

June 8, 2000

J. Dale Givens, Secretary  
Department of Environmental Quality  
P.O. Box 82263  
Baton Rouge, LA 70884-2263

Dear Mr. Givens:

On May 31, 2000, 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 assure public health and safety and compatible with NRC's program.

Section 5.0, page 16, of the enclosed final report presents the IMPEP team's recommendations. We received your May 1, 2000 letter which described your actions taken in response to the recommendations in the draft report. We request no additional information.

Based on the results of the current IMPEP review, the next full review will be in approximately 4 years.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review and your support of the Radiation Control Program. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

***/RA by Paul H. Lohaus Acting for/***

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

Enclosure:  
As stated

cc: L. Hall Bohlinger, Deputy Secretary Department of Environmental Quality	Thomas Bickham, Assistant Secretary Office of Management and Finance
Bliss Higgins, Assistant Secretary Office of Environmental Services	Ronald Wascom, Administrator Environmental Assistance Division
Linda Levy, Assistant Secretary Office of Environmental Compliance	Roland Fletcher, Maryland Agreement State Liaison to MRB
Jim Brent, Assistant Secretary Office of Environmental Assessment	

bcc: Chairman Meserve  
 Commissioner Dicus  
 Commissioner Diaz  
 Commissioner McGaffigan  
 Commissioner Merrifield

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NAME	JLLynch:kk (By KSchneider per JLynch/Telephone)	FCCombs (By PLohaus)	PHLohaus	CJPaperiello (By PLohaus)	
DATE	06/06/2000	06/06/2000	06/06/2000	06/08/2000	

**STP-AG-12**

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF LOUISIANA AGREEMENT STATE PROGRAM

February 28 - March 3, 2000

# 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 February 28 - March 3, 2000, by a review team comprised of technical staff members from the Nuclear Regulatory Commission (NRC) and the Agreement State of Tennessee. 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 October 12, 1996 to March 3, 2000, were discussed with Louisiana management on March 3, 2000.

A draft of this report was issued to Louisiana for factual comment on March 30, 2000. The State responded in a letter dated May 1, 2000. The Management Review Board (MRB) met on May 31, 2000, to consider the proposed final report. The MRB found the Louisiana radiation control program was 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). On July 1, 1999, the Department began a significant reorganization, as recommended by a business process reengineering committee. The transition to the new organizational structure is, at this time, still ongoing. The Department is divided into four Offices which report to the Secretary. 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.

The reorganization organizes Departmental offices by function rather than by program specialty. Thus, all Departmental 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.

With this new organization comes a radiation control program spread between a number of offices in the Department. In preparation for this review, the former Radiation Control Program Manager coordinated Department efforts to complete the questionnaire, arrange for inspector accompaniments and arrange for meetings and interviews. This individual no longer has responsibility for radiation control. The review team requested, during the review exit meeting, that a single point of contact be maintained for future communications with the NRC. That individual would distribute NRC communications to the appropriate Departmental office and serve as a conduit back to the NRC. The Deputy Secretary for the Department agreed that the single point of contact is a sound concept and would provide a contact name to NRC.

Organization charts for the Department, the Surveillance Division and the Permits Division are included as Appendix B. The Louisiana program regulates approximately 520 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 December 29, 1999. The Department provided a response to the questionnaire on February 11, 2000. A copy of the questionnaire responses is included as Appendix G to proposed final report.

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 four 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 Department's actions in response to recommendations made following the previous IMPEP review. 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 October 11, 1996, eight recommendations were made and the results transmitted to J. Dale Givens, Secretary, on April 28, 1997. The review team's evaluation of the current status of the recommendations is as follows:

1. The team recommends that the State adopt a policy of issuing unrestricted release letters in all cases where loose material has been used, and before the license is terminated.

Current Status: An evaluation of terminated licenses concluded that the State has changed the language of the terminated license templates to indicate that the facility may be released for unrestricted use. This action was implemented in September 1999. Terminated license files contain a close out survey and/or leak test results from the licensee. In most cases, and for all cases where unsealed material was used, Department inspectors perform a final inspection or confirmatory survey, as appropriate, prior to license termination. This recommendation is closed.

2. The team recommends that each location of use on multiple site licenses be revised by license condition to specify the material authorized for each different location of use or site.

Current Status: The review team evaluated broad scope and medical licenses with multiple locations of use and determined that the Department amended the applicable licenses to accurately reflect the licensed material authorized for each location. This recommendation is closed.

3. The review team recommends that all licensees be notified according to the All Agreement States Letter SP-96-022 which requests licensees to file for reciprocity when performing work under exclusive Federal jurisdiction. Licenses which allow for temporary job sites should be amended to state that a reciprocity request will be filed when conducting work under exclusive Federal jurisdiction.

Current Status: The review team confirmed that licenses authorizing temporary job sites were amended to indicate that reciprocity should be requested prior to work in areas under exclusive Federal jurisdiction. This recommendation is closed.

4. The review team recommends that the State evaluate the process for promulgating compatibility regulations to better ensure that the State meets the three-year time frame.

Current Status: During the review period, the Department has undergone business process reengineering and has assigned to the Regulation Development Section the duty of assisting each Division to ensure that all Departmental rules are promulgated in accordance with the State's Administrative Procedure Act and are compatible with applicable Federal requirements. All NRC regulations required to be adopted are currently in effect. This recommendation is closed.

