



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

May 30, 2014

Judson H. Turner, Director  
Georgia Department of Natural Resources  
Environmental Protection Division  
4244 International Parkway, Suite 120  
Atlanta, GA 30354

Dear Mr. Turner:

On April 15, 2014, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Georgia Agreement State Program (the Program). The MRB found the Georgia program adequate to protect public health and safety, but needs improvement, and compatible with the U.S. Nuclear Regulatory Commission's (NRC) program. In addition, the MRB agreed with the team's recommendation to recommend discontinuation of the period of Probation of the Georgia Agreement State Program and to place the Program on Heightened Oversight. The NRC staff is preparing to transmit this recommendation for Commission consideration by the end of June 2014. The final decision for the discontinuance of Probation will be made by the Commission and will be transmitted to the Governor of Georgia under separate cover.

Section 5.0, page 15, of the enclosed final report contains a summary of the IMPEP team's findings and recommendations. We request your evaluation and response to the recommendations in the report within 30 days from receipt of this letter. Based on the results of the current IMPEP review, and subject to the Commission's review the next full review of the Georgia Agreement State Program will take place in approximately 2 years, with a periodic meeting tentatively scheduled for January 2015.

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,

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Michael F. Weber  
Deputy Executive Director for Materials, Waste,  
Research, State, Tribal and Compliance Programs  
Office of the Executive Director for Operations

Enclosure:  
Georgia Final IMPEP Report

cc: Lee Cox, North Carolina  
Organization of Agreement States  
Liaison to the MRB

David Crowley, Program Manager  
Radiation Control Section



INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE GEORGIA AGREEMENT STATE PROGRAM

January 27– February 10, 2014

**FINAL REPORT**

Enclosure

## EXECUTIVE SUMMARY

This report presents the results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the Georgia Agreement State Program (the Program). The review was conducted during the period of January 27 - February 10, 2014, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Massachusetts.

Based on the results of this review, Georgia's performance was found satisfactory for the performance indicators, Technical Staffing and Training, Technical Quality of Licensing Actions, Technical Quality of Incidents and Allegation Activities, and Compatibility Requirements. The indicator, Technical Quality of Inspections, was found satisfactory, but needs improvement, and the indicator, Status of the Materials Inspection Program, was found unsatisfactory. Since the last IMPEP review, four of the indicators improved while one indicator, Status of the Materials Inspection Program, was downgraded, and one indicator, Compatibility Requirements, stayed the same.

The review team made one new recommendation regarding program performance by the State for the indicator, Technical Quality of Inspections. Of the twelve recommendations made during the 2012 IMPEP review, the team determined that two recommendations for the indicator, Technical Quality of Licensing Actions should remain open since actions to address these are in progress; however, the MRB directed that one of the recommendations regarding the implementation of pre-licensing procedures be closed as the team determined that the Georgia Program is implementing the pre-licensing guidance. The MRB directed instead that a new recommendation be added for the State to formally write the pre-licensing guidance into its official licensing procedures and provide training to the staff. The team determined, and the MRB agreed, that eight of the recommendations from the 2012 IMPEP review regarding program performance for the indicators, Status of the Materials Inspection Program, Technical Quality of Inspections and Technical Quality of Incident and Allegation Activities, can be closed. The two recommendations regarding the Sealed Source and Device program are no longer applicable, and are therefore closed, as the authority for this program was returned by the State to the NRC in August 2013.

Accordingly, the review team recommended, and the MRB agreed, that the Program is adequate, but needs improvement to protect public health and safety, and is compatible with the NRC's program. Due to the State's significant progress in addressing previous recommendations, the noted improvement in staff and management communications, and the strong commitment from Program management to continue to improve performance as evidenced by the actions taken since the last IMPEP review (including the replacement of the Program manager and the additional resources allocated for staffing), the review team recommended, and the MRB agreed, that the Program be removed from Probation and placed on Heightened Oversight. The MRB noted that the Commission will make the final decision regarding discontinuance of probation for the Georgia Program.

The review team recommended, and the MRB agreed, that the next IMPEP review take place in approximately two years from the Management Review Board meeting that was held on April 15, 2014, and that a periodic meeting be held in approximately one year from this IMPEP review

to assess the State's sustained performance and progress. The MRB directed that the periodic meeting include a focused review of the State's inspection program, specifically inspector accompaniments and implementation of inspection procedures, and progress in addressing the performance issues identified in the report.

## 1.0 INTRODUCTION

This report presents the results of the review of the Georgia Agreement State Program. The review was conducted during the period of January 27 - February 10, 2014, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Massachusetts. 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 October 26, 2012 to January 31, 2014, were discussed with Georgia managers on the last day of the review.

A draft of this report was issued to Georgia for factual comment on March 5, 2014. The State responded by letter dated April 2, 2014 (included as an Attachment to this report). The Management Review Board (MRB) met on April 15, 2014, to consider the proposed final report. The MRB found the Georgia Agreement State Program adequate to protect public health and safety, but needs improvement and compatible with the NRC's program.

The Radioactive Materials Program (the Program) is administered by the Air Protection Branch (the Branch) which is located within the Environmental Protection Division (the Division). The Division is part of the Department of Natural Resources (the Department). Organization charts for the Department, Division, and the Branch are included as Appendix B.

At the time of the review, the Program regulated 471 specific licenses authorizing possession and use of radioactive 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 Georgia.

In preparation for the review, a questionnaire addressing the common and applicable non-common performance indicators was sent to the Program on June 20, 2013. The Program provided its response to the questionnaire by email dated January 10, 2014. A copy of the questionnaire response can be found in NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML14014A159.

The review team's general approach for conduct of this review consisted of (1) examination of the Program's response to the questionnaire, (2) review of applicable Georgia statutes and regulations, (3) analysis of quantitative information from the Program's database, (4) technical review of selected regulatory actions, (5) field accompaniments of six Program 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 Georgia 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 October 26, 2012, the review team made 12 recommendations regarding the Georgia Agreement State Program's performance. The status of each recommendation is as follows:

1. "The review team recommends that the State develop and implement a plan to complete higher priority and initial inspections in accordance with the inspection frequencies specified in IMC 2800. (Section 3.2)"

Status: To initially address this recommendation, the Program developed and implemented a plan to complete higher priority and initial inspections in January 2013. This plan involved creating a spreadsheet of all known overdue inspections and organizing them by priority code. The inspections were then assigned to staff with the focus being on completing the most safety significant inspections first. The spreadsheet was discussed at each weekly staff meeting in order to monitor the progress of completing the overdue inspections. In November 2013 the Program implemented a new database which is being used to track inspections and licensing actions. This system is utilized in the license writing process as well. This database was a copy of a database being used by another Agreement State Program. The manager of that Agreement State Program helped the Program install and populate the database for their use. In populating the new database the program uncovered additional inspections that were overdue for inspection. At the time of the onsite review, the Program was in the process of completing these overdue Priority 1, 2, 3 and initial inspections. During the April 2014 MRB meeting, the Program reported it had completed all overdue inspections. This recommendation is closed.

2. "The review team recommends that the State update its inspection procedures to include the most recent revisions to Inspection Manual Chapter 2800, including the implementation of inspection guidance for NSTS reviews. (Section 3.3)"

Status: The Program completed the update of its inspection procedures in May 2013 to include the most recent revisions to Inspection Manual Chapter 2800, including the implementation of inspection guidance for NSTS reviews. This recommendation is closed.

