

May 16, 2013

James Craig, Director
Office of Health Protection
Mississippi State Department of Health
570 East Woodrow Wilson
P.O. Box 1700
Jackson, MS 39215-1700

Dear Mr. Craig:

The U.S. Nuclear Regulatory Commission (NRC) uses the Integrated Materials Performance Evaluation Program (IMPEP) in the evaluation of Agreement State programs. Enclosed for your review is the draft IMPEP report, which documents the results of the Agreement State review held in Jackson, Mississippi on April 15 - 19, 2013. I was the team leader for the review. The review team's preliminary findings were discussed with you and your staff on the last day of the review. The review team's proposed recommendations are that the Mississippi Agreement State Program be found adequate to protect public health and safety, and compatible with the NRC's program.

The NRC conducts periodic reviews of Agreement State programs to ensure that public health and safety are adequately protected from the potential hazards associated with the use of radioactive materials and that Agreement State programs are compatible with the NRC's program. The process, titled IMPEP, employs a team of the NRC and Agreement State staff to assess Agreement States' and the NRC Regional Offices' radioactive materials programs. All reviews use common criteria in the assessment and place primary emphasis on performance. Two additional areas applicable to your program have been identified as non-common performance indicators and are also addressed in the assessment. The final determination of adequacy and compatibility of each Agreement State program, based on the review team's report, is made by a Management Review Board (MRB) composed of the NRC managers and an Agreement State program manager who serves as a liaison to the MRB.

In accordance with procedures for implementation of IMPEP, we are providing you with a copy of the draft team report for your review and comment prior to submitting the report to the MRB. Please focus your review on the factual content of the report. Comments are requested within 4 weeks from your receipt of this letter. This schedule will permit the issuance of the final report in a timely manner that will be responsive to your needs.

The team will review the response, make any necessary changes to the report, and issue it to the MRB as a proposed final report. As we have agreed, the Mississippi MRB meeting is scheduled for June 25, 2013. The NRC will provide invitational travel for you or your designee to attend the MRB meeting at the NRC Headquarters in Rockville, Maryland. The NRC has video conferencing capability if it is more convenient for the State to participate through this

J. Craig

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medium. Please contact me if you desire to establish a video conference for the meeting. If you have any questions regarding the enclosed report, please contact me at 610-337-6942.

Thank you for your cooperation.

Sincerely,

/RA L. Dimmick for/

Michelle Beardsley, Health Physicist
Team Leader
Office of Federal and State Materials and
Environmental Management Programs

Enclosure:
Mississippi Draft IMPEP Report

cc w/ encl: B.J. Smith, Director
Division of Radiological Health

J. Craig

-2-

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cc w/ encl: B.J. Smith
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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM
REVIEW OF THE MISSISSIPPI AGREEMENT STATE PROGRAM

April 15-19, 2013

DRAFT REPORT

Enclosure

EXECUTIVE SUMMARY

This report presents the results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the Mississippi Agreement State Program. The review was conducted during the period of April 15-19, 2013, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of Minnesota.

Based on the results of this review, Mississippi's performance was found satisfactory for all performance indicators reviewed.

The review team did not make any recommendations and determined that the recommendations from the 2009 IMPEP review can be closed.

Accordingly, the review team recommends that the Mississippi Agreement State Program is adequate to protect public health and safety and compatible with the NRC's Program. The review team recommends that the next IMPEP review take place in approximately four years.

1.0 INTRODUCTION

This report presents the results of the review of the Mississippi Agreement State Program. The review was conducted during the period of April 15-19, 2013, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of Minnesota. Team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Rescission of Final General Statement of Policy," published in the *Federal Register* on October 16, 1997, and NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)," dated February 26, 2004. Preliminary results of the review, which covered the period of April 25, 2009 to April 15, 2013, were discussed with Mississippi managers on the last day of the review.

[A paragraph on the results of the Management Review Board (MRB) meeting will be included in the final report.]

The Mississippi Agreement State Program (Program) is administered by the Division of Radiological Health (Division). The Division is under the Department of Health (Department). Organization charts for the State, the Department, and the Division are included as Appendix B.

At the time of the review, the Program regulated 316 specific licenses authorizing byproduct, source, and certain special nuclear materials. The review 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 State of Mississippi.

In preparation for the review, a questionnaire addressing the common and applicable non-common performance indicators was sent to the Division Director on August 2, 2013. The Division provided its response to the questionnaire on March 13 and April 2, 2013, and a revised response was submitted on April 18, 2013. Copies of the questionnaire responses can be found in NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML13072A089.

The review team's general approach for conduct of this review consisted of (1) examination of the Division's response to the questionnaire, (2) review of applicable Mississippi statutes and regulations, (3) analysis of quantitative information from the Division's database, (4) technical review of selected regulatory actions, (5) field accompaniments of four inspectors, and (6) interviews with staff and managers. The review team evaluated the information gathered against the established criteria for each common and the applicable non-common performance indicator and made a preliminary assessment of the Mississippi Agreement State Program's performance.

Section 2.0 of this report covers the State's actions in response to recommendations made during previous reviews.

Results of the current review of the common performance indicators are presented in Section 3.0. Section 4.0 details the results of the review of the applicable non-common performance indicators, and Section 5.0 summarizes the review team's findings.

2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded on April 24, 2009, the review team made five recommendations regarding the Program's performance. The status of the recommendations is as follows:

1. The review team recommends that the State take additional actions, such as increasing salary and benefits, to stabilize staffing and ensure continued successful program implementation (Section 3.1 of the 2005 and 2009 IMPEP Reports).