5. The MRB recommends that the State implement the requirements in the draft Louisiana's Decommissioning Recordkeeping Documentation of Restricted Areas and Spill Site regulation through legal binding requirements on a case-by-case basis until the regulation is promulgated as final.

Current Status: The Department implemented its draft regulations on a case-by-case basis until the final rule was adopted in November 1998. This recommendation is closed.

6. The review team recommends:

- (a) An additional staff member with industry experience in source fabrication, equipment design, and fabrication should be available to supplement the staff responsible for review of the product evaluation. This item is critical now, given the lack of experience with the industry of the State lead technical reviewer.

Current Status: The situation has significantly changed due to the Department's reorganization, staff turnover, and retirements. As a result, the specific needs identified in the 1996 recommendation no longer apply. The program has two

qualified Sealed Source & Device (SS&D) evaluators, and plans to train and qualify two more. This recommendation is closed.

- (b) Review proprietary information that was previously missing before final action is taken on pending source and device amendment requests. This is of particular importance because of a pending request to splice/repair source assemblies by using a compression sleeve in the middle of the cable. The State must carefully review this proposed change for effect on the flexibility and on the endurance of the radiography system.

Current Status: The missing information was located and reviewed. The source assembly registration sheets issued since the last review prohibit splicing or repair of the cables. This recommendation is closed.

- (c) Determine how the custom gauging source chains are held together when they are placed in use as insertion gauges.

Current Status: The Department contacted both the custom user and the source manufacturer and has requested technical information to resolve the issue. As the Department is aware of the issue, pursuing resolution and the health and safety significance is low, the review team determined that further discussion is not needed. This recommendation is closed.

- 7. The review team recommends that the State develop and implement a training program for SS&D reviewers.

Current Status: The training program consists of attendance at the NRC SS&D training workshop, supplemented by guidance and direction from experienced senior staff. This will be implemented for the two newly assigned SS&D reviewers. This recommendation is closed.

- 8. The review team recommends that the State follow up on the incident associated with the two radiography cameras to ensure that the SS&D sheet is modified and properly distributed.

Current Status: As noted in the 1996 IMPEP report, the SPEC 2-T camera is no longer in use. The SPEC 150 camera uses SPEC "G" series sources (see LA-0612-D-111-S). The source registry sheet, LA-0612-S-105-S, was amended in its entirety on January 18, 1995. This recommendation is closed.

The two suggestions identified during the 1996 review concerned the Department's: (1) document control system; and (2) incident tracking system. The review team determined that the State considered the suggestions and took appropriate actions.

### 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) Status of Materials Inspection Program; (2) Technical Quality of Inspections; (3) Technical Staffing and Training; (4) Technical Quality of Licensing Actions; and (5) Response to Incidents and Allegations.

#### 3.1 Status of Materials Inspection Program

The team focused on four factors in evaluating this indicator: inspection frequency, overdue inspections, initial inspections, and timely dispatch of inspection findings to licensees. The review team's evaluation is based on the Louisiana questionnaire responses relative to this indicator, data gathered independently from the State's licensing and inspection data tracking system, the examination of completed licensing and inspection casework, and interviews with managers and staff. Radioactive material inspections are performed by the Surveillance Division. The review team interviews included the Surveillance Division Administrator.

A review of the Louisiana inspection priorities revealed that the inspection frequencies for the various types of licenses are the same or more frequent than similar license types listed in NRC Inspection Manual Chapter (IMC) 2800, with the single exception of the frequency for High Dose Rate Remote afterloaders (HDRs). Louisiana HDR licenses are scheduled to be inspected at a two-year frequency instead of a one-year frequency as required in NRC IMC 2800. Currently, there are 23 licensees that possess HDRs in Louisiana. An evaluation of 15 of these licenses indicated that six had been inspected at a one-year frequency, and nine at a frequency of two years. The review team recommends that the Department modify the inspection frequency for HDRs to one year.

In their response to the questionnaire, the Department indicated that they had no inspections overdue by more than 25% of the NRC frequency. During the week of the review, the team verified that there were no inspections overdue by this frequency, with the exception of the HDR licenses for reasons stated in the above paragraph.

With respect to initial inspections of new licensees, the team evaluated a list of licensing actions and determined that there were 92 new licenses issued during the review period. A random sampling of 20 of these new licenses were reviewed: one was still within the six-month inspection frequency; 14 were inspected within six months; three were inspected within seven to nine months; and two were still not inspected (one at 11 months and the other at 14 months since the license was issued). The two late inspections are due to a database coding problem identified during this review.

The timeliness of the issuance of inspection findings was evaluated during the inspection casework review. With only two exceptions, as noted in Appendix C, inspection findings were issued at the end of the inspection by utilizing a DRC-17 form which is signed by the licensee and lists violations discovered during the inspection.