3. "The review team recommends that the State perform Increased Controls security inspections at least as frequently as the priority of the license being inspected. (Section 3.3)"

Status: The Program updated its inspection procedures to address performance of Increased Controls security inspections to be at least as frequent as the priority of the license being inspected. The team determined that the Program successfully implemented its procedure related to Increased Controls security inspection frequency and performs Increased Controls security inspections at least as frequently as the priority of the license being inspected. This recommendation is closed.

4. "The review team recommends that the State perform a causal analysis regarding the deficiencies identified during the NRC accompaniments of the Program inspectors, as documented in this section as well as Appendix C of this report, and formulate corrective actions for the causes identified during this analysis. (Section 3.3)"

Status: The Program performed a causal analysis regarding the deficiencies identified during the NRC accompaniments of the Program inspectors, as documented in Section 3.3 as well as Appendix C of the 2012 IMPEP report dated February 5, 2013. The team verified that the Program formulated corrective actions for the causes identified during this analysis which included completion by inspectors of inspection preparation checklists that are discussed upon and reviewed by management before performance of inspections; and knowledge transfer and discussions of inspection performance and activities amongst staff and management during weekly staff meetings. This recommendation is closed.

5. "The review team recommends that the State update its medical licensing guidance documents to be consistent with Georgia regulations. (Section 3.4)"

Status: In August 2013 the Program completed actions to update their medical licensing guidance to include the new regulatory requirements regarding authorized user training and experience, including the need for preceptor attestation. The review team confirmed that license reviewers are implementing the updated guidance. This recommendation is closed.

6. "The review team recommends that the State verify that all previously approved medical authorized users have proper documentation of their qualifications, since the new requirements were initiated in 2008. (Section 3.4)"

Status: Since the previous review, the State devoted two full time employees over two months to identify how many authorized users (AUs), radiation safety officers (RSOs), authorized nuclear pharmacists (ANPs), and/or authorized medical physicists (AMPs) may have been added to a license prior to receiving all necessary credentialing documentation. In addition, the Program performed a search of the Nuclear Materials Events Database (NMED) for any medical events involving the identified authorized users; no events were found. However, due to a prioritization of more immediate health and safety issues within the State, program management decided to collect the appropriate documentation during future amendment, renewal, or notification actions for those licenses listing the identified authorized users. The State's proposed actions for completion of this activity were submitted in their Program Improvement Plan in response to the 2012 IMPEP report on March 7, 2013 (ML13070A161). The NRC staff approved the Plan and responded to the Georgia Agreement State Program on April 4,

2013 (ML13084A029). In addition, bimonthly calls are being held between the Program and the NRC staff which monitor the State's progress in addressing this and the other recommendations from the previous IMPEP review. The State plans to actively pursue the appropriate credentialing documentation for AUs, RSOs, ANPs, and/or AMPs beginning May 2014. From the casework reviewed, the team confirmed that preceptor attestation statements were reviewed as appropriate for licenses issued during the review period; however the Program is in the process of addressing this on applicable licenses issued since 2008 and at the time of this review, actions have not been completed. This recommendation remains open.

7. "The review team recommends that the State implement pre-licensing guidance for all licensing actions to provide assurance that radioactive material will be used as specified on the license. (Section 3.4)"

Status: After the last IMPEP review, the NRC conducted training on the proper completion of pre-licensing activities. Since this training, it has been the State's internal policy to complete this pre-licensing basis for confidence. The review team confirmed that license reviewers are evaluating new license applications and license amendments using a program which incorporates the essential elements of the NRC's revised pre-licensing guidance to verify that the applicant will use requested radioactive materials as intended. This recommendation is closed.

8. "The review team recommends that the State develop, document, provide training to the Program staff on, and implement a procedure to notify the NRC of reportable incidents in a complete, timely and accurate manner in accordance with Office of Federal and State Materials and Environmental Management Programs Procedure [SA-300](#) "Reporting Material Events. (Section 3.5)"

Status: The team found that the State developed a procedure for the proper reporting of events to the NRC. Training on this procedure was given to the staff in August 2013. From the casework reviewed, the team determined that the State provided notification to the NRC for all events requiring reporting. This recommendation is closed.

9. "The review team recommends that the State strengthen its incident response program and take measures to (1) develop, document, implement, and provide training to the Program on the incident response procedure; (2) ensure that reported incidents are promptly evaluated to determine the appropriate type and level of Program response, including providing for Program management notification and review; (3) ensure that incidents are responded to with an appropriate level of effort and in a timeframe commensurate with the potential health and safety and/or security consequences of the incident; (4) ensure that licensee written reports are reviewed for completeness and appropriate corrective actions; and (5) ensure that the Program's evaluation of licensee incidents, whether based on a review of licensee reports, on-site reviews, or inspection followup, is properly documented to facilitate future followup. (Section 3.5)"

Status: The team found that the State had developed a comprehensive program which addresses all aspects of incident evaluation, handling, response and documentation. Training on this procedure was given to the staff in August 2013. From the files

reviewed, the team determined that the staff is implementing the procedure and taking actions appropriate to the type of incident. The team confirmed that management reviews each case and provides feedback as to whether the action can be closed or if additional action or information is needed. This recommendation is closed.

10. “The review team recommends that the State revise, enhance, implement, and provide training to the staff on its Allegation Procedure, including providing additional written guidance on (1) recognizing and identifying allegations; (2) notifying Program management of all received allegations; (3) promptly evaluating allegations for safety and security significance; (4) ensuring that the level of effort and timeliness in responding to allegations is commensurate with the potential significance of the allegation; and (5) tracking all allegations to ensure timely review and closure and timely feedback to allegeders. (Section 3.5)”

Status: The team found that the State has revised its Allegation procedure to include the proper identification, response and reporting of allegations. Training on this procedure was given to the staff in August 2013. From the files reviewed, the team determined that all three allegations received by the State were properly documented, responded to and reported to the Program manager for further followup actions and closure. This recommendation is closed.

11. “The review team recommends that the State qualify one additional reviewer in SS&D evaluations to provide backup for the principal reviewer. This is in addition to a qualified reviewer or supervisor performing concurrence reviews. (Section 4.2 of the 2004 IMPEP report and 2012 IMPEP report).”

Status: Georgia returned its authority for the Sealed Source and Device Program in August 2013; therefore this recommendation is closed.

12. “The review team recommends that the State develop and implement a plan to inactivate SS&D registrations for devices and sources that are no longer being made or distributed. (Section 4.2.2)”

Status: Georgia returned its authority for the Sealed Source and Device Program in August 2013; therefore 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 Program’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 Program’s questionnaire response relative

to this indicator, interviewed managers and staff, reviewed job descriptions and training records, and considered workload backlogs.

At the time of the review, there were nine technical staff members and a program manager totaling approximately 10 full-time equivalents (FTE); this was increased from the 2012 IMPEP review where the staffing plan was 6 technical staff members and a program manager. Five of the nine technical staff members are fully qualified to perform inspection and licensing activities. The other four technical staff members are at various points in the qualification process and program management expects that all staff will be fully qualified by August 2015. Each technical staff member has at least a Bachelor's degree in a physical science and has between 6 months and 18 years of experience with the Program. There were four new hires during the review period. At the time of the last IMPEP review, there were two vacant technical staff positions and one technical staff position was removed. The Program manager left the Program during the current review period and one of the new hires was appointed to this position. There were no vacant positions at the time of the review; however, the team was informed by program management that one technical staff member resigned the week after the IMPEP review. The technical staff who resigned had only been with the program for six months and was not yet a fully qualified inspector or license reviewer. Program management will begin the process to post and fill the vacant position.

