February 5, 2013

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

Dear Mr. Turner

On January 17, 2013, 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 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.

The IMPEP team identified an overall declining performance by Georgia. Significant deficiencies were noted throughout the program and have the potential to impact public health and safety, if left uncorrected. Because of the significance of the findings, the MRB will recommend to the Commission that Georgia be placed on probation. Probation is a formal process that requires Commission approval. If approved, a press release and notifications to the Governor and Congressional delegation will be made. Probation requires an increased level of communication between the NRC staff and the State program office. Pending the Commission's review, the Georgia Agreement State Program is on Heightened Oversight. Heightened Oversight involves increased interaction with the NRC staff, the State's preparation of a program improvement plan, bimonthly conference calls, and submission of status reports.

Section 5.0, page 18, of the enclosed final report contains a summary of the IMPEP team's findings and recommendations. The State was found unsatisfactory for two performance indicators and satisfactory, but needs improvement, for three performance indicators. The review team made 11 new recommendations regarding program performance by Georgia and kept open a recommendation from the 2008 review. Based on the results of the current IMPEP review, the MRB directed that the next full review of the Georgia Agreement State Program will take place in approximately one year (January 2014).

I request that you prepare and submit a program improvement plan as part of your response to the review team's recommendations and to further support the response you provided on December 27, 2012, to the draft IMPEP report. A program improvement plan is necessary whether or not the Commission approves placing your State on probation. I ask that you have your staff discuss the required elements of this plan with Mr. Brian McDermott, Director, Division of Materials Safety and State Agreements, Office of Federal and State Materials and Environmental Management Programs, before you submit it, to ensure that the planned actions and measures of success are clearly identified.

The plan should be submitted within 30 days of receipt of this letter. Upon review of your program improvement plan, the NRC staff will schedule the first conference call.

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,

/RA/

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 w/ encl: Alice Rogers, TX
Organization of Agreement States
Liaison to the MRB

Jim Ussery, Assistant Director
Environmental Protection Division

Jac Capp, Chief
Air Protection Branch

Chuck Mueller, Senior Policy Analyst
Air Protection Branch

James Hardeman, Manager
Radioactive Materials Program

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Letter to J. Turner, M.D. from Michael F. Weber dated February 5, 2013

SUBJECT: GEORGIA FY2013 FINAL IMPEP REPORT

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE GEORGIA AGREEMENT STATE PROGRAM

October 22-26, 2012

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 review was conducted during the period of October 22-26, 2012, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the States of North Carolina and Florida.

In 2008, the Georgia Agreement State Program was found to be adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. A period of Monitoring was initiated to monitor the effects of a State-wide hiring freeze, staff attrition and weaknesses in the Georgia Agreement State Program training and qualification programs.

The review team identified an overall declining performance by the Georgia Agreement State Program. Significant deficiencies were noted throughout the program and have the potential to impact public health and safety, if left uncorrected. The review team observed a basic misunderstanding of several important safety and security parameters by staff and management. The review team also observed significant communication issues between staff and management which affected the safety culture of the program.

Agreements between the NRC and a State assume that certain tasks be prioritized and performed in an efficient manner. Prominent among these tasks is the response to incidents involving radioactive materials. When a program becomes aware of a potentially significant incident, the program is obligated, under the Agreement, to promptly respond to ensure that public health and safety are protected. Additionally, prioritizing inspections of high priority licensees, such as industrial radiographers, is important because of the significant potential for harm if the radioactive material is not controlled properly. The review team's evaluation of the Georgia program identified numerous examples where appropriate tasks were not prioritized and thus, potentially affecting public health and safety.

For the 2012 IMPEP review, the review team recommended, and the Management Review Board (MRB) agreed, that the Georgia Agreement State Program be found adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. Due to the prioritization problems noted during the review, the review team considered whether to recommend that the Georgia program was compatible, or not, with the NRC's program. After some discussion and examination of the NRC's policy statements on the subject, the review team recommended to the MRB that, despite the problems noted, Georgia be found compatible with the NRC's program.

The review team recommended, and the MRB agreed, that Georgia's performance be found unsatisfactory for the performance indicators: Technical Quality of Inspections and Technical Quality of Incident and Allegation Activities. The review team recommended, and the MRB agreed, that Georgia's performance be found satisfactory, but needs improvement, for the performance indicators: Technical Staffing and Training, Status of Materials Inspection Program, and Technical Quality of Licensing Actions. The review team found Georgia's performance to be satisfactory for the two non-common performance indicators reviewed. The review team made 11 new recommendations regarding the performance of the State and kept open a recommendation from the 2008 IMPEP review.

Based on the results of the current IMPEP review, and in accordance with the criteria in the NRC Management Directive 5.6, the review team recommended, and the MRB agreed, that the period of Monitoring be discontinued and that the Georgia Agreement State Program be placed on Probation. In cases where program weaknesses exist regarding the adequacy and/or compatibility of an Agreement State's program yet the weaknesses are not so serious as to find the program inadequate to protect public health and safety, one of the options available to ensure continued protection of public health and safety, is to place the Agreement State on Probation.

The review team further recommended, and the MRB agreed, that a full IMPEP review be conducted within one year of the MRB meeting to assess the State's progress in addressing the open recommendations and the programmatic issues identified during this review.

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 October 22-26, 2012, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the States of North Carolina and Florida. 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 the 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 September 27, 2008, to October 26, 2012, were discussed with Georgia managers on the last day of the review. A second exit meeting was conducted by telephone with Georgia managers on November 2, 2012.

A draft of this report was provided to Georgia for factual comment on November 27, 2012. The State responded by letter dated December 27, 2012. A copy of the State's response is included as an Attachment to this report. A Management Review Board (MRB) met on January 17, 2013, 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 MRB will recommend to the Commission that the State be placed on Probation.

The Georgia Agreement State 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 490 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 Branch on June 19, 2012. The Branch provided its response to the questionnaire on October 4, 2012. A copy of the questionnaire response may be found in the NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML12278A182.

The review team's general approach for conduct of this review consisted of (1) examination of the Branch'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 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 September 26, 2008, the review team made four recommendations regarding the Georgia Agreement State Program's performance. The status of the recommendations is as follows:

1. "The review team recommends that the State develop, document, and implement a formal qualification program for licensing and inspection activities that includes written documentation and supervisor endorsement of competency in each program area. (Section 3.1 of the 2008 IMPEP report)"

   Status: The State developed, documented and implemented a formal qualification program for licensing and inspection activities in October 2009. This qualification program was applied to new staff currently going through the qualification process. The qualification program includes written documentation and supervisor endorsement of competency in each area. The Program manager also reviewed select licensing and inspection casework of fully qualified employees to assess their competency in each area. This recommendation is closed.

2. "The review team recommends that the State update its inspection procedures and enforcement guidance to include the requirements for timely follow-up of Increased Controls violations. (Section 3.3 of the 2008 IMPEP report)"

   Status: Following the 2008 IMPEP review, the State updated its inspection procedures and enforcement guidance; these updates incorporated guidance on the performance of Increased Controls inspections, and associated follow-up for any violations identified. This recommendation is closed.

3. "The review team recommends that the State develop and implement a process for conducting annual accompaniments of all radiation compliance inspectors by a supervisor. (Section 3.3 of the 2004 IMPEP report)"

   Status: Following the 2008 IMPEP review, the State developed requirements for an annual supervisory accompaniment of each radiation compliance inspector. This recommendation is closed.

4. "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 2013 IMPEP MRB)."

   Status: Although the State provided some SS&D training to two staff members, no additional SS&D reviewers were qualified to provide backup for the principal reviewer. This recommendation remains open.

3.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review the 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

Issues 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 Branch'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 six technical staff members and a program manager in the Branch, totaling approximately seven full-time equivalents (FTE). Five of the six technical staff members are fully qualified to perform inspection and licensing (with the exception of Sealed Source and Device (SS&D) work) activities. Only one staff member is fully qualified to perform SS&D reviews as the primary reviewer. Each technical staff member has at least a Bachelor of Science degree in a physical science and has between 4 and 16 years experience with the Program. There were no new hires during the review period and two technical staff members left the Program. According to the staffing plan, two positions were vacant at the time of this review. A third vacant position was removed from the staffing plan during the review period. Branch management stated that this position could be reinstated if funding for the position was made available.