Status: Following the previous review, the Division worked with the Mississippi State Personnel Board (MSPB) to address the issue of staff retention and reviewed salaries and benefits of other southern state radiological health programs. With that information the MSPB developed a new salary structure which was approved on January 12, 2012. This change increased salaries from 14 to 28 percent and developed a six-tier job classification that ranged from the HP Trainee level to HP Advanced level. The new job classification created a new career ladder for the Radiological Health Organization. The legislature attached years of State service to each increasing job classification level. The Division believes that this new structure should bring a competitive edge to the Mississippi program and help to attract and retain staff. This recommendation is closed.

2. The review team recommends that the State update its existing procedures and develop new procedures, if necessary, to memorialize the policies and practices of the Agreement State Program and to serve as a knowledge management tool (Section 3.1).

Status: The Division developed and implemented new procedures and revised others which are used in the daily operation of their program. The Division stated that they will develop additional procedures as needed to both document their program and to be used as a knowledge management tool. This recommendation is closed.

3. The review team recommends that the State implement a reliable and comprehensive licensing and inspection database that serves as an effective planning, tracking and data management tool (Section 3.1).

Status: At the time of the previous review, the Division maintained records in paper format. Following that review, the Division developed an Access database to track licensing and inspection status, including candidates for reciprocity inspections. In 2012 the Division was notified by the Department that Access would no longer be supported. The Division moved its database entries into an Excel spreadsheet for tracking. This is a temporary tracking method until the NRC's Licensee Tracking System (LTS) is brought on board in the near future. The Division believes that electronic tracking is an effective management tool. This recommendation is closed.

4. The review team recommends that the State implement a process to ensure that violations are adequately documented, licensee corrective actions are reviewed for adequacy and documented and sufficient followup of violations is performed and documented consistent with the safety or security significance. (Section 3.3)

Status: The Division has included a section concerning findings in its checklists for each type of inspection. This section includes documentation of each violation cited as part of the

current inspection, and documentation of the status of each violation cited as part of the previous inspection. Licensees are required to provide a written response concerning corrective actions for each cited violation. Inspection accompaniments confirmed that Division staff verified that appropriate corrective actions had been taken for previous violations and that the violations had not recurred. Inspection staff regularly meets to discuss potential violations found during inspections to improve staff consistency. This recommendation is closed.

5. The review team recommends that the State develop and implement a procedure for the control of sensitive or security-related information that provides guidance to identify, mark, handle, and protect such information (Section 3.3).

Status: The review team found that the Division has developed and implemented a procedure for the control of sensitive and security-related information. Documents containing such information are protected, handled, marked and secured as required by this procedure. This recommendation is closed.

3.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review NRC regional and Agreement State radioactive materials 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

Considerations central to the evaluation of this indicator include the Division's staffing level and staff turnover, as well as the technical qualifications and training histories of the staff. To evaluate these issues, the review team examined the Division's questionnaire response relative to this indicator, interviewed managers and staff, reviewed job descriptions and training records, and considered workload backlogs.

The Division, which administers the Program, is headed by the Division Director and is composed of three branches: the Radioactive Materials Branch (the Branch), the X-Ray Branch, and the Environmental Branch. Each branch has a director that reports to the Division Director.

The Branch is responsible for the day-to-day operations of the Program, such as licensing, inspecting, and responding to radioactive materials incidents. The Branch is authorized for five positions to perform its duties: the Branch Manager and four Health Physicist positions. The Branch is currently fully staffed. During the review period, seven staff positions turned over. Staff left for various reasons, but none apparently due to salary. One staff returned. These positions were filled by the Division within 2 to 3 months.

The Division has a documented training plan for technical staff that is consistent with the requirements in the NRC/Organization of Agreement States Training Working Group Report and NRC's Inspection Manual Chapter (IMC) 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area." Staff members are assigned increasingly complex duties as they progress through the qualification process. The Branch Director is fully qualified, with the remainder of the staff in various levels of the qualification process. The

review team concluded that the Division's training program is adequate to carry out its regulatory duties and noted that Mississippi management supports the training program.

Previously the Division had a career ladder consisting of three steps; Health Physicist Trainee, Health Physicist, and Senior Health Physicist. Salaries were low compared to surrounding States, and it was difficult to keep staff after they were hired and trained. The Division worked with the MSPB to address the issue of staff retention by reviewing salaries and benefits of other nearby radiation control programs. With that information the MSPB developed a new expanded career ladder which was approved on January 12, 2012. This change increased salaries from 14 to 28 percent and developed a six-tier job classification that ranged from the HP Trainee level to HP Advanced level. The legislature attached years of State service to each increasing job classification level. The new structure appears to be viable within the State and is consistent with neighboring State programs. It is expected that this should bring a competitive edge to the Mississippi program and help to retain staff.

Based on the IMPEP evaluation criteria, the review team recommends that Mississippi's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

3.2 Status of Materials Inspection Program

The review team focused on five factors while reviewing this indicator: inspection frequency, overdue inspections, initial inspections of new licenses, timely dispatch of inspection findings to licensees, and performance of reciprocity inspections. The review team's evaluation was based on the Division's questionnaire response relative to this indicator, data gathered from the Division's database, examination of completed inspection casework, and interviews with management and staff.

The review team verified that the Program's inspection frequencies for all types of radioactive material licenses are as frequent or in some cases (i.e. Type A broad scope, medical institution-no written directive required and well logging) more frequent as similar license types listed in IMC 2800, "Materials Inspection Program."