Licensee requests for reciprocity are received and approved by the licensing staff in the Permits Division. The information is then communicated to the inspection staff in the Surveillance Division



for possible inspection. To evaluate the Department's reciprocity inspection program, the review team examined the reciprocity log and the list of the reciprocity inspections conducted for the years of 1998 and 1999. In 1998, Louisiana received 387 notifications of entry into the State by 70 licensees and in 1999 there were 395 notifications from 69 licensees. Of these licensees for both years, the Department inspected six of 13 priority 1 licenses; eight of 18 priority 3; and 18 of 108 licensees of lower priorities. No priority 2 license reciprocity requests were made in that time frame. The Department's efforts meet the criteria outlined in IMC 1220.

Prior to the review, Surveillance and Permits Division staffs identified that reciprocity requests, after approval, were not always being promptly communicated to the Surveillance Division. At the time of the review, a new procedure, designed to improve this communication was under development by the two Divisions.

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

### 3.2 Technical Quality of Inspections

The team evaluated the inspection reports, enforcement documentation, and interviews with inspectors for 20 radioactive material inspections conducted during the review period. The casework included 11 current and 2 former Louisiana materials license inspectors, and covered inspections of various types including manufacturers, medical, well logging, portable gauge, industrial radiography, nuclear pharmacy, and academic. Appendix C lists the inspection casework files reviewed for completeness and adequacy with case-specific comments.

The inspection procedures utilized by the Department are consistent with the inspection guidance outlined in IMC 2800. Inspection reports are in a narrative format which adequately cover all inspection areas. A DRC-17 form is filled out at the conclusion of inspections listing the inspection findings. This form is signed by the licensee as a commitment to correct identified violations. The inspection report is then reviewed by the inspector's supervisor or by a senior staff member. If significant violations are noted, a copy of the inspection report and findings are routed through the Enforcement Division for potential escalated enforcement.

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 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 environmental samples and samples taken by inspectors during inspections.

Based on casework and interviews with the inspectors, the review team noted that the routine inspections covered all aspects of licensee radiation programs. The review team found that inspection reports were thorough, complete, consistent, and of high quality, with sufficient documentation to ensure that licensee's performance with respect to health and safety was acceptable. The documentation supported violations, unresolved safety issues, and discussions held with the licensee during exit interviews. Team inspections were performed when appropriate

and for training purposes. Inspection reports were reviewed by supervisors or senior staff members within one week of the inspection. All of the inspectors have had annual accompaniments by supervisors since the last review, with newer staff having more frequent accompaniments.

Four Department inspectors were accompanied during inspections by a review team member during the period of January 25-27, 2000. Inspector accompaniments were conducted during inspections as follows: an academic broad scope license with a pool irradiator; a medical institution with brachytherapy; an industrial radiography field inspection; and a well logging company. These accompaniments are also identified in Appendix C.

During the accompaniments, the Department inspectors demonstrated appropriate inspection techniques and knowledge of the regulations. The inspectors were well trained, prepared, and thorough in their audits of the licensees' radiation safety programs. Overall, the technical performance of the inspectors was good, and their inspections were adequate to assess radiological health and safety at the licensed facilities.

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

### 3.3 Technical Staffing and Training

Issues central to the evaluation of this indicator include the radioactive materials program staffing level and staff turnover, as well as the technical qualifications and training of the staff. To evaluate these issues, the review team examined the State's questionnaire response relative to this indicator and interviewed the program management and staff.

The Surveillance Division radioactive materials inspection staff is based out of six regional offices, including the Baton Rouge compliance field office. A total of 6.25 FTE is allotted to the radioactive materials compliance and emergency response programs. Eight staff members perform the bulk of the radioactive materials inspections. Office coordinators and other compliance staff also contribute a limited amount of time doing radioactive material inspections. Under the reorganization, inspection staff perform other duties including non-radiological inspections for which the Department is responsible. The review team concluded that staffing is adequate for the radioactive materials inspection program.

Radioactive materials licensing is performed by the Permits Division. With the retirement of the former Radiation Licensing Program Manager in January 2000, the radioactive materials licensing staff has been reduced to only 0.6 FTE. Two other staff members, with licensing experience, are currently assigned to other activities, including the implementation of a new agency-wide electronic document management system. This system, called TEMPO, is expected to be on-line this year, which would free up FTE for the licensing program. The assignment of staff to the other activities was a management decision to address immediate Departmental needs. A new staff member, with no radiation experience, has also been hired to join the licensing program.

The team's evaluation of licensing actions did not identify deficiencies related to lack of staffing in this area. As noted in Section 3.4, in spite of the staff shortage, the Department produced quality

licensing products. So, although the review team is concerned about the radiation licensing staffing level, a formal recommendation to increase the number of license reviewers cannot be made, based on the State's performance. The shortage of licensing staff was discussed with the Permits Division Administrator who stated that he would allocate appropriate staffing resources as needed to maintain licensing quality.

Eight staff members left the program during the review period and 17 staff members were hired during the same period. As noted above, the workload for program staff has also increased since the reorganization and has them performing activities beyond radioactive materials regulation. As the reorganization continues, positions may be shifted between groups within Divisions.

The qualifications of the staff were determined from the questionnaire, training records, and interviews of personnel. The Department has had a training program in place for the staff which is comparable with the "NRC/OAS Working Group Recommendations for Agreement State Training Programs." The staff are well qualified from an education and experience standpoint. All have Bachelor's degrees in the sciences, or equivalent training and experience. Newer staff need to attend appropriate core courses. Other license reviewers/inspectors have attended most of the training courses prescribed by IMC 1246 and are familiar with Louisiana regulations, policies, and procedures. As noted in Section 4.2.2, a training need also exists in the SS&D program.