The Program updated its formal training and qualification process in June 2013. The new training plan for technical staff is consistent with the requirements in the NRC/Organization of Agreement States Training Working Group Report and the NRC's Inspection Manual Chapter (IMC) 1248, "Formal Qualifications Programs for Federal and State Materials and Environmental Management Programs." Two technical staff members were hired since the process was put into place and both are being trained utilizing the new process. The review team concluded that the Program's documented training program is adequate to carry out its regulatory duties and noted that program management supports the training program.

During the previous IMPEP review, the review team noted significant communication issues between staff and management which affected the ability of the program to manage its health and safety responsibilities. During the current IMPEP review, the team noted that the communication between program management and staff had greatly improved. Several changes were made during the 15 months since the October 2012 IMPEP review, including the appointment of a new program manager and the addition of weekly staff meetings. Program staff consistently stated to the team that they felt more comfortable discussing licensing and inspection questions with fellow staff and program management, and that they felt more like a team instead of individuals.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Georgia'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 Program's questionnaire response relative to this indicator, data gathered from the Program'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 at least as frequent as similar license types listed in IMC 2800, "Materials Inspection Program." In addition, the review team confirmed the Program is conducting Increased Controls inspections in conjunction with routine health and safety inspections.

The Program reported that it conducted approximately 70 high priority (Priority 1, 2, and 3) inspections during the review period, based on the inspection frequencies established in IMC 2800. Thirty of these inspections were conducted overdue by more than 25 percent of the inspection frequency prescribed in IMC 2800. In addition, the Program performed 21 initial inspections during the review period, 13 of which were conducted overdue. As required by IMC 2800, initial inspections need to be conducted within 12 months of license issuance. Twelve inspections, both high priority and initial, were overdue at the time of the review. The Program is in the process of working off an inspection backlog that was identified during the previous IMPEP review. Based on a recommendation from the previous IMPEP review the Program installed a new database to help track inspections to ensure that they are not conducted past their due date. In populating this database, the Program discovered additional inspections that were overdue which added to the backlog. The Program manager stated that the Program would be caught up on all overdue inspections by the MRB meeting, and reported at the April 2014 MRB meeting that the Program was current on inspections. Overall, the review team calculated that the Program performed 53 percent of its inspections overdue during the review period. The review team evaluated the Program's timeliness in providing inspection findings to licensees. A sampling of 15 inspection reports indicated that 2 inspection findings were communicated to the licensees greater than the Program's goal of 30 days after the inspection. One report had violations associated with the inspection and was sent out two months after the inspection, and the other report had no violations associated with the inspection and was sent out four months after the inspection.

During the review period, the Program granted 26 reciprocity permits. The review team determined that the Program inspected approximately 19 percent of candidate licensees operating under reciprocity in the year covered by the review period. This is below the NRC's criteria of inspecting 20 percent of candidate licensees operating under reciprocity as stated in IMC 1220, "Processing of NRC Form 241 and Inspection of Agreement State licensees Operating under 10 CFR 150.20."

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Georgia's performance with respect to the indicator, Status of Materials Inspection Program, be found unsatisfactory.

### 3.3 Technical Quality of Inspections

The review team evaluated the inspection reports, enforcement documentation, inspection field notes, and interviewed 5 of the 10 inspectors for 15 radioactive materials inspections conducted during the review period. The casework reviewed covered inspections of various license types: medical broad scope, medical institutions-therapy including high dose rate remote afterloader

(HDR), unsealed radioiodine therapy, permanent implant brachytherapy, radionuclide production (cyclotron), medical-diagnostic, portable gauges, industrial radiography, self-shielded irradiators, gamma knife, nuclear pharmacy, HDR mobile medical services, nuclear laundry, academic broad scope, manufacturing and distribution and Increased Security Controls for Large Quantities of Radioactive Materials (Increased Controls).

The inspection procedures utilized by the Program are consistent with the inspection guidance outlined in IMC 2800. An inspection report is completed by the inspectors which is then discussed and reviewed by the Program Manager prior to the issuance of inspection results to the licensee.

Based on the evaluation of casework, the review team noted that inspections covered all aspects of the licensee's radiation safety programs, the documentation supported 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 team found that inspection findings were appropriate, clearly stated and documented, and prompt regulatory actions were taken, as necessary. Inspection findings were documented in the reports and sent to the licensees with the appropriate letter detailing the results of the inspection in 9 of the 15 files. In 6 of the 15 case files reviewed, the team determined that the inspectors did not follow the Program's procedures for the classification and documentation of violations including the determination of the frequency of the next inspection, the reason for not inspecting temporary job sites, and specifics of the violations cited. Although the Program's inspection procedures discuss what action to take for different severity level violations, the Program had not completed or fully utilized its procedure for assigning severity level or seriousness of violations. Appendix C lists the inspection casework files reviewed, with case-specific comments, as well as the results of the inspector accompaniments. The Program has been working on revising its enforcement policy and procedure that includes how severity levels may be assigned and additional actions necessary dependent on the severity level. The Program issues to the licensee, either a letter indicating a clear inspection or a Notice of Violation (NOV), in letter format, which details the results of the inspection. When the Program issues an NOV, the licensee is asked by the Program to provide a written corrective action plan based on the violations cited, within 30 days. All findings are reviewed by the Program Manager.

The Program made considerable efforts to develop and update its inspection procedures in May 2013 to be equivalent to IMC 2800. The Program provided training to staff on the updated inspection procedures on July 23, 2013, and plans to review its inspection procedures at six month intervals. From discussions with Program management, the team determined that the Program has not had enough time to address complete implementation of its inspection procedures, including ensuring that inspectors conduct performance-based inspections and other performance issues that were identified during the inspector accompaniments detailed later in this section of the report. Program management discussed the results of the causal analysis performed in response to the previous IMPEP recommendation. The team verified that the Program formulated corrective actions for the causes identified during this analysis which included completion by inspectors of inspection preparation checklists that are discussed upon and reviewed by management before performance of inspections; and knowledge transfer and discussions of inspection performance and activities amongst staff and management during weekly staff meetings.

Accompaniments of six Program inspectors were conducted by an IMPEP team member during the weeks of August 5 and December 16, 2013. A re-accompaniment of one inspector was performed by another team member on November 6, 2013. The inspectors were accompanied during health and safety and security inspections of medical institutions with therapy [high dose rate remote afterloader (HDR) and permanent brachytherapy], industrial radiography, self-shielded irradiator, nuclear laundry and PET production and distribution (cyclotron-pharmacy). The accompaniments, with case specific comments, are identified in Appendix C. During the accompaniments, three of the six inspectors demonstrated appropriate inspection techniques. During two of the three medical inspection accompaniments, the team member found that the inspectors did not verify whether the licensee had any medical events through examination of the written directives (prescribed vs. administered dose). The inspectors were unaware of the revised IMC 2800 Inspection Procedure (IP) 87132 issued in April 2012 which addresses this issue. One of the inspectors had just been qualified to perform brachytherapy inspections. In addition, when one of the inspectors questioned the authorized medical physicist (AMP) about how he verifies if any medical events occurred, he stated that he was unaware of this requirement, and further added that he had never been inspected on this before. This AMP is authorized on multiple licenses which perform brachytherapy treatments. The team member determined that this inspector did not possess the training and experience necessary to be qualified to perform brachytherapy inspections. It was noted during the MRB meeting that this inspector had left the Program after the review. During an accompaniment of the other medical-therapy inspection (HDR remote afterloader), the inspector failed to respond immediately to a security breach in which it appeared that the licensee had allowed unescorted access to personnel who did not have the appropriate trustworthy and reliability clearance. The Program requested that this inspector be re-accompanied. Another team member performed an accompaniment of this inspector during an HDR inspection in November 2013. The team member found that the inspector examined appropriate records to confirm that no medical events had occurred; however, the team member noted that the inspector would benefit from additional brachytherapy training. During an accompaniment of a PET production pharmacy, the team member found that the inspector missed valuable opportunities to evaluate the licensee's performance while activities were ongoing. The inspector instead focused on the inspection checklist. As stated previously, the Program revised its inspection procedures in accordance with IMC 2800 which requires performance-based inspections. The team determined that the inspectors need to implement IMC 2800 which requires performance-based inspections. The team also advised program management that these inspectors would benefit from attending the newly revised brachytherapy training course. Overall, the team did not identify any missed health and safety issues during the accompaniments, and determined that the inspections were adequate to assess radiological health and safety and security at the licensed facilities. The review team recommends that the State: (1) implement its inspection procedures to ensure that inspectors document the reason for missing temporary job site inspections; document details and circumstances of violations in inspection reports and NOVs; consider an increase in inspection frequency for serious violations and conduct performance based inspections; and (2) complete its enforcement procedure for assigning severity levels of violations. The team discussed with Program managers the effectiveness of the corrective actions taken as a result of the previous causal analysis, as performance issues with inspectors were also identified as part of this review. The managers believe that constant reinforcement of procedures and expectations through training and the weekly staff meetings will, over time, result in improved performance.