The Division conducted approximately 250 Priority 1, 2 and 3 inspections during the review period. Sixteen of these inspections were conducted overdue by more than 25 percent. In addition, the Division performed ten initial inspections during the review period, one of which was conducted two months overdue. At the time of the review three inspections were overdue. Six of the overdue inspections (including those currently overdue, the initial overdue and two of the overdue inspections during the review period) were of licensees that have a Mississippi license, but the main offices for the licensees are located in another State and the licensees do not always operate within Mississippi each year. The team discussed with the Division that even though the licensee does not always operate in Mississippi, the Division is still required to perform an inspection at the frequency required for that type of licensee. The Division acknowledged the issue and started to perform inspections (by telephone, email) of these licensees while the team was onsite. The remaining inspections were overdue because of the staff turnover experienced by the Division during the review period. Overall, the review team calculated that the Division performed 7.3 percent of its inspections overdue during the review period.

The review team evaluated the Division's timeliness in providing inspection findings to licensees. A sampling of 22 inspection reports indicated that two of the inspection findings were communicated to the licensees beyond the Division's goal of 30 days after the inspection (i.e. 32 and 39 days).

During the review period, the Division granted 125 reciprocity permits, and considered all to be candidate licensees. The review team determined that the Division met the NRC's criteria of inspecting 20 percent of candidate licensees operating under reciprocity in each of the four years covered by the review period.

Based on the IMPEP evaluation criteria, the review team recommends that Mississippi's performance with respect to the indicator, Status of Materials Inspection Program, be found satisfactory.

3.3 Technical Quality of Inspections

The review team evaluated the inspection reports, enforcement documentation, inspection field notes, and interviewed inspectors for 21 radioactive materials inspections conducted during the review period. The casework reviewed included inspections conducted by nine Division inspectors and covered inspections of various license types, including: medical therapy institutions (high dose rate remote afterloader, gamma stereotactic radiosurgery, unsealed radiopharmaceutical therapy, and permanent implant brachytherapy), industrial radiography, self-shielded irradiators, well logging, diagnostic and mobile nuclear medicine, research and development, production and distribution of radiopharmaceutical materials, and portable gauges. Inspection casework reviewed included routine inspections, initial inspections, reciprocity inspections, and inspections of licensees' implementation of Increased Security Controls for Large Quantities of Radioactive Materials (Increased Controls). Appendix C lists the inspection casework files reviewed, with case-specific comments, as well as the results of the inspector accompaniments.

Based on the evaluation of casework, the review team noted that inspections covered all aspects of the licensees' radiation safety programs. The review team found that inspection reports were thorough, complete, consistent, and of high quality, with sufficient documentation to ensure that a licensee's performance with respect to health and safety was acceptable. The documentation supported violations, recommendations made to licensees, unresolved safety issues, the effectiveness of corrective actions taken to resolve previous violations and discussions held with licensees during exit interviews.

The inspection procedures utilized by the Program are consistent with the inspection guidance outlined in IMC 2800. An inspection report is completed by the inspector; the report is then reviewed and signed by the Division Director. Supervisory accompaniments were conducted at least annually for all inspectors.

The review team determined that the inspection findings were appropriate and prompt regulatory actions were taken, as necessary. Inspection findings were clearly stated and documented in the reports and sent to the licensees with the appropriate letter detailing the results of the inspection. The Division issues to the licensee either a letter indicating a clear

inspection or a Notice of Inspection Findings (NOIF), which details the results of the inspection. When the Division issues an NOIF, the licensee is required to provide a written corrective action plan based on the violations cited, within ten days of receipt of the letter. All findings are reviewed by the Division Director.

The review team noted that the Division has an adequate supply of survey instruments to support their inspection program. Appropriate survey instrumentation, such as Geiger-Mueller meters, scintillation detectors, ion chambers, micro-R meters, and neutron detectors, were observed to be calibrated and available. The Division also has portable multi-channel analyzers available at the Jackson office. Instruments are calibrated at least annually or as needed with National Institute of Standards and Technology traceable sources by a commercial service in Mississippi or by the manufacturers. The Division uses a spreadsheet to track each instrument, its current location, and its next calibration date. Division personnel ensure that they use calibrated instrumentation and perform checks to ensure that the instruments are operating properly.

An IMPEP team member conducted accompaniments of four Division inspectors from February 11 through 14, 2013. The inspectors were accompanied during health and safety and security inspections of diagnostic and therapeutic nuclear medicine, high dose rate remote afterloader radiation therapy, well logging, and industrial radiography. The accompaniments are identified in Appendix C. During the accompaniments, the inspectors demonstrated appropriate inspection techniques and knowledge of the regulations, and conducted compliance and performance-based inspections. The inspectors were trained and well-prepared for the inspections; and were thorough in their audits of the licensees' radiation safety programs. The inspectors conducted interviews with appropriate personnel, observed licensed operations, conducted confirmatory measurements, and utilized good health physics practices. The inspections were adequate to assess radiological health and safety and security at the licensed facilities.

Based on the IMPEP evaluation criteria, the review team recommends that Mississippi's performance with respect to the indicator, Technical Quality of Inspections, be found satisfactory.

3.4 Technical Quality of Licensing Actions

The review team examined completed licensing casework and interviewed license reviewers for 22 specific licensing actions. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequacy of facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of license conditions, and overall technical quality. The casework was also reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, supporting documentation, consideration of enforcement history, pre-licensing visits, peer/supervisory review, and proper signatures.