Several days after the review, the Surveillance Division contacted NRC to cancel Louisiana staff out of all scheduled training courses. Subsequent to that request, the Division asked that some of the training course slots be restored. At this time, staff are scheduled to attend the following courses:

- Five-week Health Physics course (2 staff);
- Transportation of Radioactive Materials;
- Health Physics Technology; and
- Gas and Oil Well Logging

Surveillance Division staff have been canceled out of the following courses:

- Inspection Procedures (4 staff);
- Introduction to Health Physics;
- Diagnostic and Therapeutic Nuclear Medicine (3 staff);
- Teletherapy and Brachytherapy (2 staff);
- Transportation of Radioactive Materials;
- Safety Aspects of Industrial Radiography; and
- Gas and Oil Well Logging

The withdrawal of staff from these training courses concerns the review team. Agreement States need to have a training qualification program to fulfill the objective of having staff meet minimum qualification requirements that provide for a national consistency in the regulatory program.

The Surveillance Division Administrator stated that the action resulted from a budgetary decision by the Office of Environmental Compliance. The Division is seeking training alternatives that are

less costly than the traditional training courses. One possibility under examination is contract training at in-State universities.

The importance of proper training was emphasized to the Surveillance Division Administrator. If alternative training is coordinated, care must be taken to assure that it accomplishes the same objectives as the core training courses.

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

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 recommends that Louisiana's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

### 3.4 Technical Quality of Licensing Actions

The review team examined completed licensing casework and interviewed the staff for 24 specific licenses. Licensing actions were evaluated for completeness, consistency, proper isotopes and quantities used, qualifications of authorized users, adequate facilities and equipment, and operating and emergency procedures sufficient to establish the basis for licensing actions. Licenses were evaluated for overall technical quality including accuracy, appropriateness of the license, its conditions, and tie-down conditions. Casework was evaluated for timeliness, adherence to good health physics practices, reference to appropriate regulations, documentation of safety evaluation reports, product certifications or other supporting documents, consideration of enforcement history on renewals, pre-licensing visits, peer or supervisory review as indicated, and proper signature authority. 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 sampling included the following types: source manufacturing and distribution, industrial radiography, well logging, academic broad scope (including pool and self-shielded irradiators), medical broad scope, nuclear medicine, brachytherapy, HDRs, gamma knife, nuclear pharmacy, fixed and portable gauges, and calibration services. Types of licensing actions selected for evaluation included four new licenses, eight amendments to existing licenses, four license renewals, and eight license terminations. A list of these licenses with case specific comments may be found in Appendix D.

All radioactive materials licensing is performed by staff in the Permits Division, located in the Baton Rouge office. In general, the review team found that the licensing actions were thorough, complete, consistent, of high quality and properly addressed health and safety issues. Special license conditions were stated clearly and backed by information contained in the file. In the review period, the Department issued 14 exemptions from industrial radiography regulations for pipeliners and/or cobalt-60 cameras; these exemptions were based on previously submitted justifications. The licensee's compliance history was taken into account when reviewing renewal

applications. As seen in Appendix D, most of the evaluated casework was performed by the one license reviewer currently performing licensing actions.

Licenses are issued for varying lengths of time, generally corresponding to the inspection frequency. Every two to five years, licensees are required to submit a letter stating that the program is unchanged, or to discuss any minor changes. The licenses are “tied-down” to the last submitted application and all subsequent correspondence. Every 7 to 10 years, licensees are required to submit an entirely new application to maintain current information in the file.

The review team determined that the Department does not currently require any of its licensees to maintain financial assurance for decommissioning. The team’s examination of the licenses disclosed that at least two appear to have license possession limits which would require financial assurance documents per Louisiana regulations. 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.

In 1993, a research and development license was amended for possession only, for cesium-137 contamination in the soil, and has been renewed every two years, since. This contamination occurred in 1979, in a workshop behind a residence, when the licensee accidentally breached a 100 millicurie cesium-137 sealed source. Current radiation levels at the site vary from background (12 microR/hr) to a 450 microR/hr “hot spot.” The licensee has since vacated the facility and it is currently residential rental property. The Department inspects the property every two years to insure that radiation levels do not pose significant health risks to renters and neighbors. A characterization performed by the Department indicated that the radiation levels on the site were suitable for unrestricted release. 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.

Based on the IMPEP evaluation criteria, the review team recommends that Louisiana’s performance with respect to the indicator, Technical Quality of Licensing Actions, be found 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 11 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 eight allegations involving radioactive materials, including one allegation referred to the Department, by NRC, during the review period.

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. 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, with a copy to a separate Incident File.

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. The staff was familiar with the guidance contained in the "Handbook on Nuclear Event Reporting in the Agreement States."

During the period of this review, the Department adopted and implemented the NMED incident reporting system. However, in April 1999, the Department's computer system was upgraded and does not include Access 2.0 software, the database management software currently used by NMED (Access 2.0 is now obsolete and is not commercially available). Since that time, Louisiana has been submitting incident information in a written format to NRC's contractor, Idaho National Engineering and Environmental Laboratory (INEEL), for input to NMED. Each incident meeting the criteria for reporting to the NMED system has been reported to NRC and INEEL 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 contractor remarked to the NRC Office of State Programs that the State has done an exceptional job of providing event related data and clarifying information to INEEL.