In October 2009, the Program implemented a newly documented training plan for technical staff that is consistent with the requirements in the NRC/Organization of Agreement States Training Working Group Report and the NRC's Inspection Manual Chapter (IMC) 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area." This documented training plan was in response to a recommendation made during the 2008 IMPEP review. Staff members are assigned increasingly complex duties as they progress through the qualification process. The review team concluded that the Program's documented training program is adequate to carry out its regulatory duties and noted that Georgia management supports the training program.

While the review team concluded that the training program is adequate if implemented properly, it was noted by the team that correct knowledge of current licensing and inspection activities was lacking amongst management and senior staff. Therefore, training of new staff using these criteria, which includes in-house training and mentoring by management and senior staff, could lead to insufficient knowledge by the new staff members thereby impacting each of the other indicators reviewed. Examples of incorrect knowledge were identified by the review team in program components such as pre-licensing visits, inspection security requirements and response to incidents and allegations. These deficiencies are described in later sections of this report.

The review team also observed significant communication issues between staff and management which affected the safety culture of the program. These issues were evident during interviews with both the Program manager and with inspection/licensing staff members. As a result, key information was not communicated to the Program manager, including the awareness of significant incidents which occurred at licensee facilities. Work priorities were not effectively communicated to staff members, resulting in a failure to emphasize safety and security inspections of high risk licensees, such as industrial radiographers. This lack of communication affected the ability of the Georgia program to manage its health and safety responsibilities.

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, but needs improvement.

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 Branch'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 evaluated Georgia's inspection frequencies for all types of radioactive material licenses to determine if they are at least as frequent as similar license types listed in IMC 2800, "Materials Inspection Program." Several lower priority license categories established by the Program were assigned inspection priority codes that prescribe a less frequent inspection schedule than those established in IMC 2800 for similar license types. Specifically, small academic research programs have a Georgia inspection priority of six years. Currently, six Georgia academic institutions are in this category. Similar NRC licensees are inspected on a five-year frequency. The State also assigns several priority code 7 frequencies, which correlates to the NRC's five-year contacts. A total of 12 Georgia licensees have priority code 7 inspection frequencies. The Program manager stated that this was an oversight and that the Program intended to have the same inspection frequencies as the NRC. The Program manager indicated that they would adjust the inspection priorities as appropriate, if license fees associated with the license categories were not adversely affected.

The Program reported that it conducted approximately 247 high priority (Priority 1, 2, and 3) inspections during the review period, based on the inspection frequencies established in IMC 2800. Thirty-six of these inspections were conducted overdue by more than 25 percent of the inspection frequency prescribed in IMC 2800. In addition, the Program performed approximately 20 initial inspections during the review period, four of which were conducted overdue. As required by IMC 2800, initial inspections need to be conducted within 12 months of license issuance. Approximately 15 inspections, both high priority and initial, were overdue at the time of the review. The Program manager stated that inspections were conducted late due to the loss of inspection personnel and exacerbated by errors in the inspection database. Overall, the review team calculated that the Program performed 19.5 percent of its inspections overdue during the review period, an increase from the 15 percent overdue percentage

identified during the 2008 IMPEP review. Of the six Priority 1 (high safety significance) licensees in the State, four (67 percent) were inspected overdue. The review team recommends that the State develop and implement a plan to complete the higher priority and initial inspections in accordance with the inspection frequencies specified in IMC 2800.

The review team evaluated the Program's timeliness in providing inspection findings to licensees. A sampling of inspection reports indicated that inspection findings were communicated to the licensees within the Program's goal of 30 days after the inspection.

During the review period, the Program granted 252 reciprocity permits, of which approximately 35 were Priority 1–3 licenses. The Program does not categorize reciprocity inspections as candidates or non-candidates as is outlined in the IMC 1220 "Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating under 10 CFR 150.20" procedure. The review team determined that the Program inspected approximately 17 percent of Priority 1–3 licensees requesting reciprocity from Georgia during the entire review period. The Program manager stated that she prioritized inspections of Georgia specific licenses over the reciprocity licenses due to the limited staff available to do such inspections. The review team identified only one Priority 1 and five Priority 3 reciprocity license inspections that were completed during the review period. This issue is discussed further in Section 3.3.

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 satisfactory, but needs improvement.

3.3 Technical Quality of Inspections

The review team evaluated the inspection reports, enforcement documentation, inspection field notes, and interviewed inspectors for 25 radioactive materials inspections conducted during the review period. The casework reviewed included inspections conducted by six Program inspectors and covered inspections of various license types: medical institutions-therapy, medical-diagnostic, portable nuclear gauges, industrial radiography, self-shielded irradiators, industrial manufacturers and distributors, and 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.

The inspection procedures utilized by the Program are not consistent with the inspection guidance outlined in IMC 2800. In December 2010, changes to IMC 2800 were announced to Agreement States, who had 6 months to implement the changes. The changes included revised security inspection frequency, requirements for initial security inspections, and pre-licensing visits. Additionally, the inspection guidance addressed the use of the National Source Tracking System (NSTS) which is to be reviewed during each inspection of those licensees authorized to possess greater than or equal to Category 2 quantities of radioactive material. The Program did not update its inspection guidance and inspectors were not aware of the changes, including the required NSTS reviews. Further, most of the Program inspectors did not have access to the NSTS database, because their NSTS digital certificates had expired, and had not been renewed. 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.

Inspection field notes were completed by the inspector for each safety and security inspection and maintained in the licensee file, and an inspection report was sent to the licensee. For inspections that did not identify violations, the inspection reports were sent to the licensee by the inspector without supervisory review. Inspection reports that identified violations were sent to the licensee by the supervisor, after review and approval. During the review period, supervisory accompaniments were conducted annually for all but one of the inspectors; this inspector was accompanied in three of the four years by the supervisor.

Based on the evaluation of casework, the review team noted that Increased Controls security inspections of licensees were not always performed during the same visit as the health and safety inspections. In some cases, Increased Controls security inspections were not performed at all. For one of Georgia's industrial radiography licensees, a Priority 1 licensee, neither a safety nor a security inspection had been performed in over three years. For another industrial radiography licensee, safety inspections were performed in 2009 and 2012, but during neither visit was a security inspection performed. The review team recommends that the State perform Increased Controls security inspections at least as frequently as the priority of the license being inspected.

The review team determined that inspection documentation reviewed supported violations; however, the effectiveness of corrective actions taken to resolve these violations were not always documented or reviewed. During one of the security inspections performed in January 2011, a security violation was identified involving the failure to perform a trustworthiness and reliability determination of an employee granted unescorted access to licensed material. The licensee never responded to this violation, and the Program did not follow up with the licensee to ensure that corrective actions had been taken. It should be noted that the Program's failure to follow up on Increased Controls security violations was identified during the previous IMPEP review in 2008.

The review team found that the Program has a useful method of collecting data for both reciprocity work in the State, as well as licensed industrial radiography work at temporary job sites. Georgia licensees that perform industrial radiography at temporary job sites are required by license condition to notify the Program at least three days in advance prior to performing this work, affording the Program the opportunity to inspect licensee work. Reciprocity licensees are also required to provide at least three days notice of work performed in Georgia. Although the Program performed various inspections of reciprocity licensees during the review period, the review team identified only one Priority 1 licensee that had been inspected. Most of the reciprocity inspections were of Priority 5 licensees. Additionally, the review team only identified one industrial radiography licensee that had been inspected at a temporary job site during the review period, even though there were dozens of opportunities during the review period to perform these radiography inspections. The Program receives daily notifications via facsimile from Georgia licensees performing radiography within the State. The review team found that many of these notifications were placed into a former employee's mailbox and were not being reviewed by the Program. During interviews with staff members, the review team noted that other factors, such as distance to the licensed operations from the Program office, took priority over the safety significance of the licensed activities being performed.

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 available for investigations. Instruments are calibrated at least annually, or as needed, by a service provider with National Institute of Standards and Technology traceable sources. The Program uses a database to track each instrument, its current location, and next calibration date. The responsibilities for the calibration program are rotated amongst Program inspectors annually.