The licensing casework was selected to provide a representative sample of licensing actions completed during the review period. Licensing actions selected for evaluation included 3 new licenses, 3 renewals, 2 termination actions, and 14 amendments. Files reviewed included a cross-section of license types, including academic broadscope, medical diagnostic and therapy

(mobile nuclear medicine, high dose rate remote afterloader, unsealed therapy, permanent implant brachytherapy, and gamma knife), industrial radiography, nuclear pharmacy, cyclotron, gauges, and underwater and self-shielded irradiators. The casework sample represented work from ten license reviewers. A list of the licensing casework evaluated, with a case-specific comment, is provided in Appendix D.

Based on the casework evaluated, the review team concluded that the licensing actions were of high quality and consistent with the Division's licensing procedures and/or NUREG-1556 guidance documents, the State's regulations, and good health physics practices. License tie-down conditions were stated clearly and were supported by information contained in the file. Deficiency letters clearly stated regulatory positions, were used at the proper time, and identified substantive deficiencies in the licensees' documents. Terminated licensing actions were well documented showing appropriate transfer and survey records. The review team attributed the consistent use of templates and quality assurance reviews to the overall quality noted in the casework reviews. The review team identified one instance where a license requiring financial assurance was issued prior to having the financial assurance instrument in place. The Division had identified this prior to the IMPEP review and was in the process of securing the correct financial instrument.

All staff perform a technical review on licensing actions. The Division Director performs a technical and supervisory review and signs all licensing actions before issuance to the licensee. New licenses are issued for a one year period at which time a simple renewal extends the expiration date of the license from one to four years. All licenses undergo a full renewal review every five years under a timely renewal system.

The Division performs pre-licensing checks of all new applicants. The Division's pre-licensing review methods incorporate the essential elements of the NRC's pre-licensing guidance to verify that the applicant will use requested radioactive materials as intended. All new licensees receive a pre-licensing site visit which includes an evaluation of the applicant's radiation safety and security programs prior to receipt of the initial license.

The review team examined the Division's licensing practices regarding the Increased Controls and Fingerprinting Orders. The review team noted that the State uses legally binding license conditions that meet the criteria for implementing the Increased Controls Orders, including fingerprinting, as appropriate. The review team analyzed the Division's methodology for identifying those licenses and found the rationale was thorough and accurate. The review team confirmed that license reviewers evaluated new license applications and license amendments using the same criteria. The Division requires full implementation of the Increased Controls prior to issuance of a new license or license amendment that meets the established criteria.

The review team examined the Division's implementation of its procedure for the control of sensitive information. This procedure addresses the identification, marking, control, handling, preparation, transportation, transmission, and destruction of documents that contain sensitive information related to the Increased Controls. The review team noted that the Division controls access to all of their electronic licensing and inspection files via password protection. Files that contained sensitive information were further secured in locked file cabinets.

Based on the IMPEP evaluation criteria, the review team recommends that Mississippi's

performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory.

3.5 Technical Quality of Incident and Allegation Activities

In evaluating the effectiveness of the Division's actions in responding to incidents and allegations, the review team examined the Division's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Mississippi in the Nuclear Material Events Database (NMED) against those contained in the Division's files, and evaluated the casework for 25 radioactive materials incidents. A list of the incident casework examined, with case-specific comments, may be found in Appendix E. The review team also evaluated the Division's response to three allegations involving radioactive materials, including one allegation referred to the State by the NRC during the review period.

The incidents selected for review included the following categories: missing/lost radioactive material, medical event, damaged gauge, stolen gauge, vehicle accident, gauge malfunction, delivery error, dose preparation error, source abandonment, source recovery, dislodged source, and stuck source. The review team determined that the Division's response to incidents was complete and comprehensive. Initial responses were prompt and well-coordinated, and the level of effort was commensurate with the health and safety significance. The Division dispatched inspectors for on-site investigations in nine of the cases reviewed and took suitable enforcement and follow-up actions. If the incident met the reportability thresholds, as established in the Office of Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-300 "Reporting Material Events," the State notified the NRC Headquarters Operations Center and entered the information into NMED, in a prompt manner, except in those cases discussed below.

The review team identified 24 radioactive material incidents in NMED for Mississippi during the review period, of which 22 required reporting. Two non-reportable incidents in NMED for Mississippi were reviewed for reportability and found to be correctly categorized as non-reportable by the Division. For the incidents reviewed, the Division's responses to the incidents were found to be complete and comprehensive. Initial responses were prompt and well-coordinated, and the level of effort was commensurate with the potential health and safety significance of the event. Inspectors were dispatched for onsite investigations when appropriate. Enforcement and/or other regulatory actions were taken as appropriate. The actions taken in response to incidents were documented and filed, and the data were submitted to the NRC's contractor responsible for maintaining NMED for inclusion in the database.

For the NMED incidents reviewed, 11 were reported outside the time requirements identified in Appendix A of SA-300, "Reporting Material Events". The timeliness of reporting was discussed with the Division management. The late reporting of a medical event was found to be the result of a decision by the Division to wait for the hospital to complete their internal review before performing an inspection or reporting the event to the NRC. The other late reports were the result of a misunderstanding by the Division related to the applicability of 10 CFR 30.50(b)(2) to radiography equipment and gauges, when the staff had made the determination that the issues were of minor health and safety significance. The impact of late reporting including the medical event was reviewed and no adverse outcomes were identified. The team discussed the reporting requirements with Division management who committed to reporting events by the

timelines required in SA-300

In evaluating the effectiveness of the Division's response to allegations, the review team evaluated the completed casework for three allegations, including one that the NRC referred to the Program during the review period. The review team concluded that the Division took prompt and appropriate actions in response to concerns raised. The review team noted that the Division documented the investigations of concerns and retained all necessary documentation to appropriately close the allegations. The Division notified the concerned individuals of the conclusion of their investigations. The review team determined that the Division adequately protected the identity of concerned individuals.