The review team found that accompaniments of inspectors by supervisors were not conducted annually for all inspectors during the review period. Two of the six qualified inspectors were not accompanied; these included one inspector for whom an NRC inspector performed an accompaniment and an inspector who had briefly left and subsequently returned to the Program. The review team discussed with Program management the importance of performing annual supervisory accompaniments systematically to assess performance and assure application of appropriate and consistent policies and guides. The Program Manager committed to perform supervisory accompaniments beginning in 2014, of all qualified inspection staff.

The review team noted that the Program has an adequate supply of survey instruments to support its inspection program. Appropriate, calibrated survey instrumentation, such as Geiger-Mueller (GM) meters, scintillation detectors, ion chambers, micro-R meters, and neutron detectors, was observed to be available. The Program also has portable multi-channel analyzers and a mobile laboratory having a liquid scintillation counter, high purity germanium detectors, and gas proportional alpha/beta counters. Instruments are calibrated at least annually, or as needed, by persons specifically licensed to perform instrument calibrations that use National Institute of Standards and Technology traceable sources.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Georgia's performance with respect to the indicator, Technical Quality of Inspections, be found satisfactory, but needs improvement.

### 3.4 Technical Quality of Licensing Actions

The review team examined completed licensing casework and interviewed license reviewers for 18 specific licenses. 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 signature authority.

The licensing casework was selected to provide a representative sample of licensing actions completed during the review period. Licensing actions selected for evaluation included four new licenses, six amendments, six renewals, and two termination actions. Files reviewed included a cross-section of license types: medical with and without written directive required, industrial radiography, mobile nuclear medicine, gamma stereotactic radiosurgery, research and development, nuclear pharmacy, fixed and portable gauges, manufacturer and distributor generally licensed devices, and brachytherapy. The casework sample represented work from all current license reviewers. A list of the licensing casework evaluated is provided in Appendix D.

The Program has nine full time license reviewer staff positions. Currently there are seven license reviewers with signature authority. New license reviewers who are working on getting signature authority for licensing casework utilize a qualification journal and are assigned a mentor who eventually provides signature on the action. Mentored work is subject to an

independent secondary review by someone else with signature authority. Licensing actions are assigned by administrative and managerial staff directly to the license reviewer. After the initial technical review is completed, the action will undergo a peer review. The action is then processed and logged into an electronic tracking system. Since the last IMPEP review the Program has installed and is implementing a new system/database to process its licenses which the Program reports has improved the transparency of licensing work and is proving to be extremely useful in holding staff accountable for their work products.

The Program's licensing metric for new and renewal licensing actions is that they be completed within six weeks of receipt; amendments and terminations are to be completed within four weeks of receipt; and notifications are to be completed within two weeks of receipt. License tie-down conditions, including security requirements, were stated clearly and were inspectable. Deficiency letters were usually sent via email and follow-up telephone calls were made and documented, as appropriate. Both deficiency letters and follow-up telephone calls clearly stated regulatory positions, were used at the proper time, and identified substantive deficiencies in the licensees' documents. Licenses are issued for a five year period under a timely renewal system.

License reviewers use the Program's licensing guides that are similar to the NUREG-1556 Series. As of August 2013, the Program has completed actions to update its medical licensing guidance to include the new regulatory requirements regarding authorized user training and experience, including the need for preceptor attestation. In response to the recommendation made during the last IMPEP review regarding licensing actions which authorized physician users on the license without proper documentation to verify the training, experience, and preceptor attestation, the State devoted two full time employees over two months to identify how many authorized users (AUs), radiation safety officers (RSOs), authorized nuclear pharmacists (ANPs), and/or authorized medical physicists (AMPs) may have been added to a license prior to receiving all necessary credentialing documentation. In addition, the Program performed a search of the NMED database for any medical events involving the identified authorized users; no events were found. However, due to a prioritization of more immediate health and safety issues within the State, program management decided to collect the appropriate documentation during future amendment, renewal, or notification actions for those licenses listing the identified authorized users. The State's proposed actions for completion of this activity were submitted in their Program Improvement Plan in response to the 2012 IMPEP report, on March 7, 2013 (ML13070A161). The NRC staff approved the Plan and responded to the Georgia Agreement State Program on April 4, 2013 (ML13084A029). In addition, bimonthly calls are being held between the Program and the NRC staff which monitor the State's progress in addressing this and the other recommendations from the previous IMPEP review. The State plans to actively pursue the appropriate credentialing documentation for AUs, RSOs, ANPs, and/or AMPs beginning May 2014. The review team noted that the casework reviewed demonstrated that license reviewers were implementing this requirement currently.

The review team confirmed that license reviewers are evaluating new license applications and license amendments using a three-step program which incorporates the essential elements of the NRC's revised pre-licensing guidance to verify that the applicant will use requested radioactive materials as intended. The team reviewed four new licenses and confirmed that all received a pre-licensing visit. In addition, as specified in its Performance Improvement Plan and Progress Report, the Program has updated its procedures and implemented the pre-licensing

guidance for all licensing actions to ensure consistency with RCPD letter RCPD-08-020, “Requesting Implementation of the Checklist to Provide a Basis for Confidence that Radioactive Material will be used as Specified on a License and the Checklist for Risk-Significant Radioactive Material.” As the Program has not completed all actions to address the previous recommendation regarding the implementation of pre-licensing guidance for all licensing actions, the team, as directed by the MRB, recommends that the Georgia Program finalize the pre-licensing procedure and provide training to staff on the revised procedure.

The review team found that the program’s licensing procedures covering “Additional Information Requests and Timely Filed Notices” and “Identifying, Marking, and Securing of Increased Controls (IC) Documents” have been instituted and licenses are being reviewed to ensure these licensing procedures are being followed accordingly. The team found examples of administrative errors (typos, incorrect dates, missing cover letters, etc.) in half of the licenses reviewed; however, these were of minor health and safety significance. As noted previously, the Program has installed a new licensing system which, once implemented, will help to reduce the amount of errors in the licenses.