Accompaniments of six Program inspectors were conducted by two IMPEP team members during the weeks of September 10 and 24, 2012. The inspectors were accompanied during health and safety inspections of medical institutions with therapy, medical-diagnostic, portable nuclear gauges, industrial radiography, self-shielded irradiators, and industrial manufacturers and distributors. The accompaniments are identified in Appendix C. During the accompaniments, four of the six inspectors demonstrated appropriate inspection techniques, knowledge of the regulations, and conducted performance-based inspections. On one of the accompaniments, however, the inspector was unprepared for the inspection, stating to the licensee's RSO that he was unfamiliar with the licensee's program and license. This licensee had an extensive calibration program that was used to calibrate its own radiation detection instruments, pocket dosimeters, and alarming rate meters; however, none of the licensee's calibration program was reviewed by the Program inspector. Further, NSTS data was not reviewed during this inspection, nor were the licensee's increased controls requirements, such as trustworthy and reliability determinations. At one point during the accompaniment, the Program inspector told the licensee that they were not allowed to transfer a radiography camera to its Kentucky field office because the Kentucky field office was not on its Georgia license, indicating that the inspector was unfamiliar with licensing and jurisdictional boundaries. The inspector also told the licensee that a leak test needed to be performed each time that the radiography cameras were transferred to another location, which indicated that the inspector was unfamiliar with industrial radiography requirements. This is especially important, because this particular inspector performed four out of the seven industrial radiography inspections during this review period. Finally, the Program inspector only interviewed the RSO, and did not perform interviews of any of the radiographers or radiographer's assistants present at the facility.

During another of the inspector accompaniments, the inspector was not cognizant of the requirements for the two independent physical controls necessary to prevent unauthorized removal of a nuclear gauge when left unattended. 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.

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 unsatisfactory.

3.4 Technical Quality of Licensing Actions

The review team examined completed licensing casework and interviewed license reviewers for 36 specific licensing actions involving 27 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 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 8 new licenses, 3 renewals, 6 termination actions, and 19 amendments. Files reviewed included a cross-section of license types: broad scope, medical diagnostic and therapy, industrial radiography, research and development, nuclear pharmacy, gauges, manufacturers, and self-shielded irradiators. The casework sample represented work from all current license reviewers. A list of the licensing casework evaluated, with case-specific comments, is provided in Appendix D.

The Program has five license reviewers responsible for licensing in six geographical regions. One of the staff is currently only trained to do portable nuclear gauge licenses and amendments. This reviewer is being trained to write licenses for diagnostic nuclear medicine licensees. Each of the remaining four license reviewers has a specific region assigned to them, and they are responsible for the licensing in that region. Licensing actions are assigned by administrative staff directly to the license reviewer who is responsible for the region from which the licensing request originated. The workload for the remaining two unstaffed regions is shared by the license reviewers. Tracking numbers are assigned and logged into a computer tracking system.

After the technical review is completed, a license reviewer will place his or her action on a review table. The Program manager will then assign a secondary review to a peer license reviewer, or performs the secondary review herself. Documentation of the secondary review and the dates of discussions with the licensee and peer reviewer are documented on a routing form. If a license reviewer has authority to sign for a particular type of licensing action, the action is then processed and logged in an electronic tracking system. The Program manager authorizes license reviewers to sign licensing actions. Each license reviewer has a form documenting what licensing actions he or she is authorized to sign. If a license reviewer is not yet authorized to sign a type of license, the Program manager will sign the license document after the secondary peer review.

License tie-down conditions, including previously omitted security requirements, were stated clearly and inspectable. Deficiency letters were usually sent via email and follow-up telephone calls were documented in the licensee file. 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. Several of the Program's licensing guidance documents had not been updated since new regulations were adopted in 2008. Specifically, the Program's medical guidance had not been updated to include new regulatory requirements regarding authorized user training and experience, including the need for preceptor attestation. The review team recommends that the State update its medical licensing guidance documents to be consistent with Georgia regulations.

The review team identified five medical licenses that included authorized users that were added to the license without proper documentation to verify the training, experience, and preceptor attestation. The review team brought this to the attention of the Program. The Program manager and license reviewers indicated a misunderstanding regarding preceptor attestation requirements, as stated in the Georgia regulations, in situations where a potential authorized user is board certified. Due to this misunderstanding, the Program did not request preceptor attestation information for potential authorized users who submitted board certification documentation. 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.

The review team analyzed the Program's methodology for identifying Increased Controls licenses. The review team confirmed that license reviewers evaluated new license applications and license amendments using a three-step program. The Program's pre-licensing review forms incorporate the essential elements of the NRC's revised pre-licensing guidance to verify that the applicant will use requested radioactive materials as intended. Eight new licenses were reviewed but only one of those reviewed received a pre-licensing visit. Review of the form and interviews with the Program manager and license reviewers indicate that the intent of the pre-licensing form was misunderstood. New licenses issued to previously unlicensed entities did not prompt further investigation into whether a pre-licensing visit was required. Examples of failures in the pre-licensing process include a new nuclear pharmacy license that was not reviewed using the Program's guidance, and a new industrial radiography license which was properly identified as needing Increased Controls but did not receive a pre-licensing visit to ensure that the radioactive material would be used as intended and that security measures were implemented prior to obtaining material. The industrial radiography licensee was inspected for the first time, 11 months after issuance. The review team referred the Program to pre-licensing guidance in Radiation Control Program Directors (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." 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.

As stated above, the review team noted repeated examples of issues with thoroughness, completeness, consistency, clarity, technical quality, and adherence to existing licensing guidance. The instance of not performing a pre-licensing visit for an industrial radiography license posed a potential security threat.

The Program manager indicated that State open records laws prohibit the Program from routinely 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." License reviewers indicated that they encourage licensees to mark documents as "sensitive" if they want information withheld. If a licensee indicates in a document that any information is sensitive or a trade secret, the marked documentation is put in a separate locked file cabinet. If records are requested by a member of the public, the documents are reviewed and potentially withheld, as appropriate.

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, but needs improvement.

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 Branch's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Georgia in the Nuclear Material Events Database (NMED) against those contained in the Program's files, and evaluated the casework for 13 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 nine allegations involving radioactive materials, including five allegations referred to the State by the NRC during the review period.

The incidents selected for review included the following categories: medical event, leaking source, damaged equipment, contamination, transportation, lost/stolen radioactive material, and dose to embryo/fetus. Of the 13 incidents reviewed, 7 were reportable to the NRC. There were two additional incidents whose reportability was unclear due to a lack of supporting information. Two of the seven incidents determined to be reportable within 24 hours had not been reported by the State to the NRC Headquarters Operations Center. These incidents were reported subsequent to the IMPEP review. For two incidents, there was insufficient information in the Program's incident file to determine whether or not they were reportable to the NRC within 24 hours. Specifically, the licensee's reports indicate that the dose to the embryo/fetus for both incidents is "greater than 500 millirem," but the final dose determination was not available in the Program's incident files. Depending on the final dose, these incidents could be a 24-hour reportable event to the NRC and could meet the Abnormal Occurrence reporting criteria. Both of the incidents were reported in NMED as 30-day reports. These incidents were reported to the NRC Headquarters Operations Center following the IMPEP review. In addition, two of the seven reportable incidents were not promptly reported to NMED.

The review team found that although the Program understands "how" to report incidents to the NRC, some Program members did not know which types of incidents were reportable or how to determine whether or not an incident was reportable. The review team identified many items in NMED, including several for reportable incidents, which were identified in NMED as incomplete, resulting in the NMED contractor requesting additional information from the Program about the incidents. Those requests for additional information remain unanswered. 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."

