



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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February 12, 2010

Paul Halverson, DrPH, MHSA
Director of Health and State Public Health Officer
Arkansas Department of Health
4815 West Markham, Slot 39
Little Rock, AR 72205

Dear Dr. Halverson:

On January 14, 2010, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Arkansas Agreement State Program. The MRB found the Arkansas Program adequate to protect public health and safety, but needs improvement, and compatible with the U.S. Nuclear Regulatory Commission's (NRC's) program. Because of the significance of the findings, the MRB decided to extend the period of heightened oversight of the Arkansas Agreement State Program. Heightened oversight is an increased monitoring process that NRC uses to follow the progress of improvement needed in an Agreement State program. It involves implementation of a program improvement plan, participation on bimonthly conference calls with NRC managers and staff members, and submission of status reports prior to each call.

Section 5.0, page 14, of the enclosed final report contains a summary of the review team's findings and recommendations for the Arkansas Agreement State Program. I request that you revise your existing program improvement plan to address the review team's recommendations, as some recommendations have changed since your plan was first implemented. I encourage you to take a close look and revise your program improvement plan to ensure that the specific milestones listed in the plan meet the State's needs for a path toward improvement. The revised plan should be submitted to NRC within 30 days of receipt of this letter. Upon review and approval of your program improvement plan, NRC staff will schedule the first conference call. Based on the results of the current IMPEP review, a followup review will be scheduled approximately 18 months from the date of the October 2009 IMPEP review. The followup review will cover the State's implementation of the program improvement plan and the actions taken in response to the recommendations in the enclosed final report.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Agreement State Program.

P. Halverson

- 2 -

I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

/RA/

Martin J. Virgilio
Deputy Executive Director for Materials, Waste,
Research, State, Tribal, and Compliance Programs
Office of the Executive Director for Operations

Enclosure:
Arkansas Final IMPEP Report

cc w/encl.: Renee Mallory, RN, Chief
Arkansas Health Systems Licensing
and Regulation Branch

Bernard Bevill, Chief
Arkansas Radiation Control Section

Mike Broderick, Oklahoma
Organization of Agreement
States Liaison to the MRB



INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE ARKANSAS AGREEMENT STATE PROGRAM

OCTOBER 26-30, 2009

FINAL REPORT

Enclosure

1.0 INTRODUCTION

This report presents the results of the review of the Arkansas Agreement State Program. The review was conducted during the period of October 26-30, 2009, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of North Dakota. Team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Rescission of Final General Statement of Policy," published in the *Federal Register* on October 16, 1997, and NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)," dated February 26, 2004. Preliminary results of the review, which covered the period of September 2, 2006, to October 30, 2009, were discussed with Arkansas managers on the last day of the review.

A draft of this report was issued to Arkansas for factual comment on November 23, 2009. The State responded by letter dated January 4, 2010, from Charles McGrew, Deputy Director and Chief Operating Officer, Department of Health (the Department). A copy of the State's response is included as the Attachment to this report. The Management Review Board (MRB) met on January 14, 2010, to consider the proposed final report. The MRB found the Arkansas Agreement State Program adequate to protect public health and safety, but needs improvement, and compatible with NRC's program.

The day-to-day operations of the Arkansas Agreement State Program are administered by the Radioactive Materials Program (the Program). The Program is one of three programs in the Radiation Control Section (the Section), which is part of the Health Systems Licensing and Regulation Branch (the Branch). The Branch is part of the Center for Health Protection within the Department. Organization charts for the State, the Department, and the Section are included as Appendix B.

At the time of the review, the Arkansas Agreement State Program regulated 226 specific licenses authorizing byproduct, source, and certain special nuclear materials. The review focused on the radioactive materials program as it is carried out under the Section 274b. (of the Atomic Energy Act of 1954, as amended) Agreement between NRC and the State of Arkansas.

The Arkansas Agreement State Program was placed on heightened oversight based on the findings from an August 28, 2007 periodic meeting. During the periodic meeting, NRC staff determined that performance weaknesses identified during the 2006 IMPEP review had not been resolved; specifically, Arkansas's loss of experienced staff allowed the backlog of licensing actions to persist and created a backlog of inspections. Based on the results of this review, the MRB, at its January 14, 2010 meeting, extended the period of heightened oversight of the Arkansas Agreement State Program.

In preparation for this review, a questionnaire addressing the common and applicable non-common performance indicators was sent to the Section on April 14, 2009. The Program provided a response to the questionnaire on September 30, 2009. The questionnaire response can be found in NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML092740748.

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

Section 2.0 of this report covers the State's actions in response to open recommendations from previous reviews. Results of the current review of the common performance indicators are presented in Section 3.0. Section 4.0 details the results of the review of the applicable non-common performance indicators, and Section 5.0 summarizes the review team's findings and recommendations. The review team's recommendations are comments that relate directly to program performance by the State. A response is requested from the State to all recommendations in the final report.

2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded on September 1, 2006, the review team made four recommendations regarding program performance and left one recommendation open from a previous review. The status of these recommendations is as follows:

1. The review team recommends that the State evaluate current and future staffing needs and business processes to develop and implement a strategy that improves the effectiveness and efficiency of the Program to ensure its continued adequacy and compatibility. (Section 3.1 of the 2006 IMPEP Report)

Status: Subsequent to the 2006 IMPEP review, the Program evaluated its staffing needs based on current and projected workloads. The Program determined that, with a full complement of qualified staff, the Program has sufficient staff to perform its regulatory functions. The review team came to the same conclusion, as discussed in Section 3.1 of this report; however, the review team identified concerns with the high degree of staff turnover that the Program experienced during the review period. The review team believes that the Program has met the intent of this part of the recommendation and makes a new recommendation specifically targeted at addressing the staff turnover issue in Section 3.1. The review team did not see direct evidence of an evaluation of business processes to improve effectiveness and efficiency; however, the review team believes that a new recommendation in Section 3.1 regarding a knowledge management program will satisfy the intent of this part of this recommendation. This recommendation is closed.

2. The review team recommends that the State develop and implement a documented training plan consistent with the guidance in the NRC/Organization of Agreement States (OAS) Training Working Group Report and NRC's Inspection Manual Chapter (IMC) 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area." (Section 3.1 of the 2006 IMPEP Report)

Status: Following the 2006 IMPEP review, the Program developed and implemented a documented training plan that is consistent with the guidance in the NRC/OAS Training Working Group Report and NRC's IMC 1246. The review team verified that the new training plan is being followed for new staff by reviewing each staff member's training progress chart maintained by the Program Manager. This recommendation is closed.

3. The review team recommends that the State develop and implement an inspection prioritization and inspection frequency protocol that can be consistently applied and at least meets the minimum requirements of IMC 2800, "Materials Inspection Program." (Section 3.2 of the 2006 IMPEP Report)

Status: During the review period, the Program revised its policy for assigning inspection frequencies to be consistent with IMC 2800. The review team verified that new policy meets the minimum requirements of IMC 2800 and has been consistently applied to the Program's licensees. This recommendation is closed.