The review team found that the Program is in the process of marking licenses or documents containing security-related information as recommended in RCPD-11-005 “Additional Guidance and Clarification Regarding the Review of the Control of Sensitive Information during Integrated Materials Performance Evaluation Program Reviews”.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Georgia’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 Program’s actions in responding to incidents and allegations, the review team examined the Program’s response to the questionnaire relative to this indicator, evaluated incidents reported for Georgia in the Nuclear Material Events Database (NMED) against those contained in the Program’s files, and evaluated the casework for 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 Program’s response to three allegations involving radioactive materials, none of which were referred to the State by the NRC during the review period.

The review team identified 11 radioactive material incidents in NMED for Georgia during the review period; one of which was incorrectly categorized and did not require reporting. The team examined the Program’s non-reportable incidents and found them to be correctly categorized as non-reportable. The review team evaluated all 10 radioactive material incidents. The incidents included several categories: lost/stolen radioactive material, potential overexposure, medical event, damaged equipment and leaking sources. The review team determined that the Program’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 Program dispatched inspectors for on-site investigations in three 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 in all but two of the incidents that required reporting; both of these incidents involved leaking sources (i.e. 4 and 26 days late). Program management acknowledged this oversight and committed to reporting all events involving leaking sources in a timely manner.

The review team examined the Program's implementation of its incident and allegation processes, including written procedures for handling allegations and incident response, file documentation, notification of incidents to the NRC Headquarters Operations Center, and the use of NMED software. The team found that the Program developed comprehensive procedures which address all aspects of incident and allegation evaluation, handling, response and documentation. Training on this procedure was given to the staff in August 2013. From the files reviewed, the team determined that the staff is implementing the procedure and taking actions appropriate to the type of incident. The team confirmed that management reviews each case and provides feedback as to whether the action can be closed or if additional action or information is needed. When notification of an incident or an allegation is received, the procedure requires staff to complete a Complaint Tracking System (CTS) Form with details describing the incident/allegation and to notify the Program manager who determines the appropriate level of response.

In evaluating the effectiveness of the Program's response to allegations, the review team evaluated the completed casework for all three allegations received during the review period. The review team concluded that the Program took prompt and appropriate actions in response to concerns raised. The review team noted that the Program documented the investigations of concerns and retained all necessary documentation to appropriately close the allegations. The Program notified the concerned individuals of the conclusion of their investigations. The Georgia Open Records Act does not permit the Program to protect alleege's identities; staff is instructed to advise concerned individuals not to provide their name or contact information if they wish to remain anonymous.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Georgia'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 Georgia does not relinquish regulatory authority for a low level radioactive waste disposal or uranium recovery program. In addition, the State returned its authority for the Sealed Source and Device Program in August 2013; therefore, only the first non-common performance indicator applied to this review.

#### 4.1 Compatibility Requirements

##### 4.1.1 Legislation

Georgia became an Agreement State on December 15, 1969. The current effective statutory authority is contained in the Official Code of Georgia Annotated, Title 31 Chapter 13. The Department is designated as the State's radiation control agency. The Branch implements the radiation control program. 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

The Georgia regulations governing radiation protection requirements are located in Chapter 391 of the Georgia Administrative Code and apply to all ionizing radiation. Georgia requires a license for possession and use of all radioactive material.

The review team examined the State's administrative rulemaking process and found that the process takes approximately one year from the development stage to the final approval by the Board of Natural Resources. The public, the 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. The review team noted that the State's rules and regulations are not subject to sunset laws.

The review team evaluated the Program'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, the Program submitted five final regulation amendments to the NRC for a compatibility review. Four of the five amendments were adopted overdue. Those four amendments were overdue at the time of the last IMPEP review and the Program adopted them during this review period as part of its corrective actions from the last IMPEP review. Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally-binding requirements no later than three years after they become effective. At the time of this review, there were no amendments overdue for adoption. A complete list of regulation amendments can be found on the NRC website at the following address: [http://nrc-stp.ornl.gov/rss\\_regamendments.html](http://nrc-stp.ornl.gov/rss_regamendments.html).

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Georgia's performance with respect to the indicator, Compatibility Requirements, be found satisfactory.

## 5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, Georgia's performance was found satisfactory for the performance indicators Technical Staffing and Training, Technical Quality of Licensing Actions, Technical Quality of Incident and Allegation Activities and Compatibility Requirements; satisfactory, but needs improvement for the indicator, Technical Quality of Inspections; and unsatisfactory for the indicator, Status of the Materials Inspection Program. Since the last IMPEP review, four of the indicators have improved; one indicator has been downgraded, Status of the Materials Inspection Program; and one indicator has stayed the same, Compatibility Requirements.

The review team made one new recommendation regarding program performance by the State for the indicator, Technical Quality of Inspections. Of the twelve recommendations made during the 2012 IMPEP review, the team determined that two recommendations for the indicator Technical Quality of Licensing Actions should remain open since actions to address these recommendations are in progress; however, the MRB directed that one of the recommendations regarding the implementation of pre-licensing procedures be closed as the team determined that the Georgia Program is implementing the pre-licensing guidance. The MRB directed instead that a new recommendation be added for the State to formally write the pre-licensing guidance into its official licensing procedures and provide training to the staff. The team determined, and the MRB agreed, that eight of the recommendations from the 2012 IMPEP review regarding program performance for the indicators, Status of the Materials Inspection Program, Technical Quality of Inspections and Technical Quality of Incident and Allegation Activities, can be closed. The two recommendations regarding the Sealed Source and Device program are no longer applicable, and are closed, as the authority for this program was returned by the State to the NRC in August 2013.

Accordingly, the review team recommended, and the MRB agreed, that the Program is adequate to protect public health and safety, but needs improvement, and is compatible with the NRC's program. Due to the State's significant progress in addressing previous recommendations, the noted improvement in staff and management communications, and the strong commitment from Program management to continue to improve performance as evidenced by the actions taken since the last IMPEP review including the replacement of the Program manager and the additional resources allocated for staffing, the review team recommended, and the MRB agreed, that the Program be removed from Probation and placed on Heightened Oversight. The MRB noted that the Commission will make the final decision regarding discontinuance of probation for the Georgia Program.

The review team recommended, and the MRB agreed, that the next IMPEP review take place in approximately two years from the Management Review Board meeting, and that a periodic meeting be held in approximately one year from this IMPEP review to assess the State's sustained performance and progress. The MRB directed that the periodic meeting include a focused review of the State's inspection program, specifically inspector accompaniments and implementation of inspection procedures, and progress in addressing the performance issues identified in the report.