Based on the IMPEP evaluation criteria, the review team recommends that Mississippi's performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, be found satisfactory.

4.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State Programs: (1) Compatibility Requirements, (2) Sealed Source and Device Evaluation Program, (3) Low-Level Radioactive Waste Disposal Program, and (4) Uranium Recovery Program. The NRC's Agreement with Mississippi does not relinquish regulatory authority for a low level radioactive waste disposal or uranium recovery program; therefore, only the first two non-common performance indicators applied to this review.

4.1 Compatibility Requirements

4.1.1 Legislation

Mississippi became an Agreement State on July 1, 1962. The Mississippi Radiation Protection Law of 1976 designates the Department as the radiation control agency for the State. This act gives the Department specific powers and duties, including the authority to promulgate regulations, issue licenses, perform inspections, and collect fees. The current effective statutory authority is contained in the Mississippi State Department of Health Title 15, Part 21 Division of Radiological Health regulations.

The review team noted that no legislation affecting the radiation control program was passed during the review period.

4.1.2 Program Elements Required for Compatibility

Mississippi's regulations pertaining to radiation control apply to all ionizing radiation, whether emitted from radionuclides or devices. Mississippi requires a license for possession and use of all radioactive materials.

The review team examined the State's regulatory process and found that the process takes 6 to 12 months. The Division is responsible for drafting and revising the State's regulations pertaining to radiation control. After preparation of a package of draft regulations, the Division obtains approval from the Radiation Advisory Council and then the Board of Health. Draft

regulation packages are classified as “intent to adopt” and are mailed to registered interested parties, such as licensees and NRC, with an opportunity for comments. After addressing any comments, the Division submits the regulations to the Board of Health for final approval. Once approved, the final regulations are sent to the Secretary of State for adoption. Mississippi’s rules and regulations are not subject to sunset laws. The Division also has the authority to issue alternate legally binding requirements, such as license conditions, in lieu of regulations. The review team evaluated Mississippi’s response to the questionnaire relative to this indicator, reviewed the status of regulations required to be adopted by the State under the Commission’s adequacy and compatibility policy, and verified the adoption of regulations with data obtained from the State Regulation Status Sheet that FSME maintains.

During the review period, Mississippi submitted 13 final regulation amendments and 14 proposed regulation amendments to the NRC for a compatibility review. Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally-binding requirements no later than 3 years after they become effective. Three amendments were submitted overdue during the review period. The NRC’s compatibility review resulted in 15 comments which will need to be addressed by the State in upcoming rulemaking activities. The following three amendments were submitted overdue during the review period:

- “Compatibility with IAEA Transportation Safety Standards and Other Transportation Safety Amendments”, 10 CFR Part 71 (69 FR 57327), that was due for Agreement State adoption on October 1, 2007.
- “Medical Use of Byproduct Material – Recognition of Specialty Boards,” 10 CFR Part 35 amendment (70 FR 16336, 71 FR 1926) that was due for Agreement State adoption on April 29, 2008.
- “Requirements for Expanded Definition of Byproduct Material”, 10 CFR Parts 20, 30, 31, 32, 33, 35, 61 and 150 amendments (72 FR 55864), that was due for Agreement State adoption on November 30, 2010.

At the time of the review, there were no overdue amendments. A complete list of upcoming regulation amendments that will need to be addressed can be found on the NRC website at the following address: http://nrc-stp.ornl.gov/rss_regamendments.html.

Based on the IMPEP evaluation criteria, the review team recommends that Mississippi’s performance with respect to the indicator, Compatibility Requirements, be found satisfactory.

4.2 Sealed Source and Device Evaluation Program

Since becoming an Agreement State in 1963, Mississippi has not performed any sealed source and device evaluations; therefore, the review team did not review this indicator.

4.3 Low-level Radioactive Waste 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. Although the Mississippi Agreement State Program has LLRW disposal authority, the NRC has not required States to have a Program for licensing a LLRW 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, they are expected to put in place a regulatory Program which will meet the criteria for an adequate and compatible LLRW disposal Program. There are no plans for a LLRW disposal facility in Mississippi. Accordingly, the review team did not review this indicator.

5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, Mississippi's performance was found satisfactory for all performance indicators reviewed. The review team did not make any recommendations, and determined that all recommendations from the 2009 IMPEP review can be closed.

Accordingly, the review team recommends that the Mississippi Agreement State Program 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 review team recommends that the next full IMPEP review take place in approximately four years.

LIST OF APPENDICES

Appendix A	IMPEP Review Team Members
Appendix B	Mississippi Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	Area of Responsibility
Michelle Beardsley, FSME	Team Leader Status of Materials Inspection Program Compatibility Requirements
Randy Erickson, Region IV	Technical Staffing and Training Technical Quality of Incident and Allegation Activities
Geoffrey Warren, Region III	Technical Quality of Inspections Inspection Accompaniments
Brandon Juran, Minnesota	Technical Quality of Licensing Actions
Martha Poston-Brown, Region IV supported the review of Technical Quality of Incidents and Allegations.	