4. The review team recommends that Department management develop and implement an action plan to reduce the licensing renewal backlog. (Section 3.4 of the 2002 IMPEP Report)

Status: Following the 2007 periodic meeting, the Arkansas Agreement State Program was placed on heightened oversight due to staff turnover, the growing inspection backlog, and the historic backlog of license renewals. Heightened oversight is a form of increased oversight that NRC uses to monitor the progress of programmatic improvements necessary to restore an Agreement State program to fully satisfactory performance. As part of the heightened oversight process, the State developed a Program Improvement Plan, a corrective action plan specifically addressing the areas needing improvement. The Program Improvement Plan had a line item for the reduction and ultimate elimination of the license renewal backlog; however, the Program Improvement Plan did not have specific, measurable performance goals or a prioritization of the backlogged license renewals. The review team believes that a successful action plan to address the backlog needs specific, measurable performance goals and a prioritization of the backlogged renewals based on health and safety significance. This recommendation remains open.

5. The review team recommends that the State develop and implement a license termination procedure to ensure consistent and acceptable quality of information requests and documentation. (Section 3.4 of the 2006 IMPEP Report)

Status: The Program revised its procedure for license termination and decommissioning in response to this recommendation in an attempt to promote consistency in the license termination process. The review team reviewed the revised procedure and found that it provided sufficient guidance to the license reviewers; however, the review team noted several instances where material dispositions and license terminations were approved without receiving the proper supporting documentation, as required by the procedure. For example, several sealed source dispositions and/or license termination requests did not include the necessary documentation to demonstrate radioactive material disposition and/or performance of leak tests of the sources. The review team believes that the staff

needs additional training on the procedure and that there needs to be a period of performance before this procedure can be considered fully implemented. This recommendation remains open.

3.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review NRC Regional and Agreement State radioactive materials programs. These indicators are: (1) Technical Staffing and Training, (2) Status of Materials Inspection Program, (3) Technical Quality of Inspections, (4) Technical Quality of Licensing Actions, and (5) Technical Quality of Incident and Allegation Activities.

3.1 Technical Staffing and Training

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

The Program, when fully staffed, consists of the Program Manager, six Health Physicists, and one administrative staff member. The Health Physicists perform licensing, inspection, and incident response duties, as well as emergency response duties at the nuclear power plant in the State. The Program also has two part-time consultants for licensing actions and special projects. The review team determined that the number of staff in the Program is sufficient based on the Program's current and projected workloads; however, the review team identified concerns in the number of qualified staff resulting from a high staff turnover rate.

During the 3-year review period, six individuals were hired, and six left the program. At the time of the review, the Program had one Health Physicist vacancy. Three of the Health Physicists that were hired during the review period left during the review period; none of which stayed with the Program more than a year. Two of the other Health Physicists that left the program during the review period were fully qualified and had a considerable amount of experience and knowledge in radioactive materials regulation; one of the two has returned as a part-time consultant for secondary reviews of licensing actions. The remaining individual that left the Program during the review period had been with the Program a little over a year; however, the vast majority of that time was spent on military leave.

The staff departures during the review period constituted a high degree of staff turnover relative to the size of the Program. The Program's qualification process cannot keep up with the rate of attrition. Based on the number of facilities licensed by the Program, the Program needs at least three to four fully qualified Health Physicists to handle the Program's workload. At the time of the review, the Program had one Health Physicist that was fully qualified to conduct inspections and perform licensing actions of all types of licenses independently. Two Health Physicists had partial qualifications to conduct inspections of industrial or medical facilities independently. The remaining two Health Physicists each had less than 1 year's experience in the Program and were not qualified to independently conduct inspections or perform licensing actions. The review team noted that the Program Manager encouraged and supported training opportunities, based on availability of NRC-funded training courses.

The lack of qualified staff has hindered the Program's efforts to eliminate the license renewal backlog that was identified as early as the 1995 IMPEP review and is further discussed in Section 3.4 of this report. Given the limited number of qualified individuals, the Program has focused its resources on actions with the greatest health and safety significance: inspections, license amendments, response to incidents and allegations, and special projects. Before the Program can make appreciable progress on the license renewal backlog, the State must address the staff turnover issue to ensure that the Program retains an adequate complement of qualified staff to perform all of its regulatory duties. In the Program's response to the questionnaire, the Program indicated that the reasons for leaving for the majority of the individuals that left the program were low salaries and a lack of a career ladder within the Section. The review team noted that the State was able to boost the starting salary during the review period, albeit temporarily. The boost in salary helped the Program recruit several nuclear medicine technologists that brought with them some knowledge and experience of radioactive materials. Since then, the starting salaries have reverted back to the lesser amount, which could make recruiting for the vacant Health Physicist position difficult given the demand and competition for individuals with radiation safety experience in Arkansas. The review team also noted the lack of a career ladder within the Health Physicist position. The Section has proposed a modification to its Health Physicist Training/Salary Plan that is awaiting the Arkansas Legislative Personnel Committee's review and approval. Under this plan, staff would receive salary increases for the successful completion of training and qualifications.

The review team discussed the staff turnover issue with the staff and various levels of management of the Arkansas Agreement State Program. The review team communicated its concerns with the level of turnover relative to the size of the Program and with the Program's ability to stay current on its other regulatory duties while addressing the license renewal backlog with a limited number of qualified inspectors and license reviewers. The review team stressed the importance of addressing the staff turnover issue to ensure the long-term health of the Arkansas Agreement State Program. The review team recommends that the State take additional actions, such as increasing salary and/or benefits, to stabilize staffing and ensure successful program implementation.

Given the high rate of turnover in the Program, the review team discussed with the various levels of management in the Arkansas Agreement State Program the value of implementing a knowledge management program. The review team observed that many of the Program's policies and procedures did not reflect current practices and were in need of revision. Updated policies and procedures are a first-line method of training new staff on the Program's operations. As an example of where the Program could have benefited from updated or new procedures, the review team noted that the Program had general inspection guidance, but did not have inspection guidance for specific license types. Due to the lack of specific inspection guidance, new staff members are dependent on NRC courses and accompaniments of more senior inspectors to learn inspection techniques for specific license types. The review team discussed with the Program using NRC's or another Agreement State's already developed inspection guidance to minimize the resource burden on developing new procedures. The review team also communicated the value of reviewing the Program's practices during the revisions of the procedures to evaluate effectiveness and streamline processes where possible. The review team recommends that the State update its existing procedures and develop new procedures, if necessary, to memorialize the policies and practices of the Agreement State program and to serve as a knowledge management tool.

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

3.2 Status of Materials Inspection Program

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

As noted in Section 2.0 of this report, the Program revised its inspection frequencies during the review period. The review team verified that Arkansas's inspection frequencies for all types of radioactive material licenses are at least the same as the frequencies listed in IMC 2800.

During the review period, the Program conducted a total of 99 routine inspections of high priority (Priority 1, 2, and 3) licensees. Of these 99 inspections, the review team identified 13 inspections that were conducted overdue by more than 25 percent of the inspection frequency prescribed by IMC 2800. The review team did not identify any inspections that were overdue at the time of the review. The review team also evaluated the Program's timeliness for conducting initial inspections. The review team noted that the Program conducted 20 initial inspections during the review period, of which 1 was conducted greater than 12 months after license issuance. As required by IMC 2800, initial inspections should be conducted within 12 months of license issuance. The review team verified that there were no overdue initial inspections at the time of the review. Overall, the review team calculated that the Program performed 12 percent of all Priority 1, 2, and 3 and initial inspections overdue during the review period. Because the inspection backlog was eliminated by the time of the review, the review team did not make a recommendation to address the timeliness of inspections, although performance over the review period needed improvement.