The review team's evaluation of selected incident case files found that the Program's responses to reported incidents were not well coordinated, not consistent, and in several cases, not thorough. The Program's level of effort was often not commensurate with the potential health and safety significance of the incident. Based on a review of Program procedures and discussions with the Program manager and technical staff, it was revealed that the Program did not have either formal or informal procedures to respond to radioactive materials incidents. Incidents reported by licensees were typically reported directly to Program inspectors. Due to the lack of incident evaluation and response processes or procedures, when the Program inspectors received notification of an incident, there was no consistent approach to perform an initial evaluation of the safety or security significance of an incident. Furthermore, there was no clear expectation that the Program manager be informed of reported incidents, and as a result, the Program manager was unaware of several reported incidents until they were discussed by the review team. Because the Program manager was unaware of many reported incidents along with the lack of procedures for incident response, the review team determined that there was no consistent approach to determine the type, level, or timeliness of Program response.

On-site incident evaluation was performed for 2 of the 13 incident case files reviewed. For the first incident, a Program inspector performed an on-site inspection to evaluate the circumstances that led to the loss of a package containing sealed sources for therapy. For the second incident, the Environmental Radiation Protection Branch responded to the scene of a transportation incident involving several damaged portable nuclear gauges. For the remainder of the 13 case files, on-site inspections or evaluation of incidents were not performed by the Program. Although on-site inspections might not be warranted in all cases, there was no systematic approach by the Program to evaluate which incidents were of actual or potential safety consequence and warranted on-site inspection. The Program inspectors waited for the licensee's written report rather than perform an on-site review. The review team found that the Program's review of licensee written reports was not thorough. In several cases, the Program's review of licensee written reports did not identify missing information required by regulation to be contained in written reports. In some cases, the Program did not identify that licensee written reports were missing corrective actions to prevent recurrence or did not recognize that the licensee's identified actions were inadequate to prevent recurrence.

Several of the reported incidents that the Program did not respond to with an on-site inspection warranted a more detailed review by the Program, including an on-site presence to review licensee actions and perform an independent evaluation of the circumstances of the incident. During the review period, licensees reported three medical events, although only one was considered a medical event by the Program. In one case involving permanent implant prostate brachytherapy, the Program inspector did not recognize that it was a probable medical event even though the licensee reported that the administered dose to the prostate gland met the requirement for a medical event (i.e., was less than 80 percent of the prescribed dose). Another medical event involved yttrium-90 microspheres that leaked between the vial and the catheter during infusion. The inspector considered this a spill or contamination incident, not recognizing the potential medical event. The inspector indicated that he relied on the licensee's conclusion that no harm or medical event occurred. In this case, the leakage of the microspheres could indicate a potential generic problem with equipment and warranted follow-up.

Another incident that warranted additional review, including an on-site inspection by the Program, was a contamination incident involving nickel-63. The incident involved a researcher

who was using 25 millicuries of nickel-63 in aqueous solution. A licensee survey of the laboratory indicated levels of nickel-63 that were up to 220 times the licensee's action level. This resulted in the closure of the laboratory and additional surveys of adjacent areas, including hallways and a restroom. Two days later, when additional contamination was detected, the licensee notified the Program and took actions to restrict access to the entire building for almost three days. Licensee efforts to contain and decontaminate affected areas took over a week but the Program did not respond to the incident. The licensee's written report identified potential violations but the Branch did not issue any enforcement action. The review team found that the Program's response to the incident was not commensurate with the potential consequences. The review team questioned the Program manager regarding this incident and the lack of an appropriate response. The Program manager stated that it was the first time she had heard of the incident.

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 follow-up, is properly documented to facilitate future follow-up.

In evaluating the effectiveness of the Program's response to allegations, the review team evaluated the completed casework for nine allegations, including five that the NRC referred to the State during the review period. The review team concluded that the Program's actions in response to allegations were not well coordinated, not consistent, and not well documented. The review team found that the Program often failed to take prompt and appropriate actions in response to concerns raised.

The five allegations that were referred to the State by the NRC during the review period were discussed with the Program manager and appropriate technical staff. The first allegation, which was forwarded to the State in December 2009, was related to prostate brachytherapy procedures and had been put on hold by the Program manager. The stated reason it was put on hold was because the inspector was having difficulty understanding and addressing the concern. No documentation of the Program's actions in this case was available for review and the allegation continues to be on hold since December 2009. The second allegation referred to the State by the NRC related to scrap metal and nuclear laundry activities. The Program manager was unable to identify what actions were taken to address the allegation. The third allegation referred to the State by the NRC regarded an alleged impropriety by licensee personnel that was not related to regulatory requirements. The fourth allegation referred to the State by the NRC involved radiation levels in a public area. The Program manager stated that this allegation was reviewed by a former Program member; however, documentation regarding the results of the allegation evaluation was not available for review. The fifth allegation, which was forwarded to the State by the NRC in September 2012, involved a medical licensee and as of the date of the IMPEP review, had not yet been assigned to a staff member for evaluation.

The review team examined the Program's response to four allegations that were directly received by the Program. The first allegation regarded the alleged use of improper radiological boundaries by a radiography licensee. The inspector's evaluation appeared appropriate, was documented, and a verbal discussion of the outcome of the evaluation was provided to the alleger. The second allegation received by the State was related to a spill of radioactive material. The inspector who received the allegation concluded that the short half-life did not warrant that the State take any action, and the allegation was closed. The third allegation was received a few days after the second allegation. This allegation was from a different individual regarding the same facility from the second allegation, and also related to an alleged spill of radioactive material in addition to other radiation safety concerns. An inspector was dispatched to the licensee facility, documented the results of his evaluation, and provided verbal follow-up to the alleger.

The fourth allegation was received in December 2010, from a member of the public that purchased an abandoned storage unit and had inadvertently acquired an abandoned device containing an americium-241 sealed source. The individual stated that he would store the device and requested the Program's assistance in disposing of the device. The Program inspector who received the allegation made an attempt to locate the original owner of the device but took no further action when the attempt was unsuccessful. The review team discussed this allegation with the inspector during the review. The inspector said that no action had been taken since receipt of the allegation and that he was unaware of the status of the device. The review team discussed this with the Program manager, who expressed that she was unaware of the allegation and that had she been aware she would have taken action to recover the device or arrange for its disposal. Following this discussion, the Program manager took immediate action and contacted the member of the public. Fortunately, after almost two years, the individual still possessed the device, which he had wrapped in plastic and stored under an out-building on his property. The Program manager made arrangements for an inspector to recover the device from the member of the public later in the week.

The Program has a procedure to address allegations, entitled "Allegation Procedure," dated October 2004. The procedure includes guidance on allegation receipt, timeliness of allegation evaluation, and expectations for providing written follow-up to allegers. An allegation receipt form and a sample close-out letter to allegers are included in the procedure. The review team determined that the Program was not consistently implementing the Program's allegation procedure. As a result, allegations were not being tracked to ensure timely and thorough review, completion, and response to allegers. Furthermore, Program management was not aware of all received allegations. The review team noted that in several cases, the Program did not document the results of investigations of allegations and did not retain all necessary documentation to appropriately close allegations. The review team was informed that the Program is unable to protect the identity of allegers but makes every attempt to avoid disclosure of such information.

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 and training 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 of allegations and timely feedback to allegers.

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 unsatisfactory.

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; therefore, only the first two non-common performance indicators 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. Georgia also requires registration of all equipment designed to produce ionizing radiation.

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, after which the rule becomes effective in 20 days. 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 Georgia'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, Georgia submitted one final regulation amendment and no proposed regulation amendments or legally binding license conditions 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 three years after they become effective.

At the time of this review, the following four amendments were overdue:

- "Exemptions from Licensing, General Licenses, and Distribution of Byproduct Material; Licensing and Reporting Requirements," 10 CFR Parts 30, 31, 32, and 150 amendment (72 FR 58473), that was due for Agreement State adoption by December 17, 2010.

- "Requirements for Expanded Definition of Byproduct Material,"10 CFR Parts 20, 30, 31, 32, 33, 35, 61, 150 amendment (72 FR 55864), that was due for Agreement State adoption by November 30, 2010.

- "Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent," 10 CFR Parts 19 and 20 amendment (72 FR 68043), that was due for Agreement State adoption by February 15, 2011.

- "Medical Use of Byproduct Material – Authorized User Clarification," 10 CFR Part 35 amendment (74 FR 33901), that was due for Agreement State adoption by September 28, 2012.