APPENDIX B

Mississippi ORGANIZATION CHARTS

ADAMS ACCESSION NO.: ML13072A100

APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS

File No.: 1

Licensee: Anderson Regional Medical Center
Inspection Type: Routine/Reactive, Announced
Inspection Date: 9/19/12

License No.: MS-267-01
Priority: 3
Inspectors: JDM, LR

File No.: 2

Licensee: Delta Regional Medical Center
Inspection Type: Routine, Announced
Inspection Date: 5/19/10

License No.: MS-010-01
Priority: 3
Inspector: DB

File No.: 3

Licensee: River Oaks Hospital
Inspection Type: Routine, Announced
Inspection Date: 2/14/13

License No.: MS-470-01
Priority: 3
Inspector: BG

File No.: 4

Licensee: Cased Hole Well Services
Inspection Type: Initial, Unannounced
Inspection Date: 2/13/13

License No.: MS-1061-01
Priority: 3
Inspector: LR

File No.: 5

Licensee: Warrior Energy Services Corporation
Inspection Type: Routine, Announced
Inspection Date: 3/15/12

License No.: MS-859-01
Priority: 3
Inspector: JRM

File No.: 6

Licensee: Singing River Hospital
Inspection Type: Routine, Announced
Inspection Date: 1/12/11

License No.: MS-143-01
Priority: 3
Inspector: JDM

File No.: 7

Licensee: Triad Isotopes, Inc.
Inspection Type: Routine, Announced
Inspection Dates: 2/21/11 through 1/12/12

License No.: MS-794-01
Priority: 2
Inspector: JDM

Comment: Inspection Report was issued 32 days after inspection completion

File No.: 8

Licensee: Jackson HMA
Inspection Type: Routine, Unannounced
Inspection Date: 2/14/13

License No.: MS-722-01
Priority: 3
Inspector: BF

File No.: 9

Licensee: South Central Regional Medical Center
Inspection Type: Routine, Announced
Inspection Date: 4/13/10

License No.: MS-277-01
Priority: 3
Inspector: BF

File No.: 10

Licensee: University of Mississippi Health & Safety Department
Inspection Type: Routine, Announced
Inspection Date: 4/13/12

License No.: MS-EBL-01
Priority: 2
Inspector: JRM

File No.: 11

Licensee: Endocrinology Consultants, PLLC
Inspection Type: Routine, Announced
Inspection Date: 8/30/11

License No.: MS-925-01
Priority: 3
Inspector: LF

File No.: 12

Licensee: Mississippi Tank Company
Inspection Type: Routine/Special, Announced
Inspection Date: 3/12/12

License No.: MS-064-01
Priority: 2
Inspectors: JRM, LR

File No.: 13

Licensee: North Sunflower Medical Center
Inspection Type: Initial, Announced
Inspection Date: 5/24/11

License No.: MS-1049-01
Priority: 3
Inspector: LF

File No.: 14

Licensee: Northwest Regional Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 11/5/09

License No.: MS-286-02
Priority: 3
Inspector: BS

Comment: Inspection was conducted four months overdue

File No.: 15

Licensee: Eustis Engineering Company Inc.
Inspection Type: Routine, Unannounced
Inspection Date: 4/4/13

License No.: MS-1024-01
Priority: 5
Inspector: JD

File No.: 16

Licensee: Central Mississippi Medical Center
Inspection Type: Routine, Announced
Inspection Date: 11/29/12

License No.: MS-722-05
Priority: 2
Inspector: JDM

File No.: 17

Licensee: North Mississippi Medical Center Cancer Center
Inspection Type: Routine, Unannounced
Inspection Date: 11/20/12

License No.: MS-378-03
Priority: 2
Inspector: JDM

File No.: 18

Licensee: Coastal Wireline Services, Inc.
Inspection Type: Reciprocity, Unannounced
Inspection Date: 7/19/12

License No.: N/A
Priority: N/A
Inspector: LR

File No.: 19

Licensee: TUV Rheinland Industrial Services, Inc.
Inspection Type: Reciprocity, Unannounced
Inspection Date: 2/12/13

License No.: N/A
Priority: N/A
Inspector: LR

File No.: 20

Licensee: University of Mississippi Medical Center
Inspection Type: Special, Announced
Inspection Date: 5/25/11 through 6/2/11

License No.: MS-683-01
Priority: 5
Inspector: JDM

Comment: Inspection Report was issued 39 days after inspection completion

File No.: 21

Licensee: Shaw Pipeline Services
Inspection Type: Telephone, Unannounced
Inspection Date: 4/16/13

License No.: MS-1043-01
Priority: 1
Inspector: LR

Comment: Inspection was conducted 27 months overdue.

INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1

Licensee: University of Mississippi Medical Center
Inspection Type: Routine/Partial, Announced
Inspection Date: 2/11/13

License No.: MS-MBL-01
Priority: 2
Inspector: JDM

Accompaniment No.: 2

Licensee: TUV Rheinland Industrial Services, Inc.
Inspection Type: Reciprocity, Unannounced
Inspection Date: 2/12/13

License No.: N/A
Priority: N/A
Inspector: LR

Accompaniment No.: 3

Licensee: Cased Hole Well Services
Inspection Type: Initial, Unannounced
Inspection Date: 2/13/13

License No.: MS-1061-01
Priority: 3
Inspector: LR

Accompaniment No.: 4
Licensee: Jackson HMA
Inspection Type: Routine, Announced
Inspection Date: 2/14/13

License No.: MS-722-01
Priority: 3
Inspector: BF

Accompaniment No.: 5
Licensee: River Oaks Hospital
Inspection Type: Routine, Announced
Inspection Date: 2/14/13

License No.: MS-470-01
Priority: 3
Inspector: BG

APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1

Licensee: Pioneer Wireline Service

Type of Action: Termination

Date Issued: 2/20/13

License No.: MS-1054-01

Amendment No.: 4

License Reviewer: LR

File No.: 2

Licensee: Bolivar Medical Center

Type of Action: Renewal

Date Issued: 11/15/12

License No: MS-522-01

Amendment No.: 36

License Reviewer: BG

File No.: 3

Licensee: Cardinal Health

Type of Action: Termination

Date Issued: 4/16/12

License No.: MS-924-01

Amendment No.: 29

License Reviewer: JDM

File No.: 4

Licensee: Gateway America

Type of Action: New

Date Issued: 11/20/12

License No.: MS-1063-01

Amendment No.: N/A

License Reviewer: JDM

Comment: License issued prior to having financial assurance in place.

