February 3, 2004

L. Hall Bohlinger, Secretary
Office of the Secretary
Department of Environmental Quality
602 N. 5th Street
Baton Rouge, LA 70802

Dear Mr. Bohlinger:

On January 12, 2004, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Louisiana Agreement State Program. The MRB found the Louisiana program adequate to protect public health and safety and compatible with the Nuclear Regulatory Commission's program.

Section 5.0, page 14, of the enclosed final report presents the IMPEP team's recommendation for the State of Louisiana. We received your letter dated December 12, 2003, and request no additional information at this time.

Based on the results of the current IMPEP review, the next full review will be in approximately four years. However, due to the communications and oversight issues highlighted in recommendations made in Sections 3.2 and 3.3, the review team recommended, and the MRB agreed, that a periodic meeting take place with the State approximately one year from the IMPEP review.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Radiation Control Program and the excellence in program administration demonstrated by your staff, as reflected in the team's findings. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

***/RA/***

Carl J. Paperiello
Deputy Executive Director
for Materials, Research and State Programs

Enclosure:
As stated

cc: Listed on page 2

cc: Robert Hannah, Deputy Secretary
Department of Environmental Quality

Linda Levy, Assistant Secretary
Office of Environmental Services

Jim Brent, Assistant Secretary
Office of Environmental Assessment

Thomas Bickham, Assistant Secretary
Office of Management and Finance

Bruce Hammatt, Assistant Secretary
Office of Environmental Compliance

Michael E. Henry, Senior Advisor

Steve Collins, IL
OAS Liaison to the MRB

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cc: Listed on page 2

bcc: Chairman Diaz
Commissioner McGaffigan
Commissioner Merrifield

Distribution: See next page

***See previous concurrence.**

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Department of Environmental Quality

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF LOUISIANA AGREEMENT STATE PROGRAM

October 27 - 31, 2003

# FINAL REPORT

U.S. Nuclear Regulatory Commission

## 1.0 INTRODUCTION

This report presents the results of the review of the Louisiana radiation control program. The review was conducted during the period of October 27-31, 2003, by a review team comprised of technical staff members from the Nuclear Regulatory Commission (NRC) and the Agreement State of 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 a Final General Statement of Policy," published in the Federal Register on October 16, 1997, and the November 5, 1999, NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)." Preliminary results of the review, which covered the period March 4, 2000 to October 31, 2003 were discussed with Louisiana management on October 31, 2003.

A draft of this report was issued to Louisiana for factual comment on December 1, 2003. The State responded by letter dated December 12, 2003. The Management Review Board (MRB) met on January 12, 2004 to consider the proposed final report. The MRB found the Louisiana radiation control program adequate to protect public health and safety and compatible with NRC's program.

The Louisiana Agreement State program is located in the Department of Environmental Quality (the Department). The Department is divided into four Offices which are organized by function rather than by program specialty and report to the Secretary of the Department. The Office of Environmental Services contains the Permits Division; the Office of Environmental Compliance contains the Surveillance and Enforcement Divisions; the Office of Management and Finance has the Laboratory Services Division; and the Office of Environmental Assessment includes the Environmental Planning Division. All Department inspection and compliance activities, including emergency response, are performed by the Surveillance Division. This Division inspects radioactive materials, hazardous materials, radiation-producing machines, air quality, water quality, asbestos, underground storage tanks, tire disposal, etc. The Permits Division is responsible for all licensing/permitting in the same manner. The radioisotope laboratory is part of the Laboratory Services Division. Enforcement is performed by the Enforcement Division. Regulations are developed and maintained by the Environmental Planning Division.

In response to a request made during the previous IMPEP review, a Senior Advisor was designated as the single point of contact for the Department for all radioactive materials matters. For this review, the Senior Advisor coordinated Department efforts to complete the questionnaire, arranged for inspector accompaniments, and arranged for meetings and interviews.

Organization charts for the Department, the Office of Environmental Compliance, and the Permits Division are included as Appendix B. Additional organization charts were unavailable at the time of the review. The Louisiana program regulates approximately 540 specific licenses authorizing agreement materials. The review focused on the 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 Louisiana.

In preparation for the review, a questionnaire addressing the common and non-common performance indicators was sent to the State on July 29, 2003. The Department provided a response to the questionnaire on October 13, 2003. A copy of the questionnaire response can

be found on NRC's Agencywide Document Access and Management System using the Accession Number ML033350411.

The review team's general approach for conduct of this review consisted of: (1) examination of Louisiana's responses to the questionnaire; (2) review of applicable Louisiana statutes and regulations; (3) analysis of quantitative information from the Department's licensing and inspection data base; (4) technical evaluation of selected licensing and inspection actions; (5) field accompaniments of three Louisiana inspectors; and (6) interviews with staff and management to answer questions or clarify issues. The team evaluated the information that it gathered against the IMPEP performance criteria for each common and applicable non-common performance indicator and made a preliminary assessment of the radiation control program's performance.

Section 2 below discusses the State's actions in response to recommendations made following the previous IMPEP review and the team's conclusions regarding close-out of the recommendations. Results of the current review for the IMPEP common performance indicators are presented in Section 3. Section 4 discusses results of the applicable non-common performance indicators, and Section 5 summarizes the review team's findings and recommendations. Recommendations made by the review team are comments that relate directly to program performance by the Department. A response is requested from the Department to all recommendations in the final report.

## 2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded on March 3, 2000, four recommendations were made and the results transmitted to J. Dale Givens, Secretary, Department of Environmental Quality, on June 8, 2000. The review team's evaluation of the current status of the recommendations is as follows:

1. The review team recommends that the Department modify the inspection frequency for High Dose-rate Afterloaders (HDRs) to one year. (Section 3.1)

   Current Status: The State has changed the inspection frequency for HDRs to a one year frequency. The review team noted that HDRs are being inspected at the proper frequency. This recommendation is closed.

2. The review team recommends that the Department implement measures to ensure that staff receive appropriate and adequate training in health physics and operational topics. (Section 3.3)

   Current Status: The canceling of training for Louisiana staff that occurred about the same time as the last IMPEP review was a one-time action. As discussed in Sections 3.1 and 4.2.1, staff is receiving necessary training for assigned tasks. This recommendation is closed.

3. The review team recommends that the Department review all licenses to ascertain if financial assurance for decommissioning is required, and appropriately request licensees to provide a financial assurance mechanism. (Section 3.4)

Current Status: The Department reviewed all licenses and identified two licensees requiring financial assurance mechanisms. The Department has reviewed and approved the financial assurance mechanisms for both licensees. This recommendation is closed.