The Branch has drafted proposed regulations for these four amendments and plans to submit them to the NRC for review in the spring of 2013. As noted in the 2008 IMPEP report, which covered a review period from August 27, 2004, through September 26, 2008, the Board approved nine regulation amendments in final on September 24, 2008. These nine regulation amendments became effective on November 6, 2008. Six of the nine regulation amendments adopted were overdue for adoption. A list of regulations that are due for adoption can be found at: http://nrc-stp.ornl.gov/rss_regamendents.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.

4.2 Sealed Source and Device Evaluation Program

In reviewing this indicator, the review team used three subelements to evaluate the Program's performance regarding the Sealed Source and Device (SS&D) Evaluation Program. These subelements are (1) Technical Staffing and Training, (2) Technical Quality of the Product Evaluation Program, and (3) Evaluation of Defects and Incidents Regarding SS&Ds.

In assessing the Georgia SS&D evaluation activities, the review team examined the Branch's response to the IMPEP questionnaire on this indicator, performed a search of the SS&D Registry for registrations issued by Georgia, and performed NMED searches of manufacturers and distributors identified on SS&D registrations issued by Georgia. A review of new and amended SS&D registration evaluations and supporting documents covering the review period

was conducted. The review team noted the staff's use of guidance documents and procedures; interviewed managers and staff; and verified the use of regulations, license conditions, and inspections to enforce commitments made in the applications.

4.2.1. Technical Staffing and Training

SS&D registry evaluation responsibilities currently are performed by two qualified reviewers where one of the reviewers (the Program manager) only performs the concurrence review. The Program has two reviewers in training to become full reviewers, but they are not currently active in the SS&D program. The review team was informed that the Program's vacant Environmental Planning Specialist position that has SS&D review job descriptions has been reclassified as an Environmental Compliance Specialist. There has been no change in SS&D staffing levels since the 2008 review. Due to the time delays in processing current SS&D requests and related licensing actions and the existing backlog of registry inactivations, as outlined below, the review team has concerns that the current SS&D staffing level may be insufficient to maintain the program. A recommendation was made to the State in 2004 to qualify one additional reviewer in SS&D evaluations to provide backup for the principal reviewers. That recommendation remains open, as discussed in Section 2.0.

The Program has a documented qualification program for SS&D reviewers as a subsection of its overall Licensing Evaluator Qualification Procedures. The SS&D qualification procedures require that reviewers in training be trained in-house with oversight from the senior SS&D reviewers.

4.2.2 Technical Quality of the Product Evaluation Program

During the review period, the Program processed 13 SS&D actions from seven different distributors. Only one of these distributors actually possesses radioactive materials related to the manufacturing, assembly and distribution under a SS&D registration. The other six distributors either do not possess radioactive materials used in the SS&D registration or are for foreign vendors where the product is manufactured overseas and dropped shipped to the customer. All six of these distributors are authorized to provide servicing of their products (installation, surveys, relocations, repair, leak testing, etc.) at customer sites. Of the 13 SS&D actions, six were amendments in their entirety and seven were new applications. Four of the seven new applications were transferred from Arizona and one of the new applications was transferred from Georgia to Virginia. There were no inactivations of SS&D registrations or emerging technology evaluations processed during the review period.

The review team evaluated six actions completed during the review period consisting of four new applications and two amendments in their entirety. The actions selected for review included the one distributor who actually possesses radioactive materials. The casework selected for review was representative of two qualified reviewers, one of whom while qualified for a full review, only performed concurrence reviews during the review period. A list of the SS&D registrations evaluated by the review team, with case-specific comments, may be found in Appendix F.

The Program performed evaluations based on sound conservative assumptions to ensure public health and safety is adequately protected. Good health physics practices were implemented

throughout this review period. As a means to legally enforce the commitments made for the SS&D actions, the Program incorporates these commitments into the radioactive materials license authorizing the distribution as a unique license condition listing the SS&D registry number in the tie-down condition. It is the policy of the Program to issue the radioactive materials license amendments with the issuance of the registration sheets. During the on-site visit, the review team identified one instance where the Program omitted these license conditions and therefore did not provide a means to legally enforce these commitments. Subsequent to the on-site review, an amendment was issued to correct this license.

In assessing the Program's SS&D evaluation activities, the review team examined information contained in the questionnaire response and interviewed program staff and managers. The review team confirmed that the Program follows the recommended guidance from the NRC SS&D Workshop, NUREG-1556, Volume 3, applicable and pertinent American National Standards Institute (ANSI) and Military standards, ISO-9001 and Georgia regulations, statutes, policies and procedures. The review team verified that these documents were available and were used appropriately in performing SS&D reviews. Deficiency correspondence clearly stated regulatory positions and all health and safety issues were addressed.

While the review team determined that product evaluations were complete and adequately addressed the integrity of the products during use and in the event of accidents, a few items were noted. The review team identified that one registration was missing the radiation dose rate profile at one meter as required in NUREG-1556, Volume 3 and that three of the registrations did not follow the format and content recommended in NUREG-1556, Volume 3 where the date on the registration's page one did not match the dates on the signature page. These formatting issues did not adversely impact the technical quality or content of the reviews; however, because the registrations are used nationally (especially page one information), the documents should be consistent with national standards.

The review team noted that there were occasionally a significant time lag between receiving SS&D action requests and when work began on these requests. Two actions were more than a year between application date and issuance and one action appeared to be reviewed only in conjunction with the license renewal that was submitted more than five years earlier. Another registry action took more than five months for a minor amendment and the corresponding license amendment authorizing its distribution was not completed until more than 14 months from that date. The review team also noted that the Program has in excess of 40 registry sheets that are no longer active due to licensees' discontinuation of product lines, license terminations, or have requested SS&D inactivations and license terminations that have not been processed. This issue was also noted during the 2008 review. SS&D registrations need to be inactivated to let other regulatory agencies know that that product line is no longer in production and additional care needs to be taken regarding obtaining servicing for or disposal of these products containing radioactive material. 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.

The review team determined the Program has not started reviewing two of the three SS&D actions indentified in the questionnaire as "under review". These actions were received in March and May, 2012. Also, the Program is aware that a Georgia licensee, Elekta, Inc. has acquired Nucletron, currently located in Maryland, and that in May 2012 the Program received

an application from Elekta for a radioactive materials distribution license and up to seven new SS&D applications for the current HDR devices authorized under the Maryland license. While the Program has not started reviewing these applications at the time of the review, they have been in contact with Elekta regarding licensing and SS&D requirements needed to obtain a Georgia license.

4.2.3 Evaluation of Defects and Incidents Regarding SS&Ds

Based upon the Branch's response to the questionnaire, interview of Program personnel, and the review team's searches of NMED, the review team selected a suspect incident reported during the review period involving SS&D products registered in Georgia. NMED No. 120591 was reviewed because the event description described a potential product defect. After reviewing the incident with the SS&D reviewer, the review team determined this incident was not related to a SS&D product defect but due to an implementation issue regarding the licensee's other QA/QC processes. The Program manager stated that they confirmed with the SS&D distributor that the QA/QC program related to the SS&D is being implemented.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Georgia's performance with respect to the indicator, Sealed Source and Device Evaluation Program, be found satisfactory.

4.3 Low-level Radioactive Waste Disposal Program

In 1981, the NRC amended its Policy Statement, "Criteria for Guidance of States and the 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 Georgia 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 Georgia. Accordingly, the review team did not review this indicator.

5.0 SUMMARY

The review team identified an overall declining performance by the Georgia Agreement State Program. Significant deficiencies were noted throughout the program and have the potential to impact public health and safety, if left uncorrected. The review team observed a basic misunderstanding of several important safety and security parameters by staff and management. The review team also observed significant communication issues between staff and management which affected the safety culture of the program.

As noted in Sections 3.0, and 4.0 above, the review team recommended, and the MRB agreed, that Georgia's performance be found unsatisfactory for the performance indicators: Technical Quality of Inspections and Technical Quality of Incident and Allegation Activities. The review team recommended, and the MRB agreed, that Georgia's performance be found satisfactory, but needs improvement for the performance indicators: Technical Staffing and Training, Status

of Materials Inspection Program, and Technical Quality of Licensing Actions. The review team found Georgia's performance to be satisfactory for the two non-common performance indicators reviewed. The review team made 11 new recommendations regarding the performance of the State and kept open a recommendation from the 2008 IMPEP review.