The Department received 19 allegations during the review period, most of which involved naturally occurring radioactive material and x-rays. The review team examined eight allegations involving byproduct material. The team's evaluation indicated that the Department took prompt and appropriate action in response to the concerns raised. Practically all communication with the Department is considered public record under Louisiana's Open Records Law. Any alleegeer 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 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 recommends that Louisiana's performance with respect to the indicator, Response to Incidents and Allegations, be found 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 is adequate.

##### 4.1.2 Program Elements Required for Compatibility

The Regulations for Control of Radiation, found in Part XV, Radiation Protection, 2000 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. Regulations in Louisiana are subject to a "sunset law" and are next scheduled for review in July 2001. 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 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 Programs Regulation Assessment Tracking System. All regulations required to be adopted are currently in effect. However, during the review, the team identified a State regulation currently in effect that appears to require some revision to maintain compatibility. Specifically, Appendix B of Chapter 3, Licensing of Radioactive Material, and Appendix C of Chapter 4, Radiation Protection, contain typographical errors which could effect the quantity limits of radioactive material required for a licensee to provide financial assurance for decommissioning. After discussing this issue with Regulation Development staff in the Environmental Planning

Division, the review team was informed that the Department intends to proceed with an expedited rulemaking package to correct the errors in the State's Financial Assurance requirements.

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:

- ! "Compatibility with the International Atomic Energy Agency," 10 CFR Part 71 amendment (60 FR 50248) that became effective April 1, 1996.
- ! "Termination or Transfer of Licensed Activities: Recordkeeping Requirements," 10 CFR Parts 20, 30, 40, 61, and 70 amendments (61 FR 24669) that became effective June 17, 1996.
- ! "Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act," 10 CFR Part 20 amendment (61 FR 65120) that became effective January 9, 1997.
- ! "Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State," 10 CFR Part 150 amendment (62 FR 1662) that became effective February 27, 1997.
- ! "Criteria for the Release of Individuals Administered Radioactive Material," 10 CFR Parts 20 and 35 amendments (62 FR 4120) that became effective May 29, 1997.
- ! "Licenses for Industrial Radiography and Radiation Safety - Requirements for Industrial Radiography Operations," 10 CFR Parts 30, 34, 71, and 150 amendments (62 FR 28948) that became effective June 27, 1997.
- ! "Radiological Criteria for License Termination," 10 CFR Parts 20, 30, 40, and 70 amendments (62 FR 39057) that became effective August 20, 1997.
- ! "Exempt Distribution of a Radioactive Drug Containing One Microcurie of Carbon-14 Urea," 10 CFR Part 30 amendment (62 FR 63634) that became effective January 2, 1998.
- ! "Deliberate Misconduct by Unlicensed Persons," 10 CFR Parts 30, 40, 61, 70, and 150 amendments (63 FR 1890 and 63 FR 13773) that became effective February 12, 1998.
- ! "Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations; Clarifying Amendments and Corrections," 10 CFR Part 34 amendment (63 FR 37059) that became effective July 9, 1998.
- ! "Minor Corrections, Clarifying Changes, and a Minor Policy Change," 10 CFR Parts 20, 32, 35, 36, and 39 amendments (63 FR 39477 and 63 FR 45393) that became effective October 26, 1998.
- ! "Transfer for Disposal and Manifests; Minor Technical Conforming Amendment," 10 CFR Part 20 amendment (63 FR 50127) that became effective November 20, 1998.



- ! “Respiratory Protection and Controls to Restrict Internal Exposures,” 10 CFR Part 20 amendment (64 FR 54543 and 64 FR 55524) that became effective February 2, 2000.

It is noted that Management Directive 5.9, Handbook, Part V, (1)(C)(III) provides that the above regulations issued prior to September 3, 1997, should be adopted by the State as expeditiously as possible, but not later than three years after the September 3, 1997 effective date of the Commission Policy Statement on Adequacy and Compatibility, i.e., September 3, 2000.

Based on the IMPEP evaluation criteria, the review team recommends that Louisiana’s performance with respect to the indicator, Legislation and Program Elements Required for Compatibility, be found 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 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

During the review period, the Department completed seven SS&D evaluations. The cases were representative of the Department’s licensees and SS&D evaluation personnel. The cases were completed between June 1998 and January 2000. Case 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 registration files contain the correspondence, photographs, engineering drawings, radiation profiles, and results of tests conducted by the applicants. The ANSI 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 documentation of the evaluations in the 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.

#### 4.2.2 Technical Staffing and Training

Since the last review, three qualified SS&D evaluators left the program. Both members of the SS&D evaluation team formed after the 1996 IMPEP review have left the program. The senior SS&D evaluator retired in January 2000. The Department has two other qualified evaluators, but has reassigned both of them to other divisions. They currently conduct SS&D evaluations as secondary duties. 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 two individuals currently performing SS&D evaluations. One has an engineering degree; the other has experience in the design and fabrication of sealed sources, and substantial regulatory experience. Both have attended the NRC SS&D training. Both displayed the ability to understand and interpret the information submitted by applicants. However, the time available for them to conduct SS&D evaluations is limited. The team believes that these workload issues contributed to the number of observed minor errors in the registry sheets. An extended continuation of this staffing pattern increases the chance of more serious errors.