4. The review team recommends that the Department either use the existing site characterization to terminate the cesium-137 contamination possession license; recharacterize the site using current decommissioning criteria; or require the licensee to begin decommissioning activities in accordance with the Decommissioning Timeliness Rule. (Section 3.4)

   Current Status: The Department recharacterized the site and found that it did not meet the criteria for license termination. The Department contacted the Environmental Protection Agency (EPA) for assistance in decontaminating the site. EPA accepted this site to their Super Fund program. The EPA has completed remediation of the site and the Department is awaiting the final closure documents from the EPA prior to terminating the license. This recommendation is closed.

## 3.0 COMMON PERFORMANCE INDICATORS

IMPEP identifies five common performance indicators to be used in reviewing both NRC Regional and Agreement State 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) Response to Incidents and Allegations.

### 3.1 Technical Staffing and Training

Issues central to the evaluation of this indicator include the Department'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 Department's questionnaire responses relative to this indicator, interviewed Department management and staff, reviewed job descriptions and training records, and considered any possible workload backlogs.

The Department devotes a total of 13.7 full time equivalent (FTE) to the radioactive materials program, including administration. A total of 7.3 FTE is allotted to the Surveillance Division's radioactive materials compliance and emergency response programs. Inspection staff members are based out of six regional offices, including the Baton Rouge compliance field office. Inspection staff also perform other duties including x-ray and non-radiological inspections for which the Department is responsible. The radioactive materials licensing staff has been allotted 4.4 FTE. Radioactive materials licensing is performed by the Permits Division in the Baton Rouge main office. The remaining FTE is allotted for administration or distributed among the other Divisions.

Three staff members left the Department during the review period and four staff members were hired during the same period. The Department currently has no vacant positions, although one inspector was called up for active military duty in May 2003, and his position is being held for his return. Staff members from other Regions are handling inspections in his Region while he is away. The review team concluded that staffing is adequate for the radioactive materials program. The review team noted that the Department had stable funding during the review period due to dedicated revenue from licensee fees.

The qualifications of the staff were determined from the questionnaire, training records, and interviews of personnel. The staff are well qualified from an education and experience standpoint. All staff have at least a Bachelor's degree in the sciences, or equivalent training and experience. All experienced technical staff members have taken the NRC courses deemed appropriate for their tasks. New staff plan to attend appropriate core courses when available.

In general, inspection and licensing staff become qualified to complete x-ray tasks and are then trained to perform radioactive materials tasks, starting with the most simple and working towards the more complex. During the review period, the Department took the initiative to take all staff with experience and training in x-ray tasks and gradually train them to complete radioactive materials tasks. The Permits Division has a training and qualification program that sets forth expected training and experience necessary to complete various types of license actions. However, the Surveillance Division does not have such a program. Prior to the July 1999 reorganization, a training and qualification program was used by inspection staff. After the reorganization, a new training and qualification program was drafted, but was never finalized. Although the review team did not find any issues with inspection staff training and qualifications, the review team believes that a documented training and qualification program is needed, especially in light of the Department's policy of gradually training existing staff to perform radioactive materials inspections. The review team recommends that the Surveillance Division finalize their training and qualification program for radioactive materials inspectors, including the qualifications required to complete independent inspections of various license types.

Louisiana does not have a radiation oversight board. No evidence of any conflict of interest issues were identified.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Louisiana's performance with respect to the indicator, Technical Staffing and Training, was satisfactory.

### 3.2 Status of Materials Inspection Program

The team focused on five factors in reviewing this indicator: inspection frequency, overdue inspections, initial inspection of new licensees, the timely dispatch of inspection findings to licensees, and the performance of reciprocity inspections. The evaluation is based on the Department's questionnaire response relative to this indicator, data gathered independently from the Department's licensing and inspection data tracking system, the examination of completed licensing and inspection casework, and interviews with managers and staff.

In September 2002, the Department adopted the inspection frequencies for various types of material licenses listed in NRC Inspection Manual Chapter (IMC) Temporary Instruction 2800/033, "Revised Materials Inspection Program." The staff uses TEMPO, a database management system, for their tracking system. The data is maintained on a network and is available to all staff. The Department staff acknowledged that they were still in transition for implementing the inspection intervals in NRC's Temporary Instruction. The review team verified that inspection intervals for various types of material licenses are generally at least as frequent as, or more frequent than, similar license types listed in NRC IMC 2800. Specifically, the Department inspects nuclear medicine and well logging licensees more frequently than NRC.

In their response to the questionnaire, the Department indicated that no routine inspections were overdue by more than 25 percent of the NRC frequency. The Department also indicated that four initial inspections were conducted overdue during the review period and that two initial inspections had not been conducted and were currently overdue. The team reviewed lists of information for all inspections conducted and all new licenses issued during the period.

The review team found it difficult to review the Department's reports from TEMPO. Interpretation of the data required coordination and comparison of several reports from more than one database. The review team discussed the results with several staff members in order to verify the findings. Of the 84 routine inspections sampled, the review team determined that four routine inspections were conducted overdue during the review period, from one to 21 months overdue.

With respect to initial inspections of new licensees, the review team compared a list of new licenses issued during the period with a list of all inspections conducted during the period. The review team confirmed the results through review of records in TEMPO and by coordination with Department staff. Of the 69 new licenses sampled, the review team determined that five new licensees had not been inspected and were overdue at the time of the review, from one to 21 months overdue. In addition, the review team identified 19 new licensees that were inspected overdue in the review period, from five days to 26 months overdue. This represents 35 percent of the new licenses sampled that had not been inspected within the 12 month interval after license issuance. The review team recommends that the Department develop and implement a process for ensuring that all new licensees receive a timely initial inspection.

Through discussions with Department staff, the review team believes that there are two root causes that contributed to the deficiency involving the conduct of initial inspections. First, the TEMPO database is cumbersome to use and is not an effective management tool for Department staff. Department staff appear to have difficulties finding information in the database. For example, each activity is linked to an agency interest (AI) number that is site specific. A single licensee may have multiple AI numbers associated with physical relocations. This makes it difficult to determine when a licensee is due for inspection. The Department's performance matrix goal for inspections is to inspect 50 percent of the Department's licensees each year. The goal does not specify any categories of licensees to be inspected, and it does not appear that the Department has a mechanism to monitor inspections based on the license category or use. Department staff have developed their own management tools that appear to be effective for monitoring routine inspections, but ineffective for monitoring initial inspections of new licensees. The second root cause identified by the review team is a communications breakdown. The Permits Division issues licensing actions and the Surveillance Division conducts the inspection, but a communication breakdown exists somewhere in the new license/initial inspection process. The review team and the Senior Advisor discussed the benefits of having a periodic counterpart meeting with all Department staff that conduct radioactive materials tasks.