File No.: 5

Licensee: South Central Regional Medical Center

Type of Action: Renewal

Date Issued: 9/1/10

License No: MS-277-01

Amendment No.: 60

License Reviewer: BF

File No.: 6

Licensee: URS Corporation

Type of Action: Amendment

Date Issued: 9/25/12

License No.: MS-1030-01

Amendment No.: 3

License Reviewer: JD

File No.: 7

Licensee: Triad Isotopes

Type of Action: Amendment

Date Issued: 3/4/13

License No.: MS-794-01

Amendment No.: 42

License Reviewer: BF

File No.: 8

Licensee: Cased Hole Well Services

Type of Action: New

Date Issued: 4/11/12

License No: MS-1061-01

Amendment No.: N/A

License Reviewer: JRM

File No.: 9

Licensee: TUV Rheinland

Type of Action: New

Date Issued: 3/22/13

License No.: MS-1067-01

Amendment No.: N/A

License Reviewer: JRM

File No.: 10

Licensee: Central Mississippi Medical Center

Type of Action: Amendment

Date Issued: 10/25/12

License No.: MS-722-05

Amendment No.: 3

License Reviewer: JDM

File No.: 11

Licensee: University of Southern Mississippi – Department of Biology

Type of Action: Amendment

Date Issued: 6/15/11

License No: MS-233-01

Amendment No.: 29

License Reviewer: LJ

File No.: 12

Licensee: Team Industrial

Type of Action: Amendment

Date Issued: 9/7/10

License No.: MS-515-01

Amendment No.: 37

License Reviewer: DB

File No.: 13

Licensee: American Diagnostic Technologies, LLC

Type of Action: Amendment

Date Issued: 2/1/11

License No.: MS-927-01

Amendment No.: 36

License Reviewer: LF

File No.: 14

Licensee: Wesley Health System, LLC, dba Wesley Medical Center

Type of Action: Amendment

Date Issued: 4/30/10

License No: MS-868-01

Amendment No.: 21

License Reviewer: BS

File No.: 15

Licensee: St. Dominic Cancer Center

Type of Action: Renewal

Date Issued: In Process

License No.: MS-039-03

Amendment No.: 25

License Reviewer: JDM

File No.: 16

Licensee: Delta Regional Medical Center

Type of Action: Amendment

Date Issued: 6/7/11

License No.: MS-010-01

Amendment No.: 76

License Reviewer: BS

File No.: 17

Licensee: University of Southern Mississippi

Type of Action: Amendment

Date Issued: 3/20/13

License No: MS-EBL-03

Amendment No.: 35

License Reviewers: JD/BS

File No.: 18

Licensee: Memorial Hospital at Gulfport

Type of Action: Amendment

Date Issued: 1/14/13

License No.: MS-254-01

Amendment No.: 96

License Reviewer: BG

File No.: 19

Licensee: Greenwood Leflore Hospital

Type of Action: Amendment

Date Issued: 6/27/11

License No.: MS-234-01

Amendment No.: 62

License Reviewer: LF

File No.: 20

Licensee: University of Mississippi

Type of Action: Amendment

Date Issued: 8/22/11

License No: MS-EBL-01

Amendment No.: 70

License Reviewer: JDM

File No.: 21

Licensee: SABIC Innovative Plastics US

Type of Action: Amendment

Date Issued: 6/29/12

License No.: MS-689-01

Amendment No.: 23

License Reviewer: BG

File No.: 22

Licensee: Cardinal Health

Type of Action: Amendment

Date Issued: 9/10/12

License No.: MS-974-01

Amendment No.: 8

License Reviewer: BS

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT NOTE IS INCLUDED FOR COMPLETENESS.

File No.: 1

Licensee: MISTRAS Group Inc.

Date of Incident: 12/11/12

Investigation Date: N/A

License No.: MS-995-01

NMED No.: 130005

Type of Incident: Source Recovery (Radiography)

Type of Investigation: Report Review

Comment: Not reported within 24 hours as required.

File No.: 2

Licensee: World Testing Inc.

Date of Incident: 8/26/12

Investigation Date: 8/26/12

License No.: MS-1035-01

NMED No.: 120501

Type of Incident: Vehicle Accident (Radiography)

Type of Investigation: Site

File No.: 3

Licensee: Anderson Regional Medical Center

Date of Incident: 9/10/12

Investigation Date: 9/19/12

License No.: MS-267-01

NMED No.: 120548

Type of Incident: Medical Event

Type of Investigation: Reactive Inspection

Comment: Not reported within 24 hours as required.

File No.: 4

Licensee: World Testing Inc.

Date of Incident: 8/27/12

Investigation Date: N/A

License No.: MS-1035-01

NMED No.: 120500

Type of Incident: Stuck Source (Radiography)

Type of Investigation: Report Review

File No.: 5

Licensee: Grenada Lake Medical Center

Date of Incident: 5/8/12 (DRH notified 7/26/12)

Investigation Date: 8/6-29/12

License No.: MS-410-01

NMED No.: 120468

Type of Incident: Missing/Lost RAM

Type of Investigation: Site and Office

File No.: 6

Licensee: Cardinal Health

Date of Incident: 1/27/12

Investigation Date: 1/27/12

License No.: MS-493-01

NMED No.: N/A

Type of Incident: Vehicle Accident (Radiopharmacy)

Type of Investigation: Report Review

File No.: 7

Licensee: Terracon Consultants, Inc

Date of Incident: 11/14/11

Investigation Date: 11/15-17/11

License No.: MS-724-01

NMED No.: 110608

Type of Incident: Stolen Gauge

Type of Investigation: Inspection and Investigation

File No.: 8

Licensee: GeoCon Laboratories, Inc.