The review team evaluated the Program's timeliness of issuance of inspection findings. The Program has a goal of completing inspection reports within 30 days of the final date of the inspection. The Program dispatches all inspection findings from the office via letter. Of the 26 inspection findings letters reviewed by the team, 9 were issued beyond the 30-day goal. The letters were issued anywhere between 5 and 153 days beyond the 30-day goal. The reasons for the late inspection findings were workload or extenuating circumstances. In all cases, the licensees were made aware of the inspectors' preliminary findings during the exit meetings. The review team found that the late inspection reports occurred throughout the review period and, therefore, could not deduce a performance trend. The review team initially considered a recommendation to address the number of late inspection findings, an area needing improvement; however, the review team believes that the knowledge management recommendation in Section 3.1 will require the Program to evaluate its process for dispatching inspection findings.

During the review period, the Program granted 61 reciprocity licenses that were candidates for inspection based upon the criteria in IMC 1220, "Processing of NRC Form 241 and Inspection of

Agreement State Licensees Operating under 10 CFR 150.20.” IMC 1220 requires on-site inspection of 20 percent of candidate licensees operating under reciprocity. The review team determined that the Program inspected 19 (31 percent) of the candidate reciprocity licensees during the review period. The review team noted that the performance of reciprocity inspections was more frequent toward the beginning of the review period; however, the review team also noted that the Program used a risk-informed approach to performing the reciprocity inspections late in the review period. The Program is formally adopting a risk-informed approach via a procedural revision expected to be completed and implemented during Calendar Year 2010. The review team believes that the risk-informed approach puts the appropriate emphasis on the protection of public health and safety and meets the intent of the performance of reciprocity inspections; therefore, the review team did not make a recommendation in this specific area needing improvement.

The review team determined that the Program adequately planned for the initial set of Increased Controls inspections of affected licensees. The review team evaluated the Program’s prioritization methodology and found it acceptable. The Program identified 19 licensees that were subject to the Increased Controls and performed the first round of inspections in a timely manner. Subsequent inspections of Increased Controls licensees evaluated the pertinent aspects of the security measures.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Arkansas’s performance with respect to the indicator, Status of Materials Inspection Program, was satisfactory, but needs improvement.

3.3 Technical Quality of Inspections

The review team evaluated inspection reports, enforcement documentation, inspection field notes, and interviewed the responsible inspector for 26 radioactive materials inspections conducted during the review period. The casework examined included a cross-section of inspections conducted by eight current and former inspectors and covered a wide variety of inspection types involving both initial, and routine inspections. These included industrial radiography, self-shielded irradiator, service provider, positron emission tomography, high dose-rate remote after loader, nuclear pharmacy, diagnostic nuclear medicine, portable gauge, and reciprocity licensees. The review also included both initial and followup Increased Controls inspections. Appendix C lists the inspection casework files reviewed, with case-specific comments.

Based on the evaluation of casework, the review team determined that inspections covered all aspects of the licensees’ radiation safety and security programs. The review team noted that inspection reports were generally thorough, complete, consistent, and of high quality with sufficient documentation to ensure that licensees’ performances with respect to health, safety, and security were acceptable. The review team noted that inspectors were conducting confirmatory reviews of source inventories in the National Source Tracking System for affected licensees. Inspection report documentation supported violations, recommendations made to licensees, unresolved safety issues, and discussions held with licensees during exit interviews.

While on site, the review team evaluated the Program’s handling and storing of sensitive documents. The review team determined that documents containing sensitive information were

maintained and secured in a locked file cabinet, segregated from publicly available information. The review team determined that these files were not subject to Freedom of Information Act-equivalent State law and verified that staff handling the files was aware of the sensitive information and its special handling requirements. The review team found that outgoing correspondence specific to Increased Controls licensees was not always appropriately marked identifying them as containing sensitive information. The review team did not discover any evidence of an inadvertent release or unauthorized disclosure on the part of the Program or any licensees, but recognized the potential for a mistake due to the lack of policy of marking sensitive documents. After discussions between the review team, the Program Manager, and senior staff, the Program committed to clearly marking outgoing sensitive documents.

The Program has a policy of performing supervisor accompaniments of all staff at least annually. The review team verified that the Program Manager conducted supervisory accompaniments of the staff at least annually for each of the years covered by the review period.

The Program maintains a sufficient number and variety of calibrated survey instruments to support the inspection program and to respond to radioactive materials incidents. The Program sends survey instruments to the manufacturer for calibration. The Program receives laboratory support from the Arkansas Department of Health Radiochemistry Laboratory, which performs sample counting and assay services, as needed.

The review team accompanied four of the Program's inspectors in February, September, and October 2009. The inspectors conducted inspections at a diagnostic cardiology office, a non-destructive testing company using moisture density gauges, two hospitals (one performing both iodine-131 therapy and brachytherapy and the other performing only iodine-131 therapy), an industrial radiography facility, and a pool irradiator facility. Two of the inspections included a confirmatory review of source inventories under the National Source Tracking System, and one included a followup review of the Increased Controls. Appendix C lists the inspector accompaniments. The inspectors were prepared for the inspections and were thorough in their audits of the licensees' radiation safety and security programs. The inspectors conducted interviews with appropriate personnel, observed licensed operations, conducted confirmatory measurements, and utilized good health physics practices. The inspectors held entrance and exit meetings with the appropriate level of licensee management. The review team determined that the inspections were adequate to assess radiological health, safety, and security at the licensed facilities.

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

3.4 Technical Quality of Licensing Actions

The review team examined the completed licensing casework and interviewed license reviewers for 35 specific licenses. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequacy of facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of license conditions, and overall technical quality.

The casework was also reviewed for timeliness, use of appropriate correspondence, reference to appropriate regulations, supporting documentation, consideration of enforcement history, pre-licensing visits, peer or supervisory review, and proper signatures.

The licensing casework was selected to provide a representative sample of licensing actions completed during the review period. Licensing actions selected for evaluation included 6 new licenses, 5 renewals, 9 amendments, and 15 license terminations. Files reviewed included a cross-section of license types, including: medical diagnostic and therapy, brachytherapy, gamma knife, industrial radiography, nuclear pharmacies, and industrial licensees. The casework sample represented work from each of the license reviewers. A listing of the licensing casework reviewed, with case-specific comments, can be found in Appendix D.

Licensing actions are all tracked via a database. The information is entered into a database by the clerical staff upon receipt, and then the action is assigned to a license reviewer. There was no backlog of amendments or new applications at the time of the review. The staff responds to new applications and amendment requests in a timely manner, generally within 3 weeks, and issues completed licenses within 30 to 45 days.