Overall, approximately 18 percent of routine core and initial inspections were conducted overdue during the review period or were overdue at the time of the review. During the onsite review, the review team's data analysis identified problems with the Permits Division's tracking of inspections, including licensees in need of an inspection that Department staff were not aware were overdue for an inspection. The review team recommends that the Department review their existing databases, identify all routine and initial inspections that need to be conducted, and complete those inspections.

The timeliness of the issuance of inspection findings was evaluated during the inspection casework review. Of the 19 inspections reviewed, all inspection findings were transmitted to the licensee at the end of the inspection.

During the review period, the Department processed approximately 400 reciprocity requests per year. The review team determined that the Department met and exceeded NRC's current criteria of inspecting 20 percent of candidate core licensees operating under reciprocity for the entire review period.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Louisiana's performance with respect to the indicator, Status of Materials Inspection Program, was satisfactory with recommendations for improvement.

### 3.3 Technical Quality of Inspections

The review team evaluated field interview forms, inspection reports, and enforcement referrals for 19 radioactive materials inspections conducted during the review period. The review team also interviewed radiation compliance inspectors to clarify casework information. The casework reviewed included inspections conducted by eight current and one former Department radiation compliance inspectors, and covered inspections of various types including manufacturing and distribution, medical, mobile nuclear medicine, well logging and subsurface tracers, industrial radiography, and nuclear pharmacy. Appendix C lists the inspection casework files reviewed for completeness and adequacy with case-specific comments.

The inspection procedures utilized by the Department are outlined in "Standard Operating Procedures for Compliance Inspections Conducted by Office of Environmental Compliance/Surveillance Personnel" and are generally consistent with the inspection guidance outlined in IMC 2800. A Field Interview Form is completed by the inspector at the conclusion of each inspection. This form documents the inspection findings and is signed by the licensee. The inspector writes a narrative inspection report for the Department's internal files. Inspection reports are reviewed by supervisors, generally within one to three weeks. However, because of the Department's overall organization, the supervisors are not knowledgeable in health physics or radiation safety. Therefore, additional technical reviews are conducted on most inspection reports by senior staff members with a background in health physics and/or radiation safety. If violations are noted, a copy of the Field Interview Form and the inspection report are routed through the Enforcement Division for potential escalated enforcement.

Based on casework, the review team noted that the routine inspections covered all aspects of the licensees' radiation programs, with the exception of Sealed Source and Device (SS&D) issues. Although the Department does not utilize specific inspection procedures for each license type, the review team found that inspection reports were generally thorough, complete, consistent, and of good quality, with sufficient documentation to ensure that licensee's performance with respect to health and safety was acceptable. The documentation supported violations, recommendations made to the licensee, unresolved safety issues, and discussions held with the licensee during exit interviews.

The review team determined that the radiation compliance inspectors did not evaluate any SS&D information during inspections. There was no determination that products were manufactured in accordance with the SS&D registry sheets, that changes were made in materials or processes described in the SS&D registry sheets, that any product lines were

discontinued, and that quality controls were in place for sources and/or devices. The communications breakdown between the Permits Division and the Surveillance Division that may be a root cause of this deficiency was also discussed in Section 3.2 . The review team recommends that the Department inspect implementation of SS&D authorizations during routine inspections.

After the on-site review, the Department added SS&D registrations as a condition to all their distribution licenses to provide a mechanism to enforce commitments referenced in SS&D registrations.

During the review period, supervisory accompaniments were not accomplished for all of the radiation compliance inspectors on an annual basis. Four out of nine inspectors were not accompanied by their supervisors in calendar year (CY) 2001 and five out of nine inspectors were not accompanied by their supervisors in CY 2002. In CY 2003, eight out of nine inspectors were accompanied by their supervisors on at least one inspection. The one inspector who was not accompanied in CY 2003 was activated for military duty and not available for a large part of CY 2003. Although the required accompaniments were accomplished in CY 2003, the Department does not appear to have an individual responsible for oversight of all the radiation compliance inspectors and a process for accomplishing the required supervisory accompaniments of these inspectors.

The team noted that other than the annual inspector accompaniments, the inspectors are isolated, particularly in the Lake Charles office. Through discussions with staff members, the review team noted that inspectors have limited opportunities to discuss their findings or other issues they may encounter during inspection activities. The review team believes that because of the lack of centralized oversight of the radiation compliance program and the lack of direct supervision by individuals knowledgeable in radiation safety, annual accompaniments by qualified individuals are important to ensure the continued consistency and quality of inspections and inspection reports. The review team recommends that the Department develop and implement a process for conducting annual accompaniments of all radiation compliance inspectors by qualified individuals.

A member of the review team accompanied three Department inspectors during the weeks of August 25 and September 9, 2003. The accompaniments included inspections at medical institutions licensed for diagnostic nuclear medicine and radiopharmaceutical therapy, and industrial radiographers. The accompaniments are identified in Appendix C.

During accompaniments, the inspectors demonstrated appropriate inspection techniques and knowledge of the regulations. The inspectors were prepared for their review of the licensees' radiation safety program. The inspections were adequate to assess radiological health and safety at the licensed facilities. It was noted however, that the inspections were more record review driven, rather than performance based. The inspectors relied heavily on inspection checklists in the performance of the inspection. Although no health and safety issues were identified, the benefits of including a performance and risk-based inspection approach rather than the predominantly record review inspection method was discussed with Department staff and management.

It was noted that the Department has an adequate supply of survey instruments to support the current inspection program. Appropriate, calibrated survey instrumentation such as Geiger Mueller (GM) meters, scintillation detectors, ion chambers, and micro-R meters were observed

to be available. The instruments are calibrated at least annually by a commercial calibration service. The Division of Laboratory Services radiological laboratory provides support to the program through radiological analyses of samples taken by inspectors during inspections.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Louisiana's performance with respect to the indicator, Technical Quality of Inspections, was satisfactory.

### 3.4 Technical Quality of Licensing Actions

The review team interviewed license reviewers, evaluated the licensing process, and examined licensing casework for 16 specific licenses. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequate facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of the license conditions, and overall technical quality. The casework files were also reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, product certifications, supporting documentation, consideration of enforcement history, pre-licensing visits, supervisory review as indicated, and proper signatures. The files were checked for retention of necessary documents and supporting data.

The licensing casework was selected to provide a representative sample of licensing actions which were completed during the review period. The cross-section sampling focused on the new licenses, amendments, renewals, and licenses terminated during the review period. The sampling included the following type of licenses: well logging, x-ray fluorescence, service providers, industrial radiography, portable level gauges, fixed gauges, decay-in-storage, analytical laboratory, source manufacturers/distributor, radiopharmacy, mobile nuclear medicine, medical-outpatient-diagnostic only, and medical institution. Licensing actions reviewed included six new licenses, three renewals, 19 amendments, and three termination files. A listing of the casework licenses evaluated with case specific comments can be found in Appendix D.