Accordingly, the review team recommended, and the MRB agreed, that the Georgia Agreement State Program be found adequate to protect public health and safety, but needs improvement, and compatible with the NRC's program. Agreements between the NRC and a State assume that certain tasks be prioritized and performed in an effective and efficient manner. Prominent among these tasks is the response to incidents involving radioactive materials. When a Program becomes aware of a significant incident, the Program is obligated, under the Agreement, to promptly respond to ensure that public health and safety is protected. Additionally, prioritizing inspections of high priority licensees, such as industrial radiographers, is important because of the significant potential for harm if the radioactive material is not controlled properly. Due to the prioritization problems noted during the review, the review team considered whether to recommend that the Georgia program was compatible, or not, with the NRC's program. After some discussion and examination of the NRC's policy statements on the subject, the review team decided to recommend that, despite the problems noted, Georgia be found compatible with the NRC's program.

Based on the results of the current IMPEP review, and in accordance with the criteria in the NRC Management Directive 5.6, the review team recommended, and the MRB agreed, that the period of Monitoring be discontinued and that the Georgia Agreement State Program be recommended to be placed on Probation. Specifically, the review team notes that Management Directive 5.6 states that in cases where program weaknesses exist regarding the adequacy and/or compatibility of an Agreement State's program yet the weaknesses are not so serious as to find the program inadequate to protect public health and safety, one of the options available to ensure continued protection of public health and safety, is to place the Agreement State on Probation. Probation is a formalized process that requires Commission approval. If approved, a press release and notifications to the Governor and Congressional delegation will be made. Probation also requires a program improvement plan and an increased level of communication between the NRC staff and the State program office.

The review team further recommended, and the MRB agreed, that a full IMPEP review be conducted within one year of the Management Review Board meeting to assess the State's progress in addressing the open recommendations and the programmatic issues identified during this review.

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 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)

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)

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)

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)

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

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)

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)

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)

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)

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 allegers. (Section 3.5)

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 2013 IMPEP MRB).

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)

LIST OF APPENDICES

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Appendix F	Sealed Source and Device Casework Reviews

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	**Area of Responsibility**
Jim Lynch, Region III	Team Leader Status of Materials Inspection Program Inspector Accompaniments
Monica Orendi, Region I	Technical Staffing and Training Compatibility Requirements
James Thompson, Region IV	Technical Quality of Inspections Inspector Accompaniments
Diana Sulas, North Carolina	Technical Quality of Licensing Actions
Janine Katanic, FSME	Technical Quality of Incident & Allegation Activities
Mike Stephens, Florida	Sealed Source and Device Evaluation Program Technical Quality of Licensing Actions

APPENDIX B

GEORGIA ORGANIZATION CHARTS

ADAMS ACCESSION NO.: ML12278A179

APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1
Licensee: Robert T. Hart — License No.: 1189-1
Inspection Type: Routine, Announced — Priority: 1
Inspection Date: 4/20/11 — Inspector: EJ

Comments:
a) This inspection performed overdue; last inspection was 7/16/09.
b) NSTS review not performed.

File No.: 2
Licensee: Hurst Boiler and Welding — License No.: 0918-1
Inspection Type: Routine, Unannounced — Priority: 2
Inspection Date: 1/27/11 — Inspector: KR

Comments:
a) This inspection performed overdue; last inspection was 6/23/08.
b) NSTS review not performed.
c) Security violation for this inspection issued on 5/6/11; however, no licensee response was received nor Program followup performed.

File No.: 3
Licensee: Mistras Group — License No.: 1615-1
Inspection Type: Initial, Announced — Priority: 1
Inspection Date: 3/8/12 — Inspector: JM

Comment: NSTS review not performed

File No.: 4
Licensee: Acuren Inspection — License No.: 1115-1
Inspection Type: Routine, Announced — Priority: 1
Inspection Date: 7/7/11 — Inspector: KR

Comments:
a) This inspection performed overdue; last inspection was 7/29/09.
b) NSTS review not performed.

File No.: 5
Licensee: Applied Technical Services License No.: 0896-1
Inspection Type: Routine, Announced Priority: 1
Inspection Date: 9/26/12 Inspector: KR

Comments:
a) No security review performed during this inspection.
b) NSTS review not performed.

File No.: 6
Licensee: Jan-X Integrity License No.: 1369-1
Inspection Type: Routine, Announced Priority: 1
Inspection Date: 7/21/11 Inspector: JM

Comments:
a) This inspection performed overdue; last inspection was 5/8/08.
b) NSTS review not performed.

File No.: 7
Licensee: Sowega Testing Services License No.: 0923-1
Inspection Type: Routine, Announced Priority: 1
Inspection Date: 10/8/09 Inspector: KR

Comment: This licensee is currently overdue for inspection, as of 10/26/12.

File No.: 8
Licensee: John D. Archbold Hospital License No.: 0078-1
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 7/29/10 Inspector: KR

File No.: 9
Licensee: Arch Chemicals License No.: 1619-1
Inspection Type: Initial, Announced Priority: 3
Inspection Date: 12/13/11 Inspector: IB

File No.: 10
Licensee: Cardinal Health License No.: 1609-1
Inspection Type: Initial, Announced Priority: 2
Inspection Date: 10/27/11 Inspector: KC

File No.: 11
Licensee: Emory University License No.: 0153-1
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 6/12/12 Inspector: JM

Comment: This inspection performed overdue; last inspection was 6/10/06.

File No.: 12
Licensee: Theragenics Corporation License No.: 0881-5
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 6/21/12 Inspector: EJ

Comment: This inspection performed overdue; last inspection was 9/18/08.

File No.: 13
Licensee: Savannah Oncology Center License No.: 1119-1
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 1/6/11 Inspector: TC

Comment: This inspection performed overdue; last inspection was 6/5/08.

File No.: 14
Licensee: Redmond Regional Medical License No.: 0165-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 5/26/11 Inspector: JM

Comment: This inspection performed overdue; last inspection was 5/14/07.

File No.: 15
Licensee: Harbin Clinic License No.: 1278-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 12/9/10 Inspector: JM

File No.: 16
Licensee: Shashikant A. Daya License No.: 1545-1
Inspection Type: Routine, Announced Priority: 3
Inspection Date: 9/16/10 Inspector: TC

File No.: 17
Licensee: Clark Holder Clinic License No.: 1358-1
Inspection Type: Routine, Announced Priority: 3
Inspection Date: 12/16/10 Inspector: TC

File No.: 18
Licensee: Georgia Urology License No.: 1510-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 7/26/11 Inspector: KC

File No.: 19
Licensee: Dalton Imaging Center License No.: 1222-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 12/7/11 Inspector: JM

File No.: 20
Licensee: Central Georgia Diagnostic License No.: 1093-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 7/21/11 Inspector: KR

File No.: 21
Licensee: Atlanta Outpatient Surgery License No.: 1325-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 11/2/10 Inspector: TC

File No.: 22
Licensee: Georgia Cardiology Center License No.: 1341-1
Inspection Type: Routine, Unannounced Priority: 5
Inspection Date: 8/2/12 Inspector: KR

File No.: 23
Licensee: Morpho Detection License No.: Reciprocity
Inspection Type: Reciprocity, Unannounced Priority: 5
Inspection Date: 5/29/12 Inspector: IB

File No.: 24
Licensee: Ameriphysics License No.: Reciprocity
Inspection Type: Reciprocity, Unannounced Priority: 5
Inspection Date: 2/17/12 Inspector: JM

File No.: 25
Licensee: Best Theratronics License No.: Reciprocity
Inspection Type: Reciprocity, Unannounced Priority: 3
Inspection Date: 4/4/12 Inspector: JM

INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1
Licensee: American Red Cross Blood Services License No.: 0096-2
Inspection Type: Routine, Announced Priority: 3
Inspection Date: 9/11/12 Inspector: JM

Comment: Inspector was not prepared to perform an NSTS review.