The Permits Division has one individual on staff and one new hire (started in March 2000) that will conduct SS&D evaluations as part of their primary duties. Both individuals need SS&D evaluation training, and the Department management has discussed the need with NRC staff. The review team discussed the Department's training needs with the NRC Office of Nuclear Material Safety and Safeguards. That office indicated that it will work with the State to provide SS&D training to Departmental staff either through a training class or on-the-job training in the NRC Headquarters office.

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

There were no new defects or incidents involving SS&Ds of Louisiana registry.

Based on the IMPEP evaluation criteria, the review team recommends that Louisiana's performance with respect to the indicator, Sealed Source and Device Evaluation Program, be found 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 found Louisiana's performance to be satisfactory for all seven performance indicators. Accordingly, the review team recommended and the MRB concurred in finding the Louisiana Agreement State Program to be adequate and compatible with NRC's program. Based on the results of the current IMPEP review, the next full review will be in approximately 4 years.

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 Department modify the inspection frequency for HDRs to one year. (Section 3.1)
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)
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)
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)

## LIST OF APPENDICES

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 & Device Casework Reviews
Attachment	May 1, 2000 Letter from J. Dale Givens Louisiana Response to Draft IMPEP Report

APPENDIX A

**IMPEP REVIEW TEAM MEMBERS**

<b>Name</b>	<b>Area of Responsibility</b>
James Lynch, Region III	Team Leader Technical Staffing and Training
Mark Shaffer, Region IV	Response to Incidents and Allegations Legislation and Program Elements Required for Compatibility
Allen Grewe, Tennessee	Technical Quality of Inspections Status of Materials Inspection Program
Orysia Masnyk Bailey, Region II	Technical Quality of Licensing Actions
Richard Blanton, OSP	Sealed Source and Device Evaluation Program

APPENDIX B

LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY  
and  
DEQ SURVEILLANCE DIVISION  
and  
DEQ PERMITS DIVISION

ORGANIZATION CHARTS  
(SEE ML003715632)

# PROPOSED ORGANIZATIONAL STRUCTURE

DEQ CUSTOMER SERVICE (225) 765-5423

TOLL-FREE CUSTOMER SERVICE 1-888-763-5424



## OFFICE OF SECRETARY J. DALE GIVENS, SECRETARY

(225) 765-0741 Fax: (225) 765-0746

L. Hall Rohlinger  
Deputy Secretary (225) 765-0642

Marian Mergist  
Executive Asst (225) 765-0639

**INTERNAL AUDIT**  
765-0637  
Clay Stafford, Audit Supervisor

**LEGAL**  
765-0236  
Hernan Robinson, General Counsel  
Adele Allen, Exec Secty 765-0241  
Investigations 765-0398

**TECHNICAL ADVISORS**  
765-5411  
Gary Aydell Bill Deville  
Bill Mollere Glenn Miller  
Harold Ethridge

**COMMUNICATIONS**  
765-5403  
Jeff Simon, Communications Director

**MANAGEMENT & FINANCE**  
765-0647  
Tom Hagan, Undersecretary  
Theresa Stephens, Exec Asst  
765-0733

**ENVIRONMENTAL SERVICES**  
765-0219  
Bliss Hays, Asst Secty  
Helen Barlow, Exec Secty  
765-0102

**ENVIRONMENTAL COMPLIANCE**  
765-0634  
Linda Levy, Asst Secretary  
Ursula Anderson, Exec Secty  
765-0491

**ENVIRONMENTAL ASSESSMENT**  
765-0355  
Jim Brent, Asst Secretary  
Jackie Higginbotham, Exec Secty  
765-0241

**INFORMATION SERVICES**  
765-0062  
• Information Systems  
• GIS  
• Records Management  
Stacey Richardson

**LABORATORY SERVICES**  
765-2405  
• Air Laboratory  
• Water Laboratory  
• Radiological Lab  
• Lab Certification  
Louis Johnson

**FINANCIAL SERVICES**  
765-0700  
• Planning & Budget  
• General Acctg  
• Payables  
• Payroll  
• Billing & Receivables  
• Contracts/Grants Acctg  
• Loans  
Darryl Serio

**ADMINISTRATIVE SERVICES**  
765-0647  
• Human Resources  
• Personnel  
• Safety & Training  
• Procurement  
• General Services  
• Fleet Mgmt  
• Facilities  
• Property Control  
• Contracts & Grants  
• Grant Development & Performance Partnership  
Tom Patterson

**ENVIRONMENTAL ASSISTANCE**  
765-0112  
• SBA  
• Customer Assistance Ctr  
• Outreach  
• Complaints/Hotline  
• Community Industry Rtns  
Ronnie Hascom

**PERMITS**  
765-0110  
• Municipal/Industrial Permits  
• Commercial Permits  
• Authorizations  
• Certifications  
• Licenses  
Mike Vince

**SURVEILLANCE**  
765-2953  
• Inspections  
• Lead Abatement  
• Asbestos  
• Emergency Response  
• Con plant Resolution  
• Ambient Sample Collection  
Chris Roberie