Below are the review team's recommendations, as mentioned in the report, for evaluation and implementation by the State:

RECOMMENDATIONS:

1. The review team recommends that the State: (1) implement its inspection procedures to ensure that inspectors document the reason for missing temporary job site inspections; document details and circumstances of violations in inspection reports and NOVs; consider a reduction in inspection frequency for serious violations and conduct performance based inspections; and (2) complete its enforcement procedure for assigning severity levels of violations. (Section 3.3)
2. The review team recommends that the State verify that all previously approved medical authorized users have proper documentation of their qualifications, since the new requirements were initiated in 2008. (Section 3.4, kept open from 2012 IMPEP)
3. The review team recommends that the State finalize its procedure for pre-licensing requirements and provide training to the staff on the revised procedure. (Section 3.4)

## LIST OF APPENDICES

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

## APPENDIX A

### IMPEP REVIEW TEAM MEMBERS

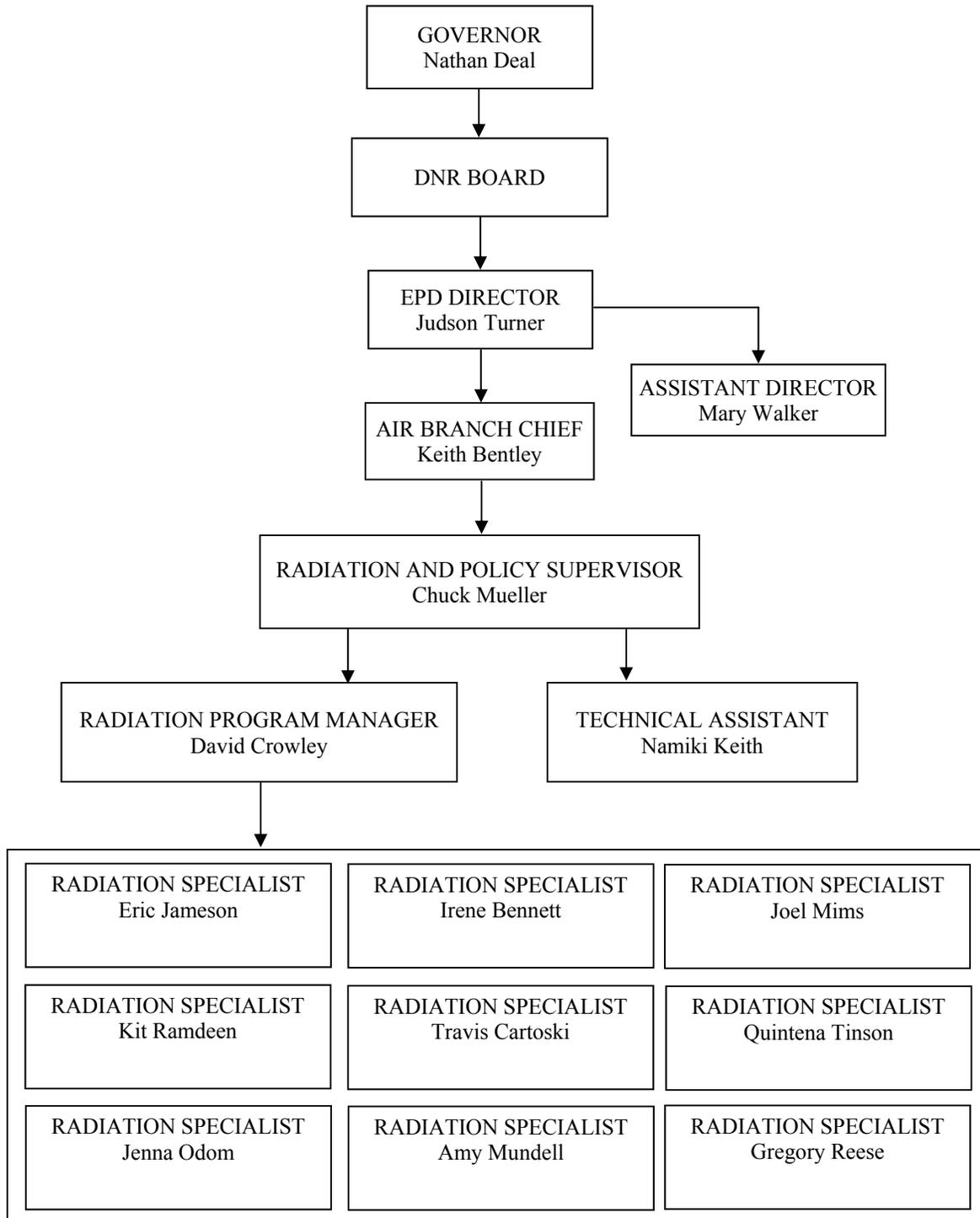
<b>Name</b>	<b>Area of Responsibility</b>
Michelle Beardsley, FSME	Team Leader Technical Quality of Incident and Allegation Activities Inspection accompaniments
Monica Ford, Region I	Technical Staffing and Training Status of Materials Inspection Program Compatibility Requirements
Joshua Daehler, Massachusetts	Technical Quality of Inspections
Jackie Cook, Region IV	Technical Quality of Licensing Actions
Bryan Parker, Region III	Inspection accompaniment

APPENDIX B

GEORGIA ORGANIZATION CHARTS

ADAMS ACCESSION NO.: ML14014A075

**GEORGIA AGREEMENT STATE PROGRAM  
ORGANIZATIONAL STRUCTURE—ENCLOSURE (2)**



## APPENDIX C

### INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1

Licensee: Unitech Services Group, Inc.  
Inspection Type: Routine, Unannounced  
Inspection Date: 8/8/13

License No.: 894-1  
Priority: 3  
Inspectors: KR; TC

Comments:

- a.) The violation cited a commitment made by the licensee that was misinterpreted by the Program.
- b.) The details of violation documented by inspectors did not match the licensee's commitment cited.

File No.: 2

Licensee: PETNET Solutions, Inc.  
Inspection Type: Routine, Unannounced  
Inspection Date: 12/18/13

License No.: 1475-1  
Priority: 2  
Inspectors: JM; KR

Comments:

- a.) Contrary to Program's inspection procedures and IMC 2800, inspectors did not document details and circumstances of violation, when violation occurred and who was involved.
- b.) Violation transmitted to licensee identified problem related to bill of lading whereas Inspectors documented problem related to emergency procedures without identification of any bill of lading. It is not clear how the documented problem of the emergency procedures evolved to a violation involving the bill of lading.

File No.: 3

Licensee: Monroe HMA, Inc. d/b/a Clearview Regional Medical Center  
Inspection Type: Routine, Announced  
Inspection Date: 12/17/13

License No.: 648-1  
Priority: 3  
Inspectors: TC; JO

File No.: 4

Licensee: Atlanta Outpatient Surgery Center  
Inspection Type: Routine, Unannounced  
Inspection Date: 12/19/13

License No.: 1325-1  
Priority: 3  
Inspector: QT

Comments:

- a.) Contrary to Program's inspection procedures and IMC 2800, inspector did not document details and circumstances of the cited violation, when requirement was violated and who was involved.
- b.) The non-cited violation identified a reporting requirement whereas problem resulted from the licensee's lack of knowledge of reporting requirement.

File No.: 5

Licensee: Metals & Materials Engineers, LLC  
Inspection Type: Initial, Announced  
Inspection Date: 8/7/13

License No.: 1643-1  
Priority: 1  
Inspectors: EJ; IB

Comment: Contrary to Program's inspection procedures and IMC 2800, inspectors did not document explanation for missing temporary job site inspection.

File No.: 6

Licensee: Metals & Materials Engineers, LLC  
Inspection Type: Special, Announced  
Inspection Date: 2/22/13

License No.: 1643-1  
Priority: 1  
Inspector: IB

File No.: 7

Licensee: St. Joseph's Hospital  
Inspection Type: Routine, Unannounced  
Inspection Date: 8/9/13; 9/5/13

License No.: 296-4  
Priority: 2  
Inspectors: IB; DC; AM

Comment: Inspection letter was issued 60 days after inspection was completed.