The review team found that the Program's considerable license renewal backlog continues to be an issue as identified during previous IMPEP reviews in the years. Of the 226 active licenses, 117 licenses are pending for renewal, which equates to over 50 percent of the Program's licenses. Eighty-six of the renewals have been pending for more than 1 year. The longest pending renewal dated back 10 years. As indicated in Section 2.0, the review team is keeping open the recommendation from the 2002 IMPEP review regarding the development of an action plan to address the license renewal backlog.

Due to the limited licensing experience of the newest staff members, all licensing actions receive a two-person review: one by the initial reviewer and a second by one of the Health Physicists with signature authority. Licenses are usually signed by the Program Manager; the fully qualified Health Physicist can sign a license, if the need arises. The review team noted that the dual review process, although it lengthens the amount of time it takes to complete a licensing action, is a good learning tool for the unqualified staff members.

In general, the review team found that licensing actions were complete with health, safety, and security issues properly addressed. The review team noted several inconsistencies in licensing practices among the staff due to a lack of adherence to or awareness of the Program's licensing guidance. For example, as described in Section 2.0, the review team noted several instances where material dispositions and license terminations were approved without receiving the proper supporting documentation. Additional inconsistencies are noted in case-specific comments on the licensing casework reviewed listed in Appendix D. The review team believes that the Program's licensing guidance will benefit from the knowledge management review of the procedures recommended in Section 3.1.

The review team evaluated the Program's application of the State's financial assurance requirements. At the time of the review, the Program only had one licensee that was authorized possession of radioactive material in excess of the quantities requiring financial assurance. The review team verified that the proper documentation was on file and that the information was appropriately protected.

The review team examined the Program's licensing practices in regard to the Increased Controls and Fingerprinting Orders. The review team noted that the Program added legally binding license conditions to the licenses that met the criteria for implementing the Increased Controls, including fingerprinting, as appropriate. The review team verified that the Program has a means to identify new and amended licenses that should be subject to additional security measures by incorporating the essential objectives of the revised pre-licensing guidance into its licensing program. To meet the other essential objectives of the revised pre-licensing guidance, the Program hand delivers new licenses to ensure that regulatory requirements and licensee commitments are met prior to issuance of the license and receipt of radioactive material.

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

3.5 Technical Quality of Incident and Allegation Activities

In evaluating the effectiveness of the Program's actions in responding to incidents, the review team examined the Program's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Arkansas in the Nuclear Material Events Database (NMED) against those contained in the Programs's files, and evaluated the casework for eight radioactive materials incidents that required reporting to NRC's Headquarters Operations Center. A listing of the casework examined can be found in Appendix E. The review team also looked at a sample of radioactive materials incidents that did not require reporting to ensure that the events were appropriately not reported. To evaluate the Program's response to allegations, the review team examined casework for four allegations involving radioactive materials, including the one allegation that NRC forwarded to the State during the review period and three that the Program received directly.

When notified of an incident or an allegation, the Program Manager and staff discuss the initial response and the need for an on-site investigation, based on the safety significance. When an incident is reported to the Program after office hours, the information is received by a 24-hour operator and forwarded to the Program for appropriate response. If the incident meets the reportability thresholds, as established in the NRC's Office of Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-300 "Reporting Material Events," the Program promptly notifies NRC's Headquarters Operations Center and, often times, NRC Region IV. If the investigation is complex and extends over a period of time, the Headquarters Operations Center and NMED are appropriately notified of any updates. The Program does not use the NMED software to provide initial entries or updates to NMED. Instead, the Program relies on NRC's Headquarters Operations Center to provide initial reports and updates to NRC's contractor responsible for maintaining NMED. The Program responds directly to any requests for additional information from NRC's contractor responsible for maintaining NMED. Of the incidents evaluated by the review team, all had been reported to NRC within the required time frame and been properly completed in NMED.

The incidents selected for review included lost or stolen radioactive material, damaged equipment, and transportation events. The review team determined that the Program's responses to incidents were thorough, complete, and comprehensive. Initial responses were prompt and well coordinated, and the level of effort was commensurate with the health and

safety significance. The Program immediately dispatched inspectors to the site when the possibility of an immediate threat to public health and safety existed. When no immediate threat was present and the Program determined that the licensee had qualified, competent individuals investigating the incident, the Program responded telephonically or conducted an on-site followup inspection at the next inspection.

In evaluating the effectiveness of the Program's response to allegations, the review team evaluated the casework for four allegations. The review team concluded that the Program consistently took prompt and appropriate action in response to concerns raised. The review team noted that the Program thoroughly documented the investigations and retained all necessary documentation to appropriately close the allegations. The Program notified the alлегers of the conclusion of the investigations. The review team noted that Arkansas law requires that all public documents be made available for inspection and copying unless specifically exempted from disclosure under the State's Freedom of Information statutes. The State makes every effort to protect an alлегer's identity, but the Program cannot fully guarantee anonymity. During the initial telephone contact, the alлегer is advised that their anonymity cannot be guaranteed.

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

4.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State Programs: (1) Compatibility Requirements, (2) Sealed Source and Device Evaluation Program, (3) Low-level Radioactive Waste Disposal Program, and (4) Uranium Recovery Program. NRC's Agreement with the State of Arkansas does not relinquish authority to regulate a sealed source and device evaluation program or a uranium recovery program, so only the first and the third non-common performance indicators were applicable to this review.

4.1 Compatibility Requirements

4.1.1 Legislation

Arkansas became an Agreement State on July 1, 1963. Legislative authority to create a radiation control agency and enter into an Agreement with NRC was granted in the "Arkansas Code of 1987 Annotated, Volume 20A, Title 20, Chapter 21." The Department is designated as the State's radiation control agency. The review team noted that no significant legislation affecting the radiation control agency's authority was passed since the previous review.

4.1.2 Program Elements Required for Compatibility

Arkansas's regulation for the control of radiation is found in the Rules and Regulations for Control of Sources of Ionizing Radiation of the Arkansas State Board of Health and apply to all ionizing radiation, whether emitted from radionuclides or devices. Arkansas requires a license for possession and use of all radioactive materials. Arkansas also requires registration of all machines specifically designed to produce x-rays or other ionizing radiation.

The review team examined the procedures used in the State's rulemaking process and found that, through the use of public comment periods, the public and other interested parties are offered an opportunity to comment on proposed regulation changes. Draft regulations are sent to NRC for review and comment and those comments are incorporated, as necessary, prior to final adoption. Rule packages prepared by the Program require a review by the Arkansas Administrative Rules and Regulations Subcommittee of the Arkansas Legislative Council. A second administrative review is conducted by the House and Senate Interim Committees on Public Health, Welfare & Labor of the Arkansas General Assembly. Subsequent to those reviews, final approval must be obtained from the Arkansas State Board of Health. The review team noted that the State has emergency rule capability for situations where public health and safety are at risk. Arkansas's rules and regulations are not subject to "sunset" laws, and the Program 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 Program's response to the questionnaire relative to this indicator, reviewed the status of regulations required to be adopted by the Program under the Commission's adequacy and compatibility policy, and verified the adoption of regulations with data obtained from the State Regulation Status Data Sheet that FSME maintains.