**ENFORCEMENT**  
765-0495  
• Investigations  
• Compliance Tracking  
• Enforcement  
Bruce Harriott

**ENVIRONMENTAL PLANNING**  
765-0232  
• Environmental Strategic Planning  
• Media Standards/Limits  
• Regulation Development  
Rob Hannah

**ENVIRONMENTAL EVALUATION**  
765-0231  
• Evaluate Environmental Performance  
• Develop Indicators & Measurements  
• Evaluate Monitoring Data  
• Media Training  
Vince Sagnibene

**ENVIRONMENTAL TECHNOLOGY**  
765-0223  
• Technology  
• Media Monitoring  
• Current Technologies  
• Pollution Prevention  
• Industrial Process Improvement  
• Risk Management  
Tim Knight

**REMEDIAL SERVICES**  
765-0333  
• Superfund  
• Brownfields/Voluntary Cleanup Programs  
• Inactive & Abandoned Sites Assessment  
• RCRA Remediation  
• Multimedia Correction Activities  
Keith Casanova

# SURVEILLANCE DIVISION

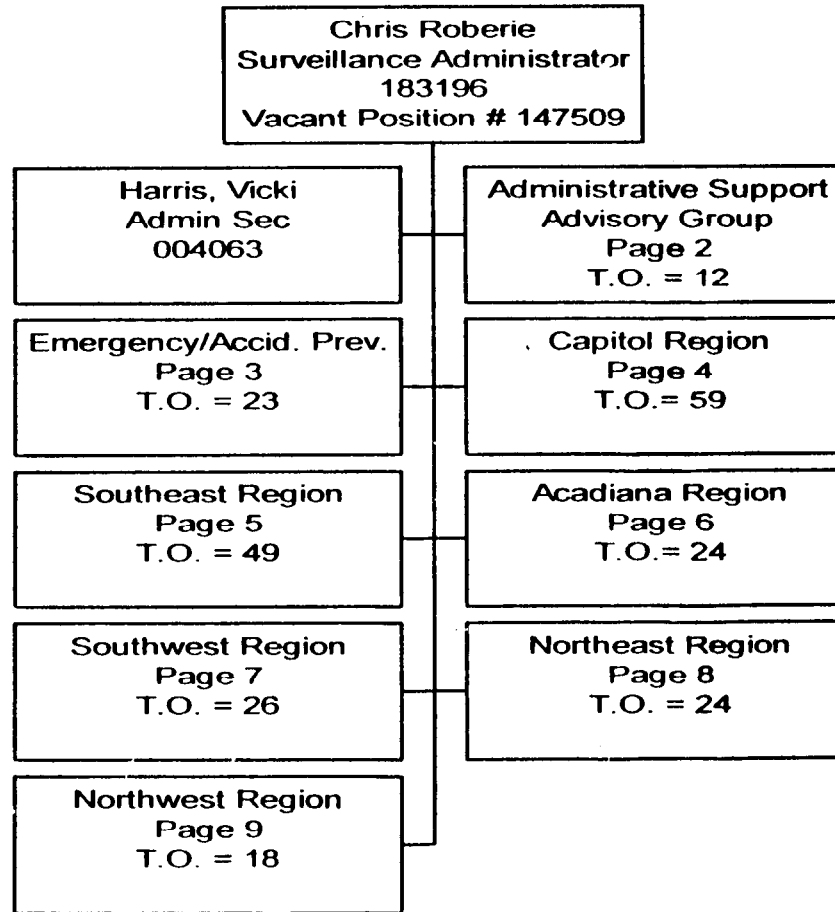
T. O. = 235

Total organization

Central office T.O. = 35

Regional office T.O. = 200

Note: Positions in the Alexandria office have been assigned to the Northeast Region providing more equity in the T.O.. This will allow for a more consistent level of responsibility among Regional Managers.