Overall, the review team found that the licensing actions were thorough, complete, consistent, and of high quality with health and safety issues properly addressed. License tie-down conditions were stated clearly, backed by information contained in the file, and inspectable. The licensee's compliance history was taken into account when reviewing renewal applications and amendments. The exemptions noted in the questionnaire responses were determined to be appropriate and well documented by license conditions, however the exemptions for the industrial radiography pipeliners expired on October 31, 2003. A review of termination actions found that terminated licensing actions were well documented, showing appropriate transfer records or appropriate disposal methods and records, confirmatory surveys, and survey records.

The administrative staff receives and routes all licensing actions to the appropriate permit writer based on license type. The permit writer enters the information into the Department's database, TEMPO. The status of all actions is also tracked in a license database maintained by the Permits Division. All correspondence is reviewed and signed by the Permit Supervisor. When the permit writer completes a licensing action, a second technical review is performed by the Permits Supervisor. The Permits Manager conducts an administrative review before forwarding the action to the Assistant Secretary of the Department for signature. While the Permits

Division does not use templates to generate correspondence and licenses, each permit writer maintains a standard format for each license type.

Licenses are initially issued with a five-year term. After the five-year term, licensees are allowed to submit a letter stating the program is unchanged, or discuss minor changes. This is considered a simple renewal and is issued with a four-year term. Licensees are required to submit a complete renewal application every 10 years to maintain current information in the file. The Permits Division utilizes licensing guides based on NRC licensing guides (NUREG-1556 series), as appropriate.

The Department has been certifying industrial radiographers in accordance with the State's regulations. The Department administers the radiographer certification examination developed by the Texas Department of Health and offers testing every other month for 50 - 125 candidates.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Louisiana's performance with respect to the indicator, Technical Quality of Licensing Actions, was satisfactory.

### 3.5 Response to Incidents and Allegations

In evaluating the effectiveness of the Department's actions in responding to incidents, the review team examined the Department's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Louisiana in the "Nuclear Material Events Database" (NMED) against those contained in the Louisiana files, and evaluated the casework and supporting documentation for 12 materials incidents. A list of the incident casework examined, with case-specific comments, is included in Appendix E. The team also reviewed the Department's response to three allegations involving radioactive materials referred to the Department, by NRC, during the review period. By their definition, the Department received no other allegations during the review period in addition to the three referred by the NRC.

The review team discussed the Department's incident and allegation procedures, file documentation, the State's equivalent to the Freedom of Information Act, NMED, and notification of incidents to the NRC Operations Center, with the program managers and selected staff.

Incidents and allegations are investigated by staff from the Surveillance Division. It is the policy of the Department to investigate every allegation, complaint, and reported incident related to ionizing radiation activities. Department staff do not differentiate between incidents and allegations investigations. All event reports are forwarded to the Inspection Coordinator in the Surveillance Division. The Coordinator reviews all available data and assigns the case to an inspector who has received sufficient training to review the specific type of event. All investigation reports and documentation are archived in the appropriate license or correspondence file, and archived in the Department's electronic document management system.

The review team found that the Department's responses to incidents and allegations were complete and comprehensive. Initial responses were prompt and well-coordinated. The level of effort was commensurate with the health and safety significance of the event. Inspectors were dispatched for on-site investigations when appropriate and the Department took suitable

enforcement action when indicated. The review team found the documentation of the incidents and allegations to be consistent.

During the review period, each incident meeting the criteria for reporting to the NMED system was reported to NRC and the NMED contractor for entry into NMED, as required. INEEL communicates directly with the Department's staff, via e-mail, to request additional information and/or clarification of existing data. The Department has an NMED coordinator who manages the Department's submissions to NMED.

The Department received three allegations during the review period. The team's evaluation indicated that the Department took prompt and appropriate action in response to the concerns raised. All communication with the Department is considered public record under Louisiana's Open Records Law. Any alleger requesting anonymity is informed that every effort will be made to protect his/her identity, but cannot be guaranteed. All investigations involving potential criminal activity are immediately brought to the attention of the Department's senior management staff for a determination if the case should be forwarded to the Enforcement Division for action.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Louisiana's performance with respect to the indicator, Response to Incidents and Allegations, was satisfactory.

## 4.0 NON-COMMON PERFORMANCE INDICATORS

IMPEP identifies four non-common performance indicators to be used in evaluating Agreement State programs: (1) Legislation and Program Elements Required for Compatibility; (2) Sealed Source and Device Evaluation Program; (3) Low-Level Radioactive Waste Disposal Program; and (4) Uranium Recovery Program. Louisiana's Agreement does not cover a uranium recovery program, so only the first three non-common performance indicators were applicable to this review.

### 4.1 Legislation and Program Elements Required for Compatibility

#### 4.1.1 Legislation

Louisiana became an Agreement State in 1967. Along with their response to the questionnaire, the State provided the review team with the opportunity to review copies of legislation that affects the radiation control program. Legislative authority to create an agency and enter into an agreement with the NRC is granted in the Louisiana Nuclear Energy and Radiation Control Law, Chapter 6, R.S. 30:2101-2134. The Department is designated as the State's radiation control agency. The review team noted that no legislation affecting the radiation control program was passed since being found adequate during the previous review, and found that the State legislation remains adequate.

#### 4.1.2 Program Elements Required for Compatibility

The Regulations for Control of Radiation, found in Part XV, Radiation Protection, 2002 Edition of the Louisiana Environmental Regulatory Code, apply to all ionizing radiation, whether emitted from radionuclides or devices. Louisiana requires a license for possession, and use, of all

radioactive material including naturally occurring materials, such as radium, and accelerator-produced radionuclides.

The review team examined the procedures used in the Department's regulatory process and found that the process takes approximately six months after preparation of a draft rule. Proposed rules are submitted to the Legislative Fiscal Office for consideration and approval to proceed with public comment. Public notice of proposed rule revisions is made and a 30-45 day public comment period, including a public hearing is conducted. Proposed rules are sent to NRC for a compatibility ruling. After resolution of comments and the State Legislative Oversight Committee's approval, final draft rules are sent to the Louisiana Register for adoption. Final rules are then sent to licensees and the NRC. The Department also has the authority to issue legally binding requirements (e.g., license conditions) in lieu of regulations until compatible regulations become effective.