NRC policy requires Agreement States to adopt certain equivalent regulations or legally binding requirements no later than 3 years after NRC's amended regulations become effective, unless otherwise mandated by the Commission. The following five amendments are overdue for adoption:

- "Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material," 10 CFR Parts 30, 31, and 32 amendment (65 FR 79162), that was due for Agreement State implementation on February 16, 2004.
- "Compatibility with IAEA Transportation Safety Standards and Other Transportation Safety Amendments," 10 CFR Part 71 amendment (69 FR 3697), that was due for Agreement State implementation on October 1, 2007.
- "Medical Use of Byproduct Materials - Recognition of Specialty Boards - Part 35," 10 CFR Part 35 amendment (70 FR 16336 and 71 FR 1926), that was due for Agreement State implementation on April 29, 2008.
- "National Source Tracking System," 10 CFR Part 20 amendment (71 FR 65865, 72 FR 59162), that was due for Agreement State implementation on January 31, 2009.
- "Minor Amendments," 10 CFR Parts 20, 30, 32, 35, 40, and 70 amendment (71 FR 15005), that was due for Agreement State implementation on March 27, 2009.

The review team also identified future regulation changes that, while not yet due for adoption, have been included in a rulemaking package that also includes the overdue regulations listed above. The Program anticipated that this rulemaking package would be finalized at the

Arkansas Board of Health's January 2010 meeting. The future regulation changes identified by the review team included:

- "Medical Use of Byproduct Material – Minor Corrections and Clarification," 10 CFR Parts 32 and 35 amendment (72 FR 45147, 54207), that is due for Agreement State implementation by October 29, 2010.
- "Exemption From Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements," 10 CFR Parts 30, 31, 32, 150 amendment (72 FR 58473), that is due for Agreement States implementation by December 17, 2010.
- "Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent," 10 CFR Parts 19 and 20 amendment (72 FR 68043), that is due for Agreement State implementation by February 15, 2011.

The review team identified the following future regulation change that needs to be addressed by the Program in a future rulemaking or by adopting alternate legally binding requirements:

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

The review team also identified eight regulations that were sent to NRC for final review and were returned with comments; however, NRC did not receive notification that comments had been resolved prior to being incorporated into State regulations. Subsequent to review, the Program was locating the regulation packages to resubmit to NRC for a final compatibility review. At the time of publication of this report, NRC had not received documentation to resolve the outstanding comments on Arkansas's final regulations.

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

4.2 Low-level Radioactive Waste Disposal Program

In 1981, 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 low-level radioactive waste (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 the Arkansas Agreement State Program has authority to regulate a LLRW disposal facility, 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, it is expected to put in place a regulatory program that will meet the criteria for an adequate and compatibility LLRW program. There are no plans for a LLRW disposal facility in Arkansas. Accordingly, the review team did not review this indicator.

5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, Arkansas's performance was found satisfactory for three performance indicators reviewed; satisfactory, but needs improvement for the performance indicators Status of Materials Inspection Program and Technical Quality of Licensing Actions; and unsatisfactory for the performance indicator Technical Staffing and Training. The review team made two recommendations regarding program performance and kept two recommendations open from previous reviews. Overall, the review team recommended, and the MRB agreed, that the Arkansas Agreement State Program is adequate to protect public health and safety, but needs improvement, and compatible with NRC's program.

Due to the longstanding license renewal backlog, the review team considered recommending to the MRB that the State be placed on probation. The review team weighed this option against recommending extension of the period of heightened oversight. The review team ultimately concluded that, although there are areas of program performance needing improvement, the Program is adequately protecting public health and safety and places the appropriate emphasis on the protection of public health and safety. The review team also took commitments made by the Program into consideration when deciding on a recommendation for the appropriate course of action. In consultation with NRC managers, the review team reached the following recommendation: the review team recommended that the Arkansas Agreement State Program remain on heightened oversight. The MRB agreed with the review team's recommendation. Based on the results of the current IMPEP review, the review team recommends that a followup review take place in approximately 1 year.

Below are the recommendations, as mentioned earlier in the report, for evaluation and implementation by the State:

1. The review team recommends that the State take additional actions, such as increasing salary and/or benefits, to stabilize staffing and ensure successful program implementation. (Section 3.1)
2. The review team recommends that the State update its existing procedures and develop new procedures, if necessary, to memorialize the policies and practices of the Agreement State program and to serve as a knowledge management tool. (Section 3.1)
3. The review team recommends that the State develop and implement an action plan to reduce the licensing renewal backlog. (Section 3.4 of the 2002 IMPEP Report)
4. The review team recommends that the State develop and implement a license termination procedure to ensure consistent and acceptable quality of information requests and documentation. (Section 3.4 of the 2006 IMPEP Report)

LIST OF APPENDIXES AND ATTACHMENT

Appendix A	IMPEP Review Team Members
Appendix B	Arkansas Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews
Attachment	January 4, 2010 Letter from Charles McGrew Arkansas's Response to Draft IMPEP Report