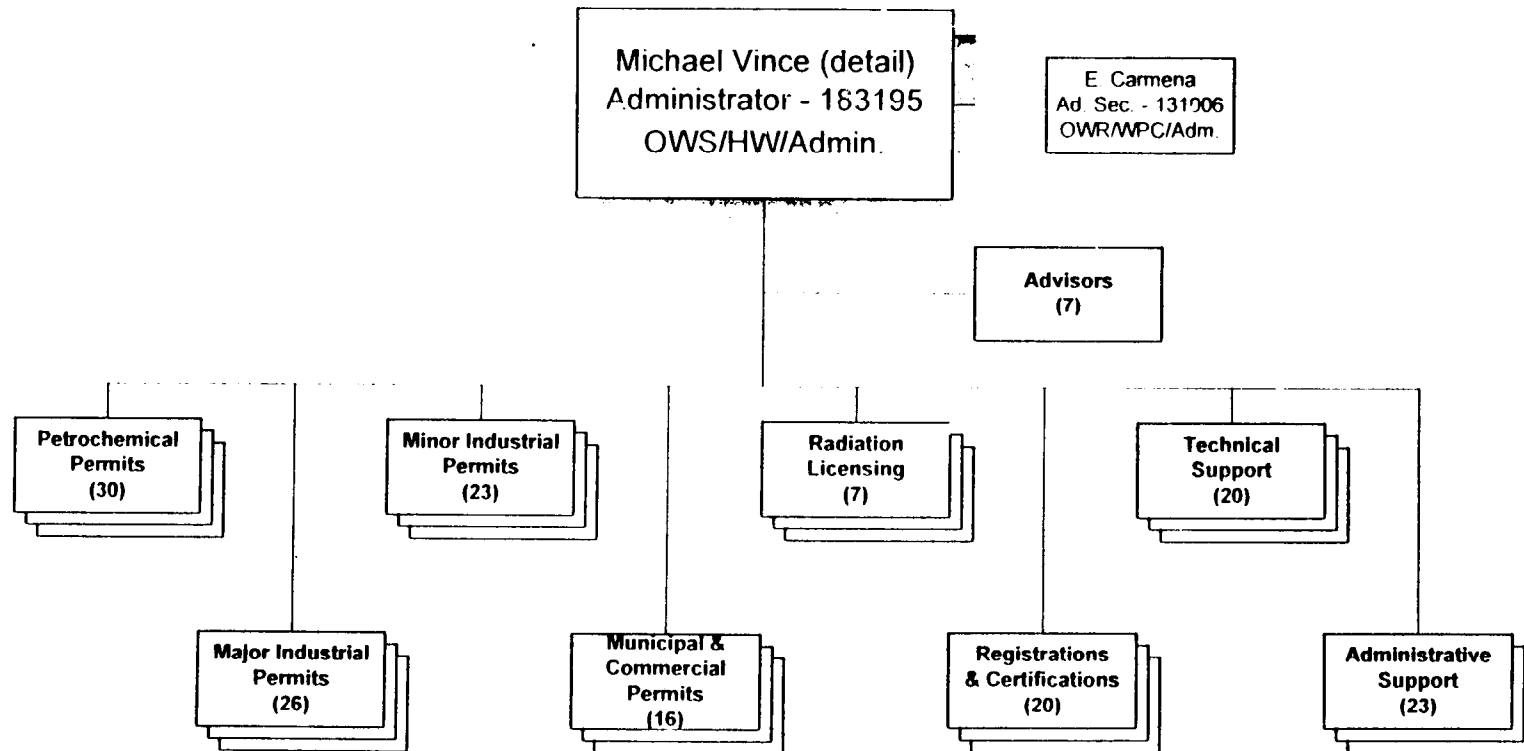


January 26, 2000



T.O. = 174  
Vacant = 17  
Proposed = 1

# Permits Division



February 28, 2000

Shaded areas indicate vacant positions.

ATTACHMENT

MAY 1, 2000 LETTER FROM J. DALE GIVENS  
LOUISIANA RESPONSE TO DRAFT IMPEP REPORT  
(SEE ML003712882)



State of Louisiana  
Department of Environmental Quality



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

May 1, 2000

J. DALE GIVENS  
SECRETARY

Paul H. Lohaus, Director  
Office of State and Tribal Programs  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Lohaus:

The Integrated Materials Performance Evaluation Program (IMPEP) conducted by the NRC review team in the State of Louisiana on February 28 through March 3, 2000, resulted in a recommendation that the Louisiana Agreement State program be found adequate to protect public health and safety and compatible with the NRC program. The review team found Louisiana's performance to be satisfactory for all seven indicators. There were four recommendations brought to our attention as a result of the IMPEP review, and these are addressed below.

RECOMMENDATIONS:

1. The review team recommends that the Department modify the inspection frequency for HDRs to one year.

Response: The inspection frequency for HDR units has been modified to one year.

2. The review team recommends that the Department implement measures to ensure that staff receives appropriate and adequate training in health physics and operational topics.

Response: In the past, the Department has ensured that all staff receive appropriate and adequate training in health physics and operational topics and will continue to do so in the future. With the recent shift in NRC policy of no longer providing training at no cost to the states, we are confronted with budgetary constraints that make it difficult to participate in a timely fashion in all the courses needed. Currently, we are researching the possibility of participating in training classes and programs outside of those sponsored by NRC. Our core inspector training courses remain the same as discussed during the IMPEP review. Our goal is to provide this training in state to lower the training costs and to do this without degradation of course content. Our intentions are to return to the NRC-sponsored training program should we be unable to fulfill both aspects of this goal.



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.

Response: All licenses will be reviewed, and for those which financial assurance for decommissioning is required, appropriate action will be undertaken to obtain that financial assurance mechanism.

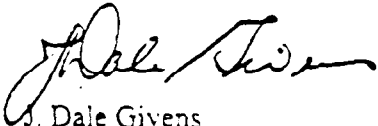
4. The review team recommends that the Department either use the existing site characterization to terminate the cesium-137 contamination license; re-characterize the site using current decommissioning criteria; or require the licensee to begin decommissioning activities in accordance with the Decommissioning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

Response: The licensed site contaminated with cesium-137 has been re-inspected and will be terminated using the existing site characterization.

We look forward to discussing these or other issues during the NRC Management Review Board video conference scheduled for May 31, 2000, from 12:00n to 2:00pm CDT.

If you have any questions or desire additional information concerning these four items, please contact L. Hall Bohlinger at (225) 765-0642.

Sincerely,



J. Dale Givens  
Secretary

JDG:lhb