The review team evaluated the Department's response to the questionnaire, 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 NRC Office of State and Tribal Programs Regulation Assessment Tracking System. All regulations required to be adopted are currently in effect. However, the State did not submit one rule amendment during the review period, "Transfer for Disposal and Manifests; Minor Technical Conforming Amendment," (63 FR 50127) that became effective November 20, 1998. The State did adopt equivalent rules in November 1998 that meet the requirements of this amendment. The team's preliminary review of this amendment found the amendment compatible. The State was advised to send this amendment to the NRC for official documentation and review. The State agreed to this plan of action.

The team identified the following regulation changes and adoptions that will be needed in the future, and the State related that the regulations would be addressed in upcoming rulemaking or by adopting alternate legally binding requirements:

- "Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material", 10 CFR 30, 31 and 32, amendment 65 FR 79162, that became effective on February 16, 2001.

- "Revision of the Skin Dose" 10 CFR 20, amendment 67 FR 16298, that became effective on April 5, 2002.

- "Medical Use of Byproduct Material, 10 CFR 20, 32,and 35, amendment 67 FR 20249, that became effective on April 24, 2003.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Louisiana's performance with respect to the indicator, Legislation and Program Elements Required for Compatibility, was satisfactory.

## 4.2 Sealed Source and Device (SS&D) Evaluation Program

In assessing the Louisiana SS&D evaluation program, the review team examined the information provided in response to the IMPEP questionnaire. The team evaluated all of the new and four of the seven amended SS&D registry sheets issued during the review period, and

the supporting document files. The team also evaluated the use of guidance documents and procedures, and interviewed the staff currently conducting SS&D evaluations.

4.2.1 Technical Quality of the Product Evaluation Program

The review team evaluated five of the eight SS&D evaluations the Department completed during the review period. The cases were representative of the Department's licensees and SS&D evaluation personnel. The cases were completed between March 2000 and October 2003 and specific comments are found in Appendix F.

The SS&D evaluators reported that they used the guidance in NUREG-1556, Volume 3. The team's review of the casework, and interviews with the staff, confirmed that the State followed the NRC SS&D guidance. The Department does not maintain official hard copy of files. All documents are scanned and placed in the Department-wide image retrieval program, TEMPO. This includes all letters, notes, blueprints, registrations, photographs, engineering drawings, etc. The review of this indicator was difficult due to the fact that they transitioned to this system starting at the beginning of the review period. This system has evolved over the last four years and the way documents have been stored has been inconsistent. These inconsistencies cause difficulty in locating all electronic records. Some electronic records were identified by the TEMPO database but were not retrievable. SS&D reviewers retained hard copies of selected documents, and these registration files contained the correspondence, photographs, engineering drawings, radiation profiles, and results of tests conducted by the applicants. Appropriate standards, Regulatory Guides, and NRC SS&D training workshop references were available and used when performing SS&D reviews.

The depth and scope of the SS&D evaluations during the review period were good. The evaluation documentation found in staff members' files was also good. The team noted that the SS&D licensees generally submitted applications that were complete and of high quality. The SS&D evaluators needed to request little additional information. Current SS&D evaluators indicated that the licensees promptly supplied the information that they requested. The review team did not identify any missed safety issues in the reviewed evaluations. However, minor technical errors were noted, as detailed in Appendix F.

The State handles proprietary information by placing it in separate files. During the last IMPEP review, some of this information was misplaced. During this review, the staff could produce all files.

During the onsite review, the team noted that SS&D registrations were not listed on the distributor's license. The Department does not have regulations specific to SS&D and the documents listed in reference section of the SS&D registry sheets were not included in the license. The Permits Supervisor and the senior SS&D reviewer indicated that the SS&D registry sheets were not included as part of the license. After the onsite review, the Department added the SS&D registrations as a condition to all of their distribution licenses. The registry sheets were provided to the review team. The team noted that this new license condition provides a mechanism to enforce commitments referenced in SS&D registrations.

4.2.2 Technical Staffing and Training

Since the last review, one qualified SS&D evaluator left the program. While this individual is no longer in the Permits Section, she is still part of the Department and is available for assistance if

needed by current evaluators. The Department has four other qualified evaluators who perform SS&D evaluations as secondary duties due to the limited number of SS&D evaluation requests. At the time of the review, the Department had no one permanently assigned to SS&D evaluations as a primary duty.

The review team evaluated the qualifications of the three new individuals authorized and currently performing SS&D evaluations. One has a Physics degree; the other has a degree in Radiation Physics with extensive experience with HDR devices and their use; and the third has a Biology degree. All have substantial regulatory experience and all have attended the NRC SS&D training.

### 4.2.3 Evaluation of Defects and Incidents Regarding SS&D

There were no new defects or incidents involving SS&D of Louisiana registry. There was one allegation of a source incompatibility with another manufacturer's device. The Department provided a timely and adequate response in the investigation and resolution of the allegation.

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

## 4.3 Low-Level Radioactive Waste (LLRW) Disposal Program

In 1981, the NRC amended its Policy Statement, "Criteria for Guidance of States and NRC in Discontinuance of NRC Authority and Assumption Thereof by States Through Agreement" to allow a State to seek an amendment for the regulation of LLRW as a separate category. Those States with existing Agreements prior to 1981 were determined to have continued LLRW disposal authority without the need of an amendment. Although Louisiana has such disposal authority, NRC has not required States to have a program for licensing a disposal facility until such time as the State has been designated as a host State for a LLRW disposal facility. When an Agreement State has been notified or becomes aware of the need to regulate a LLRW disposal facility, 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 Louisiana. Accordingly, the review team did not evaluate this indicator.

# 5.0 SUMMARY

As noted in Sections 3 and 4 above, the review team and the MRB found Louisiana's performance to be satisfactory for six performance indicators, and satisfactory with recommendations for improvement for the performance indicator, Status of Materials Inspection Program. Accordingly, the review team recommended and the MRB concurred in finding the Louisiana Agreement State program to be adequate to protect public health and safety and compatible with NRC's program. Based on the results of the current IMPEP review, it was agreed that the next full review should be in approximately four years. However, due to the communications and oversight issues highlighted in recommendations made in Sections 3.2 and 3.3, the review team recommended and the MRB agreed that a periodic meeting take place with the State approximately one year from the IMPEP review.

Below is a summary list of recommendations, as mentioned in earlier sections of the report, for evaluation and implementation, as appropriate, by the State.