File No.: 8

Licensee: St. Joseph's Hospital  
Inspection Type: Routine, Unannounced  
Inspection Date: 7/10/13

License No.: 296-6  
Priority: 2  
Inspectors: KR; QT

File No.: 9

Licensee: Harbin Clinic Radiation Oncology  
Inspection Type: Routine, Unannounced  
Inspection Date: 11/6/13

License No.: 1411-1  
Priority: 2  
Inspectors: IB; QT

File No.: 10

Licensee: Radiotherapy Clinics of Georgia  
Inspection Type: Special, Unannounced  
Inspection Date: 12/18/13

License No.: 848-5  
Priority: 2  
Inspector: TC

File No.: 11

Licensee: Professional Service Industries, Inc.  
Inspection Type: Special, Announced  
Inspection Date: 6/14/13

License No.: 629-1  
Priority: 5  
Inspector: DC

Comment: Contrary to Program's inspection procedures, the Program did not schedule and conduct another inspection within six months of the escalated enforcement action, issuance of severity level II violation.

File No.: 12

Licensee: H & H X-Ray Services, Inc.  
Inspection Type: Reciprocity, Unannounced  
Inspection Date: 10/25/13

License No.: LA-2970-L01  
Priority: 1  
Inspector: KR

File No.: 13

Licensee: Georgia Institute of Technology  
Inspection Type: Routine, Announced  
Inspection Date: 2/27/13; 2/28/13

License No.: 147-1  
Priority: 3  
Inspectors: IB; DC

File No.: 14

Licensee: Acuren Inspection, Inc.  
Inspection Type: Routine, Announced  
Inspection Date: 1/31/13

License No.: 1115-1  
Priority: 1  
Inspectors: EJ; TC

Comment: Contrary to Program's inspection procedures and IMC 2800, inspectors did not document explanation for missing temporary job site inspection.

File No.: 15

Licensee: Honeywell International, Inc.  
Inspection Type: Routine, Unannounced  
Inspection Date: 2/15/13

License No.: 832-1  
Priority: 5  
Inspectors: EJ; FN

### INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1

Licensee: Metals and Materials Engineers  
Inspection Type: Initial, Unannounced, Special  
Inspection Date: 8/7/13

License No.: 1643-1  
Priority: 1  
Inspectors: EJ, IB

Accompaniment No.: 2

Licensee: Unitech Services Group, Inc.  
Inspection Type: Routine, Unannounced  
Inspection Date: 8/8/13

License No.: 894-1  
Priority: 3  
Inspectors: KR, IB

Accompaniment No.: 3

Licensee: St. Joseph's Regional Medical Ctr.  
Inspection Type: Routine, Unannounced, Special  
Inspection Date: 8/9/13

License No.: 296-4  
Priority: 2  
Inspectors: IB, DC

Comment: Inspector was not knowledgeable of revised inspection procedure IP 87132.

Accompaniment No.: 4

Licensee: Clearview Regional Medical Ctr.

Inspection Type: Routine, Unannounced

Inspection Date: 12/17/13

License No.: 648-1

Priority: 3

Inspector: TC

Accompaniment No.: 5

Licensee: PETNET Solutions, Inc.

Inspection Type: Routine, Unannounced

Inspection Date: 12/18/13

License No.: 1475-1

Priority: 2

Inspectors: JM, KR

Comment: Inspector did not perform a performance-based inspection as required by IMC 2800 and the Program's inspection procedures.

Accompaniment No.: 6

Licensee: Atlanta Outpatient Surgery Ctr.

Inspection Type: Routine, Unannounced

Inspection Date: 12/19/13

License No.: 1325-1

Priority: 3

Inspectors: QT, JM

Comment: Inspector was not knowledgeable of revised inspection procedure IP 87132.

Accompaniment No.: 7

Licensee: Harbin Clinic Radiation Oncology

Inspection Type: Routine, Unannounced

Inspection Date: 11/6/13

License No.: 1411-1

Priority: 3

Inspector: IB

## APPENDIX D

### LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1 Licensee: Nuclear Medicine Professionals, Inc. Type of Action: Amendment Date Issued: 10/18/13	License No.: 1631-1 Amendment No.: 01 License Reviewer: IB
File No.: 2 Licensee: Acuren Inspection, Inc. Type of Action: Amendment Date Issued: 1/7/14	License No.: 1115-1 Amendment No.: 17 License Reviewer: TC
File No.: 3 Licensee: Nuclear Medicine Professionals, Inc. Type of Action: New Date Issued: 11/9/12	License No.: 1631-1 Amendment No.: N/A License Reviewer: IB
File No.: 4 Licensee: Cemex, Inc. Type of Action: Amendment Date Issued: 12/3/13	License No.: 433-1 Amendment No.: 21 License Reviewer: KR
File No.: 5 Licensee: Imerys Kaolin, Inc. Type of Action: Renewal Date Issued: 12/30/13	License No.: 903-1 Amendment No.: 28 License Reviewer: TC
File No.: 6 Licensee: Schnabel Engineering South, LLC Type of Action: Renewal Date Issued: 9/24/13	License No.: 1360-1-1 Amendment No.: 08 License Reviewer: IB
File No.: 7 Licensee: Lewis Hall Singletary Oncology Center Type of Action: Renewal Date Issued: 11/18/13	License No.: 78-2 Amendment No.: 07 License Reviewer: KR
File No.: 8 Licensee: PETNET Solutions, Inc. Type of Action: Amendment Date Issued: 9/6/13	License No.: 1475-1 Amendment No.: 13 License Reviewer: JO

File No.: 9

Licensee: Landis International, Inc.  
Type of Action: Renewal  
Date Issued: 11/20/12

License No.: 941-1  
Amendment No.: 14  
License Reviewer: KR

File No.: 10

Licensee: St. Joseph's Hospital  
Type of Action: Amendment  
Date Issued: 10/7/13

License No.: 296-6  
Amendment No.: 08  
License Reviewer: JO

File No.: 11

Licensee: ECS Southeast, LLC  
Type of Action: Renewal  
Date Issued: 12/6/13

License No.: 1335-1  
Amendment No.: 14  
License Reviewer: JM

File No.: 12

Licensee: Golder Associates, Inc.  
Type of Action: Renewal  
Date Issued: 11/4/13

License No.: 1205-1  
Amendment No.: 12  
License Reviewer: QT

File No.: 13

Licensee: Havells USA  
Type of Action: New  
Date Issued: 6/21/13

License No.: 1611-1  
Amendment No.: N/A  
License Reviewer: EJ

File No.: 14

Licensee: Urology Specialist Surgery Center  
Type of Action: New  
Date Issued: 7/8/13

License No.: 1639-1  
Amendment No.: N/A  
License Reviewer: KR

File No.: 15

Licensee: Radiotherapy Clinics of GA  
Type of Action: Termination  
Date Issued: 11/7/12

License No.: 848-4  
Amendment No.: N/A  
License Reviewer: TC

File No.: 16

Licensee: Givinette Heart Specialists  
Type of Action: New  
Date Issued: 5/1/13

License No.: 1645-1  
Amendment No.: N/A  
License Reviewer: IB

File No.: 17

Licensee: Lewis Hall Singletary Oncology Center  
Type of Action: Amendment  
Date Issued: 11/18/13

License No.: 78-2  
Amendment No.: 07  
License Reviewer: KR

File No.: 18  
Licensee: Paper Making Controls Services  
Type of Action: Termination  
Date Issued: 10/28/13

License No.: 1430-1  
Amendment No.: N/A  
License Reviewer: EJ

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1

Licensee: Georgia Institute of Technology

Date of Incident: 12/6/12

Investigation Date: 12/19/12

License No.: 0147-1

NMED No.: 120728

Type of Incident: Leaking source

Type of Investigation: Telephone/report

Comment: The State did not report this event to the NRC within 24 hrs. as required (4 days late).