APPENDIX A

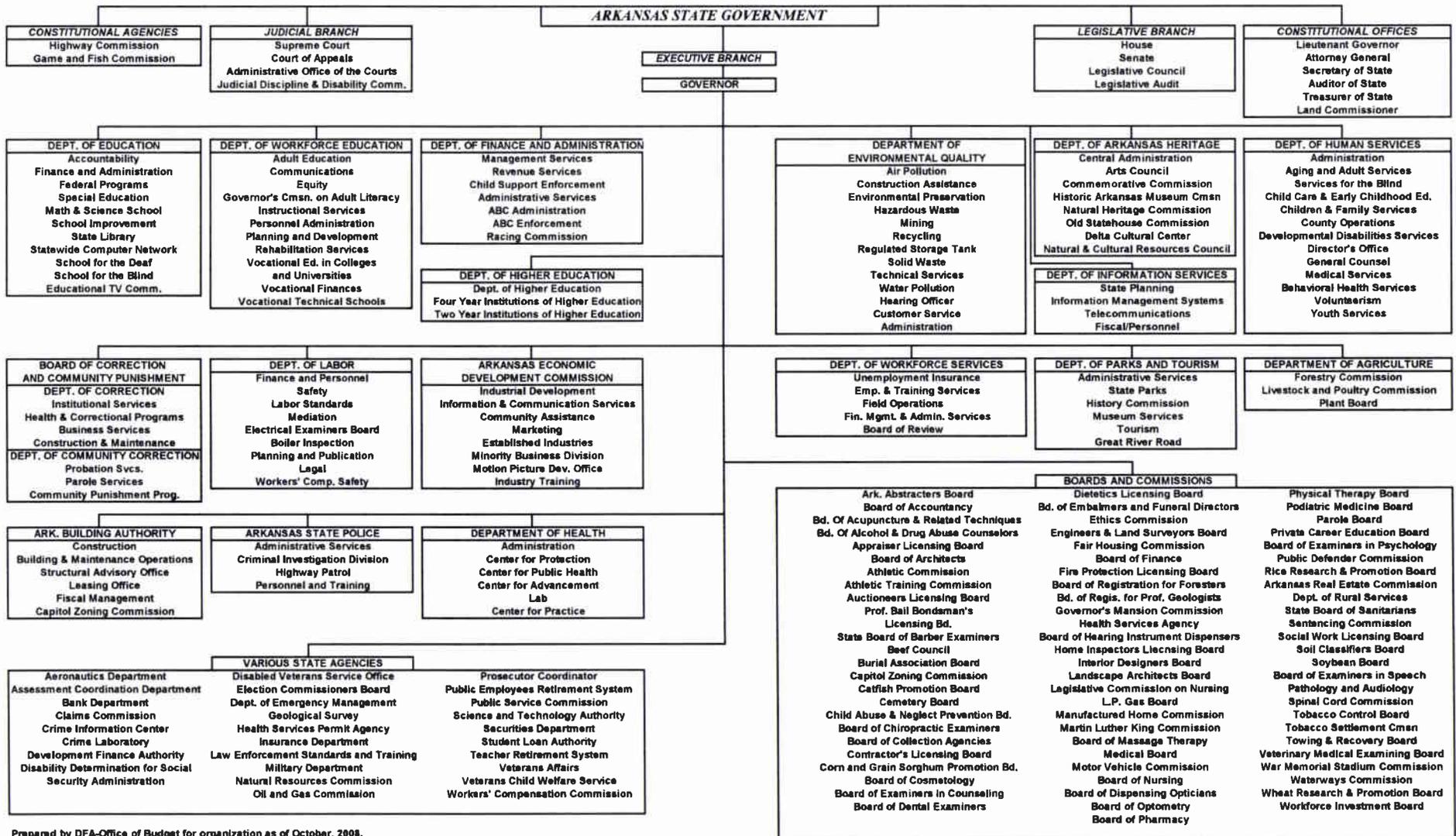
IMPEP REVIEW TEAM MEMBERS

Name	Area of Responsibility
Aaron McCraw, FSME	Team Leader Technical Staffing and Training Technical Quality of Incident and Allegation Activities
Louise Roehrich, ND	Status of Materials Inspection Program
Randy Erickson, Region IV	Technical Quality of Inspections Compatibility Requirements Inspector Accompaniments
Shirley Xu, FSME	Technical Quality of Licensing Actions