Accompaniment No.: 2
Licensee: Doctors Hospital License No.: 0615-1
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 9/12/12 Inspector: TC

Accompaniment No.: 3
Licensee: Hopewell Designs, Inc. License No.: 1434-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 9/13/12 Inspector: EJ

Accompaniment No.: 4
Licensee: Stewart Brothers, Inc. License No.: 1025-1
Inspection Type: Routine, Unannounced Priority: 5
Inspection Date: 9/14/12 Inspector: QT

Comment: The inspector was unaware of the two barrier portable gauge security rule.

Accompaniment No.: 5
Licensee: Northeast Georgia Medical Center License No.: 0199-1
Inspection Type: HDR/nuclear medicine Priority: 2
Inspection Date: 9/25/12 Inspector: IB

Accompaniment No.: 6
Licensee: Applied Technical Services License No.: 0896-1
Inspection Type: Industrial Radiography Priority: 1
Inspection Date: 9/26/12 Inspector: KR

Comments:
a) Security not reviewed.
b) NSTS not reviewed.
c) Inspector not well prepared for inspection.
d) Licensee's calibration program not reviewed during inspection.
e) Inspector unaware of some industrial radiography requirements.
f) Inspector unaware of licensed operations with respect to Georgia's jurisdictional boundaries.

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APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1
Licensee: Liberty Regional Medical Center — License No.: 1131-1
Type of Action: Termination — Amendment No.: 02
Date Issued: 4/18/11 — License Reviewer: JM

File No.: 2
Licensee: Southern Company Services, Inc. — License No.: 0040-4
Type of Action: Termination — Amendment No.: 34
Date Issued: 1/24/11 — License Reviewer: TC

File No.: 3
Licensee: RIS Mobile — License No.: 1527-1
Type of Action: Termination — Amendment No.: 02
Date Issued: 8/7/09 — License Reviewer: IB

File No.: 4
Licensee: Cytyc Surgical Products II — License No.: 1433-1
Type of Action: Termination — Amendment No.: 07
Date Issued: 1/18/12 — License Reviewer: EJ

File No.: 5
Licensee: Tri County Medical Center — License No.: 1484-1
Type of Action: Termination — Amendment No.: 02
Date Issued: 3/31/10 — License Reviewer: IB

File No.: 6
Licensee: Memorial Hospital of Adel — License No.: 0571-1
Type of Action: Termination — Amendment No.: 25
Date Issued: 9/6/12 — License Reviewer: KR

File No.: 7
Licensee: Bryan County Health Department — License No.: 1612-1
Type of Action: New — Amendment No.: N/A
Date Issued: 11/2/10 — License Reviewer: QT

File No.: 8
Licensee: Accura Engineering and Consulting Services, Inc. — License No.: 1511-1
Type of Action: Amendment — Amendment No.: 02
Date Issued: 11/1/10 — License Reviewer: QT

File No.: 9
Licensee: Theragenics Corporation License No.: 0881-5
Type of Action: Renewal Amendment No.: 10
Date Issued: 7/25/12 License Reviewer: EJ

File No.: 10
Licensee: Hopewell Designs, Inc. License No.: 1434-1
Type of Action: Renewal, Amendments Amendment Nos.: 12, 13, 14
Dates Issued: 1/7/11, 10/26/11, 12/12/11 License Reviewer: EJ

File No.: 11
Licensee: Yokogawa Corporation of America License No.: 1635-1
Type of Action: New Amendment No.: N/A
Date Issued: 7/31/12 License Reviewer: EJ

File No.: 12
Licensee: Emory University License No.: 0153-1
Type of Action: Renewal, Amendment Amendment No.: 64
Date Issued: 3/19/12 License Reviewer: JM

File No.: 13
Licensee: Phoenix Technology Consulting, LLC License No.: 1616-1
Type of Action: New Amendment Nos.: 00, 01, 02
Date Issued: 7/22/11 License Reviewer: IB

Comment: Improper use of pre-licensing guidance.

File No.: 14
Licensee: Northeast Georgia Imaging Center License No.: 1587-1
Type of Action: New Amendment No.: N/A
Date Issued: 1/23/09 License Reviewer: IB

Comment: Improper use of pre-licensing guidance.

File No.: 15
Licensee: Mercer Medicine, Mercer University License No.: 1628-1
Type of Action: New Amendment No.: N/A
Date Issued: 3/6/12 License Reviewer: KR

Comments:
a) Improper use of pre-licensing guidance.
b) Authorized user added to the license without proper documentation regarding training, experience, and preceptor attestation.

File No.: 16
Licensee: Applied Technical Services License No.: 0896-1
Type of Action: Amendments Amendment Nos.: 49, 50
Dates Issued: 10/14/09, 6/4/12 License Reviewer: JM

File No.: 17
Licensee: Honeywell International, Inc. License No.: 0832-1
Type of Action: Amendment Amendment Nos.: 44, 45
Dates Issued: 4/3/12, 8/23/12 License Reviewer: EJ

File No.: 18
Licensee: Atlanta Heart Associates, PC License No.: 1271-1
Type of Action: Amendment Amendment No.: 15
Date Issued: 4/6/11 License Reviewer: TC

Comment: Authorized user added to the license without proper documentation regarding training, experience, and preceptor attestation.

File No.: 19
Licensee: Redmond Regional Medical Center License No.: 0165-1
Type of Action: Amendment Amendment No.: 44
Date Issued: 9/4/12 License Reviewer: JM

Comment: Authorized user added to the license without proper documentation regarding training, experience, and preceptor attestation.

File No.: 20
Licensee: John D. Archbold Memorial Hospital License No.: 0078-1
Type of Action: Amendment Amendment No.: 46
Date Issued: 8/31/12 License Reviewer: KR

Comment: Authorized user added to the license without proper documentation regarding training, experience, and preceptor attestation.

File No.: 21
Licensee: Savannah Oncology Center License No.: 1119-1
Type of Action: Amendment Amendment No.: 05
Date Issued: 6/3/11 License Reviewer: IB

File No.: 22
Licensee: Harbin Clinic License No.: 1278-1
Type of Action: Amendment, Renewal Amendment Nos.: 15, 16
Dates Issued: 9/8/10, 6/1/12 License Reviewer: JM

Comment: Authorized user added to the license without proper documentation regarding training, experience, and preceptor attestation.

File No.: 23
Licensee: ROSA of Georgia License No.: 1178-1
Type of Action: Amendment Amendment No.: 25
Date Issued: 8/16/12 License Reviewer: TC

Comment: Authorized users added to the license without proper documentation regarding training, experience, and preceptor attestation.

File No.: 24
Licensee: Northside Hospital- Cherokee, Inc. License No.: 0798-1
Type of Action: Amendment Amendment No.: 24
Date Issued: 5/1/12 License Reviewer: IB

Comment: Authorized users added to the license without proper documentation regarding training, experience, and preceptor attestation.

File No.: 25
Licensee: Cardinal Health License No.: 1178-1
Type of Action: New, Amendments Amendment Nos.: 00, 01, 02, 03
Dates Issued: 2/22/11, 7/15/11, 11/7/11, 7/10/12 License Reviewer: KC

Comment: Pre-licensing guidance not used.

File No.: 26
Licensee: Mistras Group, Inc. License No.: 1615-1
Type of Action: New, Amendment Amendment Nos.: 00, 01
Dates Issued: 4/19/2011, 3/7/2012 License Reviewers: JM, CS

Comment: No pre-licensing visit conducted.

File No.: 27
Licensee: South East Veterinary Oncology License No.: 1622-1
Type of Action: New Amendment No.: 00
Date Issued: 10/12/11 License Reviewer: KS

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1
Licensee: Piedmont Fayette Hospital — License No.: 1340-1
Date of Incident: 7/6/10 — NMED No.: 120675
Investigation Date: 7/14/10 — Type of Incident: Medical Event
Type of Investigation: Review licensee report

Comments:
a) On-site investigation not conducted.
b) Incident not reported to the NRC Headquarters Operations Center or NMED (reported to the HOO post-review on 11/7/12).
c) Licensee's written report did not contain all of the information required by regulation, such as corrective actions to prevent recurrence.