File No.: 2

Licensee: Cardinal Health Radiopharmacy

Date of Incident: 9/23/13

Investigation Date: 10/9/13

License No.: 1609-1

NMED No.: 130459

Type of Incident: Possible overexposure

Type of Investigation: Site

File No.: 3

Licensee: Professional Services Industries

Date of Incident: 4/24/13

Investigation Date: 5/2/13

License No.: 0629-1

NMED No.: 130217

Type of Incident: Lost RAM

Type of Investigation: Telephone

File No.: 4

Licensee: Pet Imaging

Date of Incident: 3/28/13

Investigation Date: 6/20/13

License No.: 1429-1

NMED No.: 130330

Type of Incident: Leaking source

Type of Investigation: Telephone

Comment: The State did not report this event to the NRC within 24 hrs. as required (26 days late).

File No.: 5

Licensee: Piedmont Hospital

Date of Incident: 8/7/13

Investigation Date: 8/9/13

License No.: 0292-1

NMED No.: 130361

Type of Incident: Medical event

Type of Investigation: Telephone

File No.: 6

Licensee: Radiotherapy Clinics of Georgia

Date of Incident: 12/16/13

Investigation Date: 12/16/13

License No.: 848-5

NMED No.: 140002

Type of Incident: Medical event

Type of Investigation: Site

File No.: 7

Licensee: GE Healthcare

Date of Incident: 12/16/13

Investigation Date: 12/16/13

License No.: N/A (Illinois licensee)

NMED No.: 140006

Type of Incident: Lost RAM

Type of Investigation: Telephone

File No.: 8

Licensee: Arizona Chemical

Date of Incident: 12/9/13

Investigation Date: 12/16/13

License No.: GL

NMED No.: 140039

Type of Incident: Equipment malfunction

Type of Investigation: Telephone/report

File No.: 9

Licensee: NOVA Engineering and Environmental

Date of Incident: 1/14/14

Investigation Date: 1/14/14

License No.: 1323-1

NMED No.: 140040

Type of Incident: Stolen RAM

Type of Investigation: Telephone

File No.: 10

Licensee: The PQ Corporation

Date of Incident: 1/16/14

Investigation Date: 1/16/14

License No.: 976-1

NMED No.: 140048

Type of Incident: Equipment malfunction

Type of Investigation: Telephone

April 2, 2014 letter from Judson H. Turner  
Georgia's Response to the Draft Report  
ADAMS Accession No.: ML14093A580

**Georgia Department of Natural Resources**  
**Environmental Protection Division**

2 Martin Luther King Jr. Drive, Suite 1456, Atlanta, Georgia 30334  
Judson H. Turner, Director  
(404) 656-4713

April 2, 2014

Duncan White, Chief  
ASPB/DMSAA/FSME  
Mail Stop: TW8-E24  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Mr. White,

I want to express my appreciation for your staff's efforts on the recent Integrated Materials Performance Evaluation Program (IMPEP) review. The Nuclear Regulatory Commission (NRC) team confirmed a number of accomplishments that Georgia's Radioactive Materials Program has achieved since our last review. While they identified targeted opportunities for improvement going forward, progress has been made on those items as well. We appreciate the guidance of the NRC team in assisting our program's return to satisfactory performance. During this process, a strong working relationship has developed between the NRC staff and Georgia's program staff that will serve us well as we continue to strengthen our program.

Our Radioactive Materials Program shows continual progress and I am confident that we are applying the resources and talent to achieve sustained performance. We are committed to ongoing improvement and will strive to address the latest NRC recommendations in the near future. As I have committed to Governor Deal and to your team, everyone here in Georgia is dedicated to seeing the unwavering success of the program.

Regarding the specifics of the draft report, we offer the attached comments that we believe should be incorporated to improve the accuracy and completeness of the final report.

Thank you again for the opportunity to comment on this report and for the excellent review. I very much look forward to discussing these matters further at the Management Review Board (MRB). If you have any questions between now and the MRB about our program, please contact the program manager, David Crowley, at (404) 363-7117 or by electronic mail at [david.crowley@dnr.state.ga.us](mailto:david.crowley@dnr.state.ga.us) or you can contact me directly.

Sincerely,



Judson H. Turner, Director  
Georgia Environmental Protection Division

Enclosure:

1. Comments on the "Review of the Georgia Agreement State Program" – Draft Report

## ENCLOSURE (1) – Comments on the “Review of the Georgia Agreement State Program” – Draft Report

- 1) Page 2, Section 2.0, Recommendation 1 within the “Status” paragraph: The new database was implemented in the middle of November, 2013. More importantly, it is not exclusively being used for tracking inspections. Since November, this has also been utilized for the writing, and tracking of license actions.
- 2) Page 3, Section 2.0, Recommendation 6 within the “Status” paragraph: The status summary does not properly credit the work which the program has completed to date, nor does it mention the plan forward in rectifying this item. Georgia devoted two full time employees for over two entire months just to identify how many doctors, radiation safety officers, nuclear pharmacists, and medical physicists may have been added to a license prior to receiving all necessary credentialing documentation. Due to a prioritization of more immediate health and safety issues within the state, program management settled on passively collecting the appropriate documentation when the users are listed for amendments, renewals, or notifications throughout the state. Active pursuit of these credentials has not started yet because of the administrative burden and vast backlog in inspections and license activities within the state up until present. The program plans to actively seek these documents beginning in May 2014. At that time, letters will be sent out once a month to 10% of the remaining list until all have been acquired.
- 3) Page 3, Section 2.0, Recommendation 7 within “Status” paragraph: Again, the status paragraph does not mention some of the actions which Georgia’s program has completed. Most importantly, there was NRC conducted training on proper completion of pre-licensing activities. Since that training, it has been an internal policy to complete this pre-licensing basis for confidence. The internal policy is to be formally written into official licensing procedures and then refresher training will reiterate the importance of this step in licensing.
- 4) Page 5, Section 3.0, Indicator 3.1, end of second paragraph: There is now a second vacancy that will need to be filled. A qualified member with six years of experience is resigning at the end of March. Program management will not “begin the process” but rather it has already started in filling both positions. The application acceptance period closed on 28 February 2014 and application review is soon underway. We are proceeding to hire two individuals from February’s posting in order to expedite the filling of both full time positions.
- 5) Page 10, Section 3.0, Indicator 3.4, third paragraph: This inaccurately represents the staffing design of the program. The program has nine full time license reviewer staff positions, two of which will be hired in the near future. However, it would be accurate to say there were seven license reviewers with signature authority. The second sentence mentions one of the staff is limited to doing simpler licensing actions, but this is not the case. All license reviewers receive a mixed set of licensing actions to work through; although, the new staff without signature authority are assigned a mentor who will work alongside the reviewer and eventually provide the signature on the action. Mentored work is still subject to an independent second review by someone else with signature authority. The last sentence of this paragraph is also incorrect. The old system was phased out the very week we received the new database, and has not been used since November 2013. This new database has improved transparency of licensing work and is proving extremely useful to hold staff accountable for their work products.

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- 6) Page 10, Section 3.0, Indicator 3.4, last paragraph: Same as comment 2.
  
- 7) Page 13, Section 4.0, Indicator 4.1, first paragraph of 4.1.2: We request the last sentence be removed or further clarified. As it stands, it suggests program staff is also accountable for the registration and inspection of machine produced radiation. This is not the case, but rather Georgia Department of Community Health (GA DCH) is responsible for these activities and maintains separate full time employees to cover this objective. Georgia’s Agreement State Program regulations are found in Chapter 391, but GA DCH has separate regulations all together. All nine of our full time staff (ten with the manager) are completely dedicated to the licensure and inspection of radioactive materials.