RECOMMENDATIONS

1. The review team recommends that the Surveillance Division finalize their training and qualification program for radioactive materials inspectors, including the qualifications required to complete independent inspections of various license types. (Section 3.1)

2. The review team recommends that the Department review their existing databases, identify all routine and initial inspections that need to be conducted and complete those inspections. (Section 3.2)

3. The review team recommends that the Department develop and implement a process for ensuring that all new licensees receive a timely initial inspection. (Section 3.2)

4. The review team recommends that the Department inspect implementation of SS&D authorizations during routine inspections. (Section 3.3)

5. The review team recommends that the Department develop and implement a process for conducting annual accompaniments of all radiation compliance inspectors by qualified individuals. (Section 3.3)

APPENDIX A

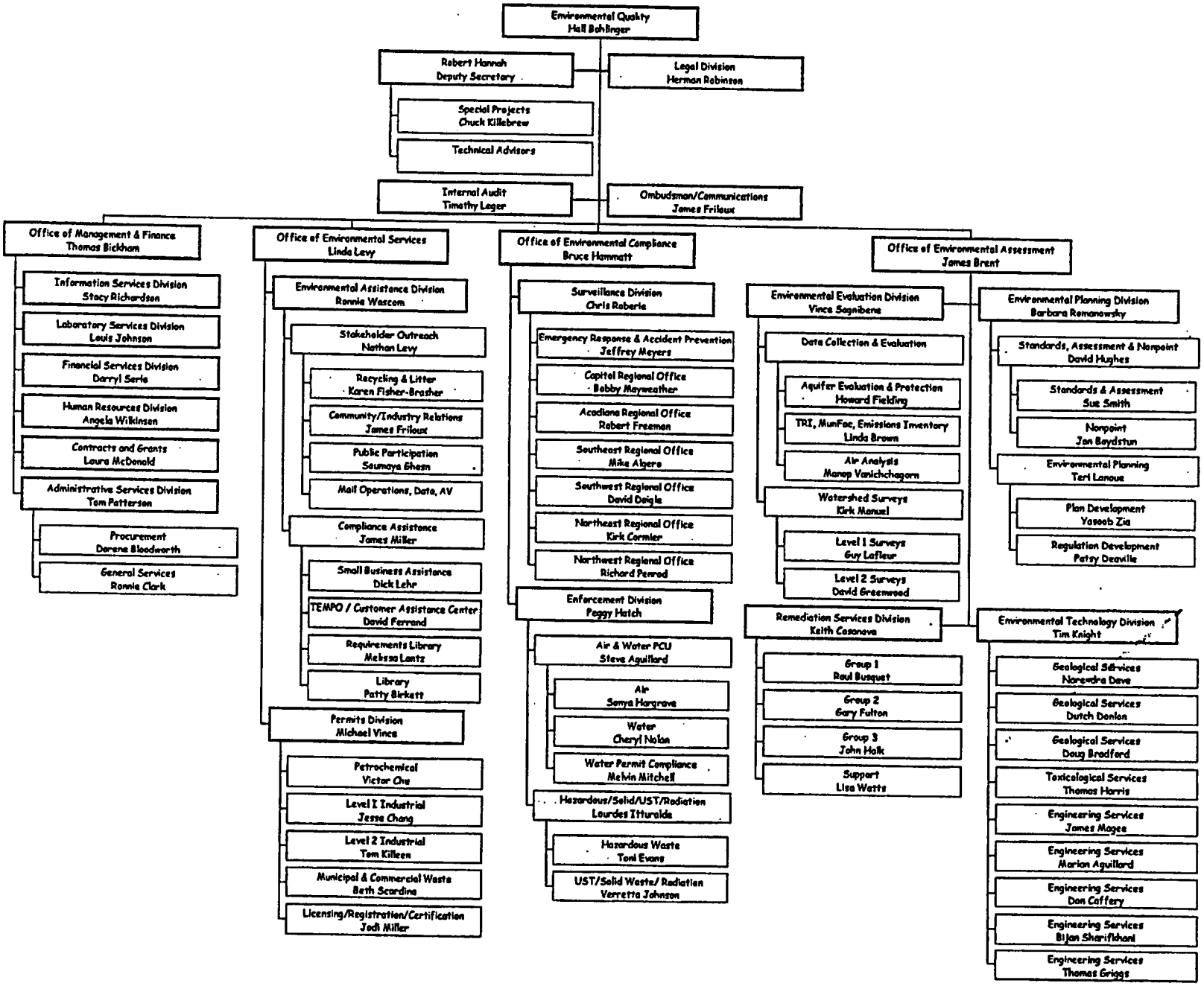
## IMPEP REVIEW TEAM MEMBERS

| Name | Area of Responsibility |
|---|---|
| Lance Rakovan, STP | Team Leader<br>Technical Staffing and Training |
| Vivian Campbell, Region IV | Status of Materials Inspection Program<br>Technical Quality of Licensing Actions |
| Linda McLean, Region IV | Inspector Accompaniments |
| Christi Maier, Region IV | Technical Quality of Inspections |
| John Zabko, STP | Response to Incidents and Allegations<br>Legislation and Program Elements Required for Compatibility |
| Michael Stephens, Florida | Sealed Source and Device Evaluation Program |

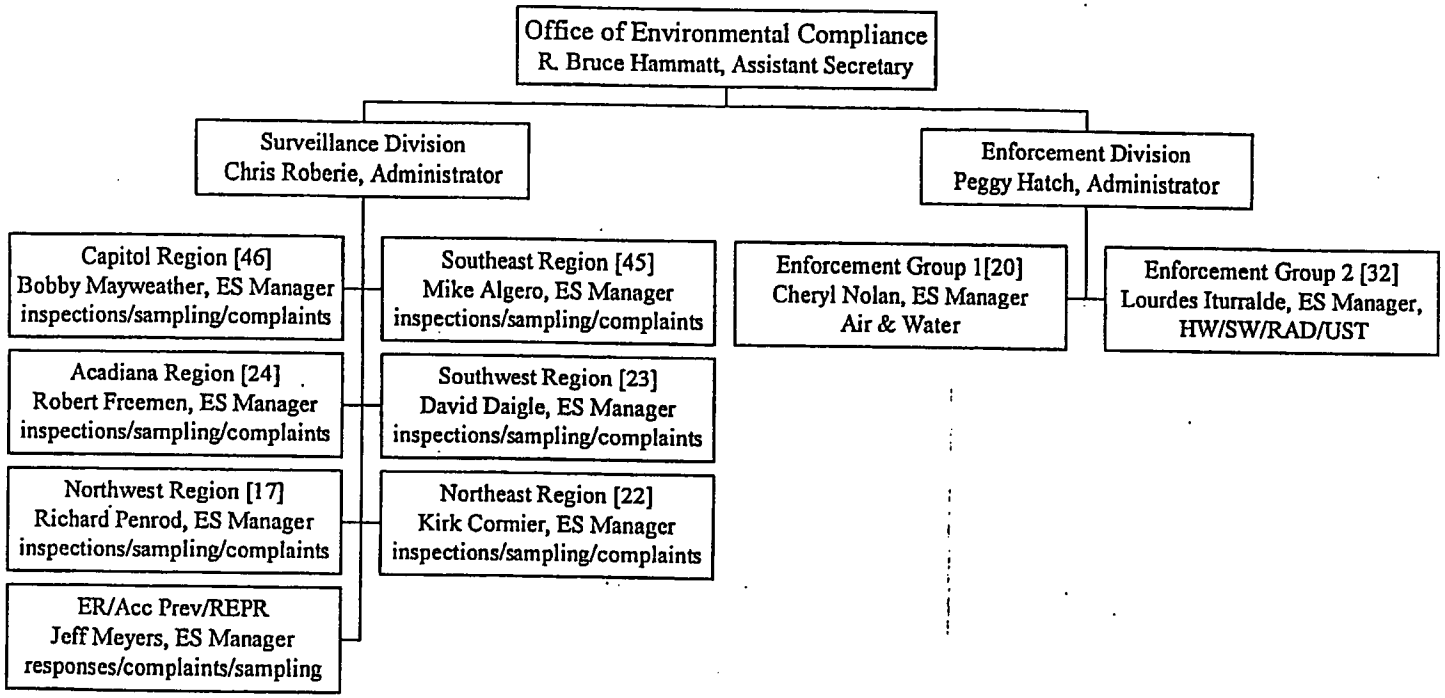
APPENDIX B
LOUISIANA ORGANIZATION CHARTS