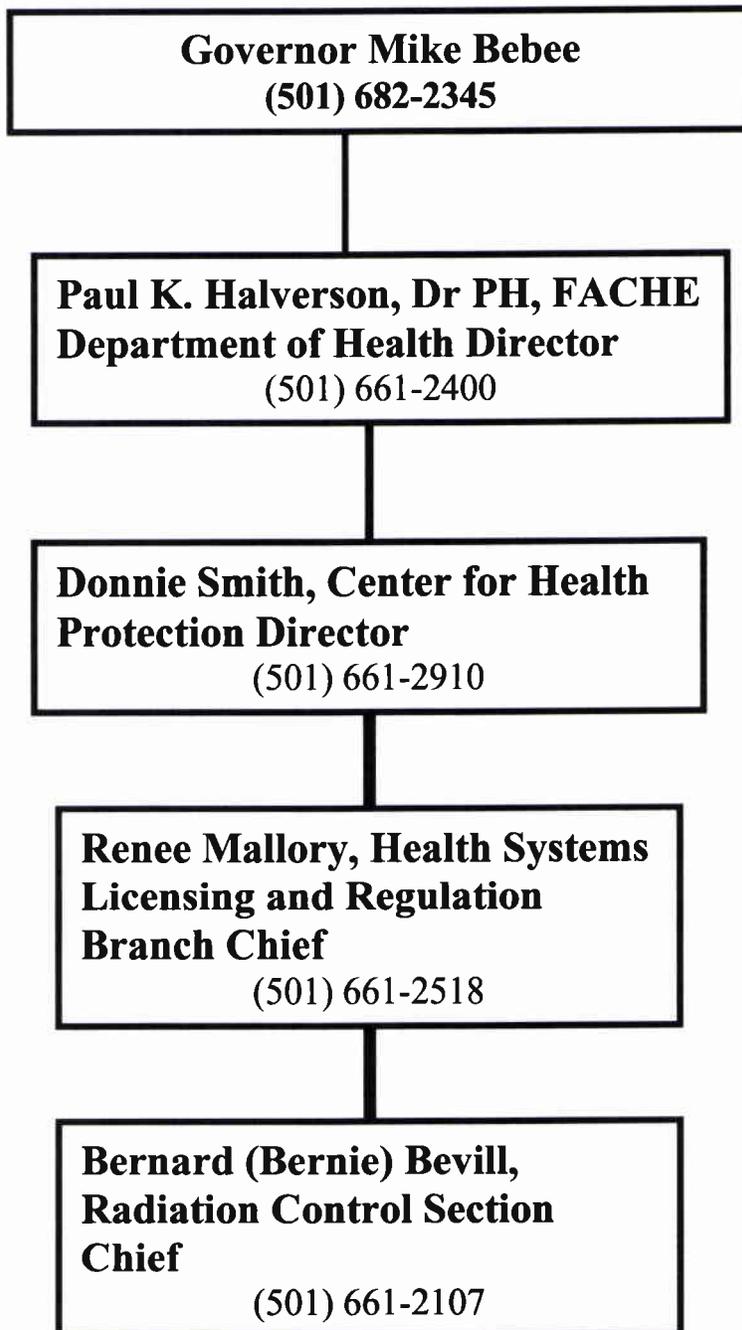
APPENDIX B

ARKANSAS ORGANIZATION CHARTS

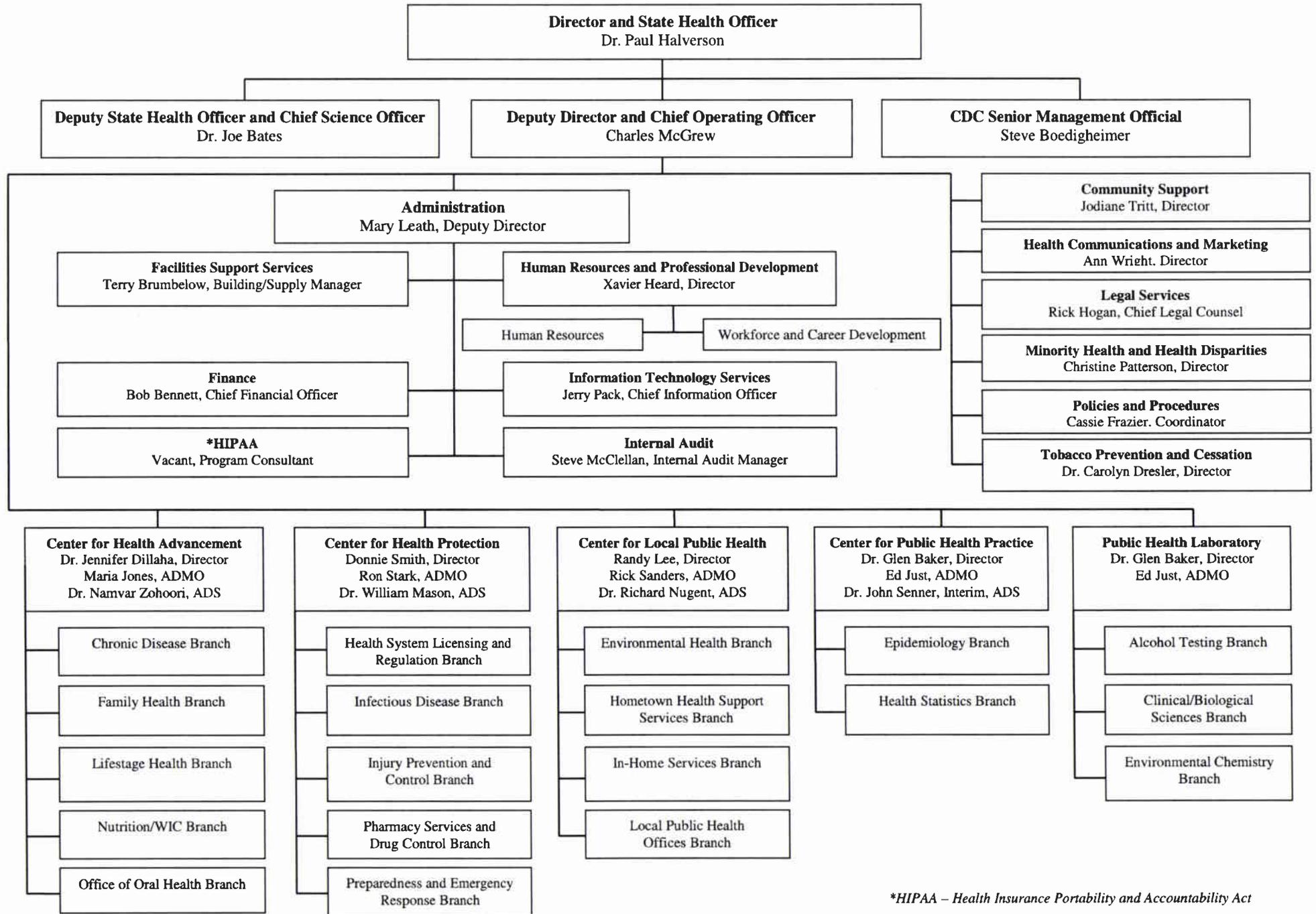
ADAMS Accession No.: ML093220088



Organization Chart from Governor to Program Director



ARKANSAS DEPARTMENT OF HEALTH



**HIPAA – Health Insurance Portability and Accountability Act*

**Department of Health
Radiation Control Section**

**Bernie Bevill, ADH Public Health
Section Chief III**

22109693 L025C/C123

Vacant, Budget Specialist

22106759 R027C/C117

Lucile Humes, Administrative Specialist II

22106605 C073C/C109

**Jared Thompson, Health Physicist
Supervisor (Radioactive Material
Program)**

22105717 B044C/C121

Katia Gray, Health Physicist

22105032 B063C/C119

Tammy Kriesel, Health Physicist

22106796 B063C/C119

Angela Minden, Health Physicist

22105697 B063C/C119

Kayla Avery, Health Physicist

22105862 B063C/C119

Robert Pemberton, Health Physicist

22105772 B063C/C119

Steve Mack, Health Physicist

22106313 B063C/C119

Sandra Krause, Administrative
Specialist III

22104773 C056C/C112

Kim Wiebeck, Extra Help

22076921 9999,9999

David Snellings, Extra Help

22112197 9999,9999

**Valerie Brown, Health Program Specialist II
(Radiologic Technologist Licensure Program)**

22131671 L048C/C118

Rita Price, Administrative Specialist III

22105910 C056C/C112

Glynis Elmore, Administrative Specialist II

22104727 C073C/C109

**Sherry Davidson, Health
Physicist Supervisor (X-ray and
Mammography Programs)**

22105061 B044C/C121

Susan Dooley, Health Physicist

22106310 B063C/C119

Toni Mullens, Health Physicist

22105428 B063C/C119

David Stephens, Health Physicist

22106551 B063C/C119

Wayne Wright, Health Physicist

22107001 B063C/C119

Melinda Davis, Health Physicist

22105104 B063C/C119

Terri Hinson, Health Physicist

22104916 B063C/C119

Ruby Forrest, Administrative
Specialist III

22107005 C056C/C112

APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY.

File No.: 1

Licensee: Arkansas Cardiac Care, P.C.
Inspection Type: Routine, Unannounced
Inspection Date: 2/25/09

License No.: ARK-996-BP-01-13
Priority: 5
Inspector: TK

File No.: 2

Licensee: Grubs, Hoskyn, Barton & Wyatt, Inc.
Inspection Type: Routine, Announced
Inspection Date: 2/26/09

License No.: ARK-0456-03121
Priority: 5
Inspector: LP

Comment:

The Program issued the letter conveying inspection findings to the licensee 5 days beyond 30-day issuance goal.

File No.: 3

Licensee: St. Mary's Regional Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 9/14/09

License No.: ARK-0390-02120
Priority: 3
Inspector: TK

File No.: 4

Licensee: St. Joseph's Mercy Health Center
Inspection Type: Routine, Unannounced
Inspection Date: 9/15/09

License No.: ARK-0346-02120
Priority: 3
Inspector: KG

File No.: 5

Licensee: Sterigenics US, LLC
Inspection Type: Routine, Unannounced
Inspection Date: 9/17/09

License No.: ARK-903-03521
Priority: 1
Inspector: SM

File No.: 6

Licensee: Desert Industrial X-ray
Inspection Type: Special, Announced
Inspection Date: 10/26/09

License No.: ARK-1010-03320
Priority: 1
Inspector: LP

File No.: 7

Licensee: Varian Medical Systems, Inc.
Inspection Type: Reciprocity, Unannounced
Inspection Date: 4/1/09

License No.: REC-247
Priority: 1
Inspectors: SM, KA, AM

Comment:

The Program issued the letter conveying inspection findings to the licensee 22 days beyond 30-day issuance goal.

File No.: 8

Licensee: CARTI Mountain Home
Inspection Type: Routine Unannounced
Inspection Date: 12/3/08

License No.: ARK-0645-02230
Priority: 2
Inspectors: TK, SM

Comment:

The Program issued the letter conveying inspection findings to the licensee 18 days beyond 30-day issuance goal.

File No.: 9

Licensee: Baptist Medical Center
Inspection Type: Routine, Announced
Inspection Date: 2/6/08

License No.: ARK-0058-02120
Priority: 3
Inspectors: KG

File No.: 10

Licensee: J. Christy Construction, Inc.
Inspection Type: Routine, Announced
Inspection Date: 2/27/09

License No.: ARK-1013-03121
Priority: 2
Inspectors: KG, AM

File No.: 11

Licensee: National Park Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 4/30/09

License No.: ARK-0431-02120
Priority: 3
Inspectors: SM, AM

Comment:

The Program issued the letter conveying inspection findings to the licensee 16 days beyond 30-day issuance goal.