File No.: 2
Licensee: PennTeck Diagnostics — License No.: 0975-1
Date of Incident: 1/7/12 — NMED No.: N/A
Investigation Date: 1/17/12 — Type of Incident: Lost/Stolen RAM
Type of Investigation: Review licensee report

File No.: 3
Licensee: Georgia Institute of Technology — License No.: 0147-1
Date of Incident: 1/21/11 — NMED No.: N/A
Investigation Date: 1/25/11 — Type of Incident: Leaking Source
Type of Investigation: Review licensee report

File No.: 4
Licensee: Building & Earth Sciences, Inc. — License No.: 1136-1
Date of Incident: 9/14/12 — NMED No.: 120618
Investigation Date: 9/14/12 — Type of Incident: Damaged Equipment
Type of Investigation: Review licensee report

File No.: 5
Licensee: Emory University — License No.: 0153-1
Date of Incident: 8/5/09 — NMED No.: 090656
Investigation Date: 8/14/09 — Type of Incident: Medical Event/Contamination
Type of Investigation: Review licensee report

Comments:
a) On-site investigation not conducted.
b) The inspector did not believe that an on-site investigation was warranted because the medical event was the result of an underdose rather than an overdose.
c) License's written report did not contain corrective actions to prevent recurrence.

File No.: 6
Licensee: Northeast Georgia Medical Center License No.: 1479-1
Date of Incident: 10/13/08 NMED No.: 080710
Investigation Date: 10/27/08 Type of Incident: Dose to Embryo/Fetus
Type of Investigation: Review licensee report

File No.: 7
Licensee: Atlanta Heart Associates, PC License No.: 1271-1
Date of Incident: 8/3/09 NMED No.: 090811
Investigation Date: 8/12/09 Type of Incident: Dose to Embryo/Fetus
Type of Investigation: Review licensee report

Comments:
a) On-site investigation not conducted.
b) The Program's incident file did not contain the licensee's fetal dose calculation, only that the dose was "greater than 500 mrem." The inspector could not locate the fetal dose calculation. The dose information is necessary to determine whether the incident is an Abnormal Occurrence.
c) The Program did not identify that the license's corrective actions would not be effective to prevent recurrence.

File No.: 8
Licensee: Atlanta Heart Associates, PC License No.: 1271-1
Date of Incident: 8/17/09 NMED No.: 090812
Investigation Date: 8/28/09 Type of Incident: Dose to Embryo/Fetus
Type of Investigation: Review licensee report

Comments:
a) On-site investigation not conducted.
b) The Program's incident file did not contain the licensee's fetal dose calculation, only that the dose was "greater than 500 mrem." The inspector could not locate the fetal dose calculation. The dose information is necessary to determine whether the incident is an Abnormal Occurrence.
c) The Program did not identify that the license's corrective actions would not be effective to prevent recurrence.

File No.: 9
Licensee: R&L Carriers License No.: Non-licensee
Date of Incident: 9/12/11 NMED No.: 110480
Investigation Dates: 9/12-14/11 Type of Incident: Transportation
Type of Investigation: Site

File No.: 10
Licensee: Medical Center of Central Georgia License No.: 0364-1
Date of Incident: 8/2/11 NMED No.: 120635
Investigation Date: 9/6/11 Type of Incident: Lost/Stolen RAM
Type of Investigation: Site

Comment: Incident reported to NMED over a year late.

File No.: 11
Licensee: Georgia Institute of Technology License No.: 0147-1
Date of Incident: 4/13/10 NMED No.: 100198
Investigation Date: 4/26/10 Type of Incident: Contamination
Type of Investigation: Review licensee report

Comments:

a) On-site investigation not conducted.
b) The Program did not identify the potential consequences of the incident with respect to occupational safety, environmental safety, as well as public health and safety. The incident involved extensive contamination of a lab and adjacent areas, and resulted in a campus building being temporarily shut down for decontamination.
c) The Program did not recognize that the licensee's written report identified violations of regulatory requirements. No violations were issued to the licensee.

File No.: 12
Licensee: Emory University License No.: 0153-1
Date of Incident: 5/24/11 NMED No.: 120641
Investigation Date: 6/7/11 Type of Incident: Medical Event/Contamination
Type of Investigation: Review licensee report

Comments:

a) On-site investigation not conducted.
b) This incident was reported by the licensee to the Program, including a written report, but the Program did not identify it as a reportable incident to the NRC nor did the Program capture the incident in its incident log.
c) The Program inspector considered the incident to be a spill of radioactive material and did not recognize the underlying associated medical event.
d) After the IMPEP review team identified the reportability of the incident, the Program reported the incident to the HOO on 10/25/12.
e) Licensee's written report did not contain some information required by regulation, such as actions to prevent recurrence and patient notification information.

File No.: 13
Licensee: Weyerhaeuser Company License No.: 1109-1
Date of Incident: 8/17/11 NMED No.: 110416
Investigation Date: 8/18/11 Type of Incident: Lost/Stolen RAM
Type of Investigation: Telephone

Comments:

a) Reported to NMED on 10/18/12, fourteen months after the incident.
b) Licensee did not submit a written incident report, as required by regulation.

APPENDIX F

SEALED SOURCE AND DEVICE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1
Registry No.: GA-0678-D-103-G SS&D Type: (E) Beta Gauge
Applicant Name: Yokogawa Corporation of America Type of Action: New
Date Issued: 8/22/12 SS&D Reviewers: EJ/CL

Comments:

a) Nineteen months to issue SS&D registration with no deficiency noted, and thirteen months to issue distribution license which authorized distribution a month before the SS&D was issued.
b) Applicant submitted design changes that included new drawings. A reviewer's note dated 8/14/12 indicating to include correspondence in next SSR certificate amendment. The distribution license did not include this correspondence in the tie-down.

File No.: 2
Registry No.: GA-0645-S-102-S SS&D Type: (AA) Manual Brachytherapy
Applicant Name: Theragenics Corporation Type of Action: Amendment in Entirety
Date Issued: 3/17/11 SS&D Reviewers: EJ/CL

Comments:

a) License renewal submitted in 2007 and this SS&D amendment is one of many changes requested since that time. The license was renewed authorizing this product distribution 14 months after the SS&D issuance.
b) SS&D registry commitments are not legally binding to the radioactive materials license.

File No.: 3
Registry No.: GA-0571-D-106-B SS&D Type: (E) Beta Gauge
Applicant Name: Honeywell International Type of Action: New
Date Issued: 8/22/12 SS&D Reviewers: EJ/CL

File No.: 4
Registry No.: GA-1077-D-102-S SS&D Type: (H) General Neutron Source Applications
Applicant Name: EADS SODERN North America Type of Action: New
Date Issued: 2/4/10 SS&D Reviewers: EJ/CL

Comments:

a) Concurrence date 2/9/10 does not agree with Page 1 date of 2/4/10.
b) License amended authorizing distribution 54 days after SS&D sheet issuance.
c) Licensee moved to Virginia and the NRC issued NR-1077-D-101-S that supersedes the Georgia SS&D registration. The Georgia registration was not inactivated or distribution license amended to show move.

File No.: 5
Registry No.: GA-1138-D-104-S SS&D Type: (J) Gamma Irradiation Category I
Applicant Name: Hopewell Design. Inc. Type of Action: Amendment in its Entirety
Date Issued: 12/12/11 SS&D Reviewers: EJ/CL

Comments:

a) Concurrence date 12/13/12 does not agree with Page 1 date 12/12/11.
b) SS&D issued 12 months after updated information provided.

File No.: 6
Registry No.: GA-1138-D-106-S SS&D Type: (K) Gamma Irradiation Category II
(H) General Neutron Source Applications
Applicant Name: Hopewell Designs, Inc. Type of Action: New
Date Issued: 12/20/10 SS&D Reviewers: EJ/CL

Comments:

a) Concurrence date 12/21/10 does not agree with Page 1 date 12/20/10.
b) Dose rate at one meter not listed in “External Radiation Levels” section.

ATTACHMENT

December 27, 2012 letter from Judson H. Turner
Georgia's Response to the Draft Report
ADAMS Accession No.: ML12363A71