ML033360456

# DEQ Organizational Chart
updated 10/1/03

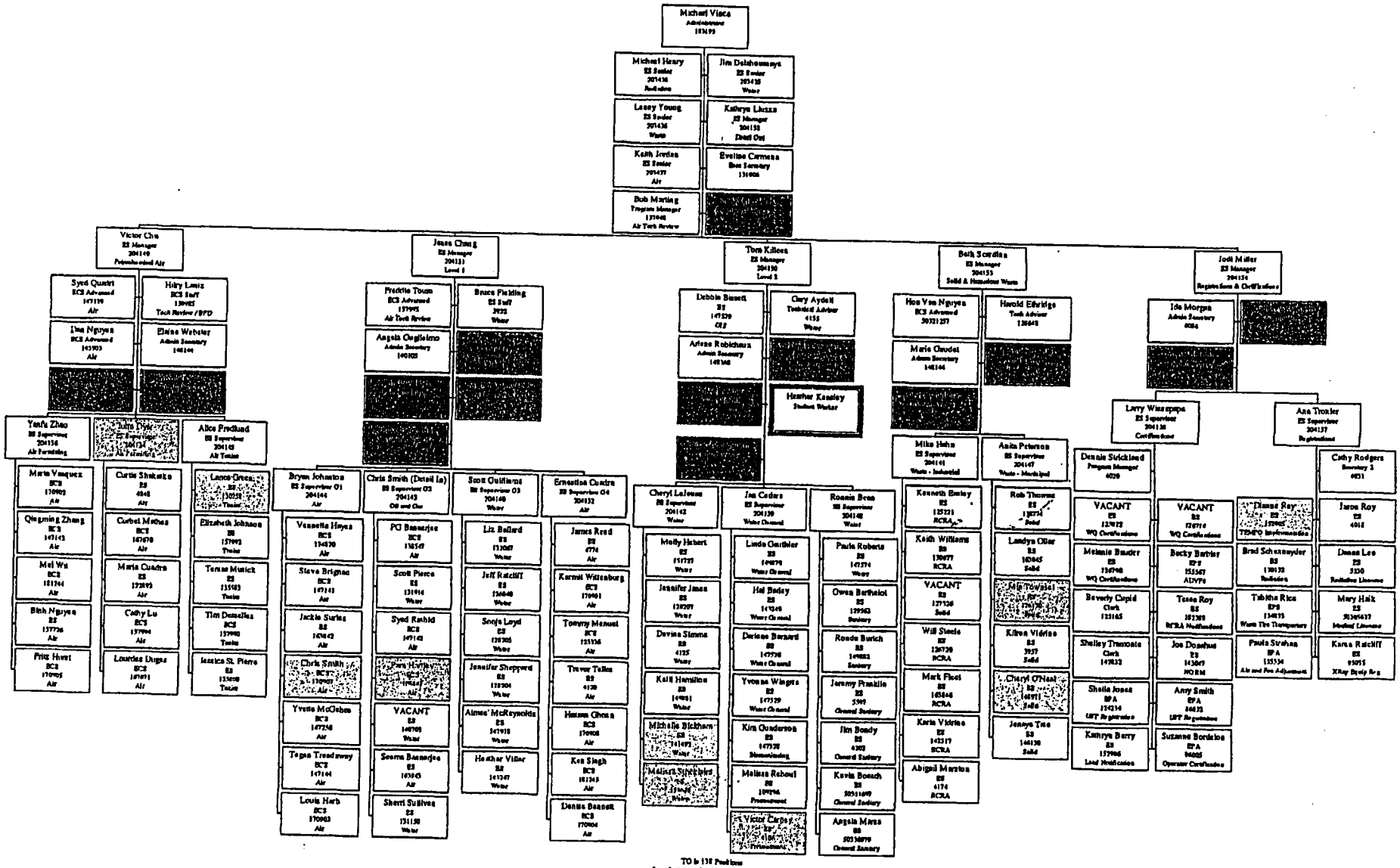


# Louisana Department of Environmental Quality
## Office of Environmental Compliance




as of 08/25/03

September 2, 2003




TO is 138 Positions
Blue Indicates Quality Assurance Staff
Green Indicates TEMPO Leaders
Yellow Indicates VACANT Positions

LIST OF APPENDICES AND ATTACHMENTS


| | |
|---|---|
| Appendix A | IMPEP Review Team Members |
| Appendix B | Louisiana Organization Charts |
| Appendix C | Inspection Casework Reviews |
| Appendix D | License Casework Reviews |
| Appendix E | Incident Casework Reviews |
| Appendix F | Sealed Source and Device Casework Reviews |
| Attachment | December 12, 2003, Letter from L. Hall Bohlinger, Secretary, Department of Environmental Quality |

**ATTACHMENT**

December 12, 2003 Letter from L. Hall Bohlinger
Louisiana's Response to Draft IMPEP Report

ML033630731

# State of Louisiana

## Department of Environmental Quality

M. J. "MIKE" FOSTER, JR.
GOVERNOR

L. HALL BOHLINGER
SECRETARY

03 DEC 23 AM 9: 11

STP

December 12, 2003

U.S. Nuclear Regulatory Commission
Mr. Lance Rakovan, Health Physicist
Office of State and Tribal Programs
Washington, D.C. 20555-0001

RE: 2003 IMPEP Review

Dear Mr. Rakovan:

We are in receipt of your draft Integrated Materials Performance Evaluation Program (IMPEP) report which documents the team's preliminary findings from the October 27-31, 2003 review. We are pleased to learn that the team's proposed recommendations are that the Louisiana Agreement State program be found adequate to protect public health and safety and compatible with NRC's program. It is our understanding that these are the highest ratings that can be awarded by the IMPEP team.

