: 1	License No.: LA-0783-L02
License Type: *High Dose Rate Afterloader*	Priority: 2
Inspection Date: 11/10/2020	Inspector: PL

Accompaniment No.: 2	License No.: LA-9009-L01
License Type: *Fixed Gauge*	Priority: 5
Inspection Date: 12/08/2020	Inspector: JC

Accompaniment No.: 3	License No.: LA-2783-L01
License Type: *Well Logging*	Priority: 3
Inspection Date: 12/09/2020	Inspector: AM

Accompaniment No.: 4	License No.: LA-13683-L01
License Type: *Industrial Radiography*	Priority: 1
Inspection Date: 12/10/2020	Inspector: AJ