Date of Incident: 9/23/11

Investigation Date: 9/23/11

License No.: MS-821-01

NMED No.: N/A

Type of Incident: Vehicle Accident (PG)

Type of Investigation: Site

File No: 9

Licensee: Chevron Products Company

Date of Incident: 3/22/11

Investigation Date: 3/22/11

License No.: MS-413-01

NMED No.: 110159

Type of Incident: Dislodged Source (FG)

Type of Investigation: Report Review

Comment: Not reported within 24 hours as required.

File No: 10

Licensee: DuPont DeLisle Plant

Date of Incident: 7/1/10

Investigation Date: 3/21/11

License No.: MS-919-01

NMED No.: 110157

Type of Incident: Gauge Malfunction

Type of Investigation: Inspection

Comment: Not reported within 24 hours as required.

File No.: 11

Licensee: Leaf River Cellulose

Date of Incident: 1/10/11

Investigation Date: 3/15/11

License No.: MS-565-02

NMED No.: 110137

Type of Incident: Gauge Malfunction

Type of Investigation: Report Review

Comment: Not reported within 24 hours as required.

File No: 12

Licensee: Lander Testing

Date of Incident: 1/12/11

Investigation Date: 1/13/11

License No.: MS-382-01

NMED No.: 110026

Type of Incident: Stolen Gauge

Type of Investigation: Report Review

Comment: Not reported within 24 hours as required.

File No: 13

Licensee: Cardinal Health

Date of Incident: 12/29/10

Investigation Date: 1/7/11

License No.: MS-493-01

NMED No.: N/A

Type of Incident: Delivery Error (Radiopharmacy)

Type of Investigation: Report Review

File No: 14

Licensee: Cardinal Health

Date of Incident: 12/28/10

Investigation Date: 12/28/10

License No.: MS-493-01

NMED No.: N/A

Type of Incident: Vehicle Accident (Radiopharmacy)

Type of Investigation: Report Review

File No.: 15

Licensee: Cardinal Health

Date of Incident: 12/12/10

Investigation Date: 12/17/10

License No.: MS-493-01

NMED No.: N/A

Type of Incident: Delivery Error (Radiopharmacy)

Type of Investigation: Report Review

File No.: 16

Licensee: Cardinal Health

Date of Incident: 12/13/10

Investigation Date: 12/15/10-1/18/11

License No.: MS-781-01

NMED No.: N/A

Type of Incident: Dose Prep Error (Radiopharmacy)

Type of Investigation: Report review

File No.: 17

Licensee: Wellman of Mississippi, Inc.

Date of Incident: 10/29/10

Investigation Date: 11/5/10

License No: MS-871-01

NMED No.: 100570

Type of Incident: Gauge Malfunction

Type of Investigation: Report review

Comment: Not reported within 24 hours as required.

File No.: 18

Licensee: Mississippi State University

Date of Incident: 10/15/10

Investigation Date: 11/10/10

License No.: MS-EBL-02

NMED No.: 100562

Type of Incident: Missing/Lost RAM

Type of Investigation: Report Review

File No.: 19

Licensee: Private Individual

Date of Incident: 7/16/10

Investigation Date: 7/16/10

License No.: N/A

NMED No.: 100393

Type of Incident: Abandoned Gauges

Type of Investigation: Site

File No.: 20

Licensee: Mississippi Dept of Transportation

Date of Incident: 5/24/10

Investigation Date: 5/24 thru 6/22/10

License No.: MS-261-01

NMED No.: 100286

Type of Incident: Damaged Gauge

Type of Investigation: Report Review

Comment: Not reported within 24 hours as required.

File No.: 21

Licensee: Halliburton Energy

Date of Incident: 5/2/10

Investigation Date: 5/2 thru 6/2/10

License No.: MS-415-01

NMED No.: 100269

Type of Incident: Source abandonment

Type of Investigation: Report Review

File No.: 22

Licensee: Shell Lubricants

Date of Incident: unknown

Investigation Date: 2/1-19/10

License No.: GL-154

NMED No.: 100077

Type of Incident: Missing/Lost RAM

Type of Investigation: Report Review

Comment: Not reported within 24 hours as required.

File No.: 23

Licensee: Georgia Pacific Corp.

Date of Incident: 2/11-12/10

Investigation Date: 2/12 thru 3/29/10

License No.: MS-188-01

NMED No.: 100072

Type of Incident: Gauge Malfunction

Type of Investigation: Report Review

Comment: Not reported within 24 hours as required.

File No.: 24

Licensee: Terra Mississippi Nitrogen Inc.

Date of Incident: 7/14/09 (identified by DRH on 11/4/09)

Investigation Date: 11/4 thru 11/12/09

License No. MS-571-01

NMED No.: 090870

Type of Incident: Gauge Malfunction

Type of Investigation: Inspection

Comment: Not reported within 24 hours as required.

File No.: 25

Licensee: Weyerhaeuser NR Company

Date of Incident: 6/1/09

Investigation Date: 6/1-10/09

License No.: MS-468-01

NMED No.: N/A

Type of Incident: Damaged Gauge

Type of Investigation: Site and Report Review