We agree that the review team's recommendations for improvement will further enhance our effectiveness in the area of radiation protection. We have addressed each and every recommendation, and now have plans in place to implement improvements; specifics are covered in the enclosures.

We look forward to the Louisiana Management Review Board (MRB) meeting, and plan to at least have Michael Henry, State Liaison Officer, attend the meeting in Washington, D.C. I also plan to attend if scheduling permits. Other Louisiana staff will plan to participate via audio or video conferencing.

In you have any questions, or require assistance in scheduling the MRB meeting, do not hesitate to call me or Michael Henry, SLO, who is serving as Radiation Program Director for this review.

Sincerely,

Hall Bohlinger

L. Hall Bohlinger, Sc.D.
Secretary

STP-002 Template
RIDS: SP01

OFFICE OF THE SECRETARY P.O. BOX 4301 BATON ROUGE, LOUISIANA 70821-4301
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CONTAINS SOYOIL

**NRC IMPEP Review Draft Report – Surveillance Responses**

**Recommendations**

1. Surveillance Division should finalize their training and qualification program for RAM inspectors, including the qualifications required to complete independent inspections of various license types. (3.1)

Surveillance Response: please see attachment 1 that outlines courses to be taken and inspector verification to conduct independent inspections.

2. Department needs to identify all routine and initial inspections that need to be conducted and complete those inspections. (3.2)

Surveillance Response: Surveillance maintains licensee lists in each region of RAM inspections that need to be conducted. The list contains the license type and due date for each licensee. The department completes all licensee inspections as they become due for inspection. Last year (FY02-03) there was a concerted effort by Surveillance to bring all licensees up to date. This was possible because Registrations provided us with a licensee list – something that had not been possible in the previous 2 years due to loss of licensee data during upload to the TEMPO system. Registrations had to start over, entering the licensee data into TEMPO, which allowed them to provide us with a new list of licensees for the FY02-03 inspection year. Regions noted that there were several licensees that were past due or were new licensees and scheduled these facilities for inspections. Surveillance now receives a licensee list from Registrations annually, in May of each year. The regions compare the new lists to the ones they are currently using to ensure that all the licensees are identified. This allows Surveillance to verify and schedule all licensees that are due for inspection in the coming inspection year.

3. The Department should develop and implement a process for ensuring that all new licensees receive a timely initial inspection. (3.2)

Surveillance Response: Surveillance and Registrations met and have developed a process to ensure that the regions are notified when new licenses are issued. (See attachment 2)

4. The Department should inspect SS&D authorizations during routine inspections.

Surveillance Response: There are 3 facilities in Louisiana with SS&D authorizations. Surveillance will include this element as part of the routine inspections at those facilities.

5. The Department should develop and implement a process for conducting annual accompaniments of all RAM inspectors by qualified individuals. (3.3)

Surveillance Response: Two qualified individuals, Joe Noble and Richard Penrod, will perform the supervisory accompaniments of the RAM inspectors.

## Surveillance RAM Training Courses

| Course Sequence | CORE COURSES | Class Fees/Location ** | Training Year |
|---|---|---|---|
| 1 | Inspection Procedures (G-108): 5 days | $0/ KS or TN | 1 |
| 2 | Inspecting for Performance Materials version (G-304): 3 days | $265/ TN or MD | 1 |
| 3 | Introductory Health Physics (H-117): 5 days | $0/ MD | 1 |
| 4 | Diagnostic and Therapeutic Nuclear Medicine (H-304): 5 days | $2160/ TX | 2 |
| 5 | Transportation of Radioactive Materials (H-308): 5 days | $745/ TN | 2 |
| 6 | Teletherapy & Brachytherapy (H-313): 5 days | $2140/ TX | 3 |
| 7 | Safety Aspects of Well Logging (H-314): 5 days | $0/ TX | 3 |
| 8 | Safety Aspects of Industrial Radiography (H-305): TBD | $656/ LA | 3, 4 |
| 9 | Health Physics Technology (H-201): 2 weeks concurrent | $0/ TN | 3, 4 |
| 10 | Multi-Agency Radiation Survey and Site Investigation (H-121): 3 days | $1125/ MD | 3, 4 |
| | | | |
| | **Optional Courses [as travel funds allow]** | | |
| | Environmental Monitoring for Radioactivity (H-111): 5 days | $1700/ TN | |
| | Root Cause/Incident Investigation Workshop (G-205): 5 days | $1700/ TN or MD | |
| | Air Sampling for Radioactive Materials (H-119): 5 days | $1700/ TN | |
| | Applied Health Physics (H-109) [5 week course] | $8500/ TN | |
| | Internal Dosimetry and Whole Body Counting (H-312) | not available at this time | |

** does not include travel or lodging costs

NOTE: Classes will be taken in the order listed above. Some flexibility in the order the classes will be taken for years 2, 3 and 4 is necessary due to class and funding availability. The determination that an inspector has the appropriate qualifications to conduct independent inspections of the various license types will be verified and approved by a qualified senior staff person who conducts the supervisory accompaniments semi-annually.

November 20, 2003

**RADIATION PROGRAM INTEROFFICE PROCESSES:**

**DOCUMENT FLOW BETWEEN REGISTRATIONS/OES AND SURVEILLANCE/OEC**

**A. New Radiation License Hand-off from Permits to Surveillance**

1. Permits places copy of new license and the accompanying DRC-11 in a box located in the Radiation Registrations section (1st floor) labeled with Joe Noble's name, to be picked up by Joe or Scott Blackwell. Ann Troxler will email Joe and Scott that a new license has been placed in the box.

2. Joe or Scott sends the license and DRC-11 via messenger mail, to the appropriate region, to the point of contact designated by the regional manager.

3. Joe or Scott will then send an email to the regional manager and copy both the point of contact and Betty B. that the new license has been sent via messenger mail.

4. Betty B. starts the 90 day clock and contacts the manager and point of contact within 60 days to ensure that the inspection has been scheduled and/or the licensee has been contacted. Surveillance has 90 days from receipt of license notification to conduct an inspection – PCE or FCE at the licensee's place of business.

**B. Reciprocity Notification Hand-off from Permits to Surveillance**

1. Brad in Registrations emails Joe Noble and Scott Blackwell a scanned copy of the Reciprocity notification.

2. Joe or Scott will forward that email to the appropriate region and copy Betty.

3. Betty will track reciprocity inspections in TEMPO to ensure that Surveillance meets its goal of inspecting 50% per year.