File No.: 12

Licensee: B&F Engineering, Inc.
Inspection Type: Routine, Unannounced
Inspection Date: 7/10/09

License No.: ARK-0703-03121
Priority: 3
Inspectors: JT, TK

File No.: 13

Licensee: Midwest Inspection Services
Inspection Type: Reciprocity, Unannounced
Inspection Date: 4/9/09

License No.: REC-366
Priority: 1
Inspectors: LP, AM

File No.: 14

Licensee: Cardinal Health
Inspection Type: Routine, Unannounced
Inspection Date: 8/25/09

License No.: ARK-642-AP-BP-12-09
Priority: 2
Inspectors: SM, TK

File No.: 15

Licensee: Rogers Group, Inc.
Inspection Type: Routine, Unannounced
Inspection Date: 12/28/08

License No.: ARK-0784-03121
Priority: 2
Inspector: LP

Comment:

The Program issued the letter conveying inspection findings to the licensee 153 days beyond 30-day issuance goal.

File No.: 16

Licensee: Great Lakes Chemical Corp.
Inspection Type: Routine, Unannounced
Inspection Dates: 3/29-4/5/07

License No.: ARK-0515-03120
Priority: 4
Inspector: SM

Comment:

The Program issued the letter conveying inspection findings to the licensee 36 days beyond 30-day issuance goal.

File No.: 17

Licensee: Clean Harbors El Dorado, LLC.
Inspection Type: Routine, Unannounced
Inspection Date: 2/27/09

License No.: ARK-0557-03120
Priority: 5
Inspectors: KG, AM

File No.: 18

Licensee: 3D Imaging Drug Design
Inspection Type: Initial, Announced
Inspection Date: 1/29/09

License No.: ARK-1008-03214
Priority: 1
Inspectors: SM, TK

Comment:

The Program issued the letter conveying inspection findings to the licensee 38 days beyond 30-day issuance goal.

File No.: 19

Licensee: Baker Atlas
Inspection Type: Routine, Unannounced
Inspection Date: 2/1/08

License No.: ARK-668-BP-04-00
Priority: 3
Inspectors: SM, VW

File No.: 20

Licensee: Health Park Hospital
Inspection Type: Routine, Unannounced
Inspection Date: 5/29/08

License No.: ARK-0933-02120
Priority: 3
Inspectors: KG, TK

File No.: 21

Licensee: Baptist Health Medical Center - NLR
Inspection Type: Routine, Unannounced
Inspection Date: 3/21/08

License No.: ARK-0409-02120
Priority: 3
Inspectors: JT, VW

Comment:

The Program issued the letter conveying inspection findings to the licensee 12 days beyond 30-day issuance goal.

File No.: 22

Licensee: Cat Clinic of Conway
Inspection Type: Routine, Unannounced
Inspection Dates: 1/23/08

License No.: ARK-945-02400
Priority: 4
Inspectors: SM, VW

File No.: 23

Licensee: PETNET Solutions, Inc.
Inspection Type: Initial, Announced
Inspection Date: 1/14/08

License No.: ARK-1007-02201
Priority: 4
Inspectors: JT, VW

File No.: 24

Licensee: Michael A. Fraiss, MD
Inspection Type: Routine, Unannounced
Inspection Date: 3/14/08

License No.: ARK-932-BP-08-08
Priority: 3
Inspector: VW

File No.: 25

Licensee: Jet Asphalt & Rock Company, Inc.
Inspection Type: Routine, Unannounced
Inspection Date: 9/15/06

License No.: ARK-754-BP-03-00
Priority: 4
Inspector: SM

Comment:

The Program issued the letter conveying inspection findings to the licensee 32 days beyond 30-day issuance goal.

File No.: 26

Licensee: Materials Testing of Arkansas
Inspection Type: Routine, Unannounced
Inspection Date: 3/13/09

License No.: ARK-00-11-0616-01
Priority: 5
Inspectors: SM, KG

INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1

Licensee: Arkansas Cardiac Care, P.C.
Inspection Type: Routine, Unannounced
Inspection Date: 2/25/09

License No.: ARK-996-BP-01-13
Priority: 5
Inspector: TK

Accompaniment No.: 2

Licensee: Grubs, Hoskyn, Barton & Wyatt, Inc.
Inspection Type: Routine, Announced
Inspection Date: 2/26/09

License No.: ARK-0456-03121
Priority: 5
Inspector: LP

Accompaniment No.: 3

Licensee: St. Mary's Regional Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 9/14/09

License No.: ARK-0390-02120
Priority: 3
Inspector: TK

Accompaniment No.: 4

Licensee: St. Joseph's Mercy Health Center
Inspection Type: Routine, Unannounced
Inspection Date: 9/15/09

License No.: ARK-0346-02120
Priority: 3
Inspector: KG

Accompaniment No.: 5

Licensee: Sterigenics US, LLC
Inspection Type: Routine, Unannounced
Inspection Date: 9/17/09

License No.: ARK-903-03521
Priority: 1
Inspector: SM

Accompaniment No.: 6

Licensee: Desert Industrial X-ray
Inspection Type: Special, Announced
Inspection Date: 10/26/09

License No.: ARK-1010-03320
Priority: 1
Inspector: LP

APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY.

File No.: 1

Licensee: Mena Regional Health System

Type of Action: Renewal

Date Issued: 8/18/09

License No.: ARK-0915-02121

Amendment No.: 7

License Reviewers: TK, KW

Comment:

The Program issued the renewed license 5 years after the licensee submitted its renewal application.

File No.: 2

Licensee: Arkansas Tech University

Type of Action: Renewal

Date Issued: 1/30/09

License No.: ARK-0016-01120

Amendment No.: 23

License Reviewers: KG, DS

Comment:

The Program issued the renewed license 3 years after the licensee submitted its renewal application.

File No.: 3

Licensee: Cardiology and Medicine Clinic, P.A.

Type of Action: Renewal

Date Issued: 5/27/08

License No.: ARK-0806-02201

Amendment No.: 12

License Reviewers: NS, KG

Comments:

- a) The Program issued the renewed license 7 years after the licensee submitted its renewal application.
- b) The renewed license was give a 5-year expiration date instead of a 7-year expiration date in accordance with internal Program policy for renewed licenses.

File No.: 4

Licensee: J. Christy Construction, Inc.

Type of Action: New

Date Issued: 8/11/08

License No.: AKR-1013-03121

Amendment No.: 0

License Reviewers: NS, JT

File No.: 5

Licensee: Subsurface Xplorations, LLC.

Type of Action: New

Date Issued: 10/22/09

License No.: ARK-1018-03212

Amendment No.: 0

License Reviewers: LP, DS

File No.: 6

Licensee: Delta Memorial Hospital
Type of Action: Amendment
Date Issued: 11/25/08

License No.: ARK-0828-02120
Amendment No.: 11
License Reviewer: KA

Comments:

- a) The file did not contain documentation of the verification of the Assistant Radiation Safety Officer's (ARSO) training and experience.
- b) The ARSO was added to the license with a cover letter. Other ARSOs were added directly to other licenses.

File No.: 7

Licensee: Southwest Regional Medical Center
Type of Action: Termination
Date Issued: 7/7/08

License No.: ARK-726-BP-10-10
Amendment No.: 32
License Reviewer: VW

File No.: 8

Licensee: Central Arkansas Cardiology
Type of Action: Termination
Date Issued: 6/4/08

License No.: ARK-0842-BP-05-01
Amendment No.: 12
License Reviewers: NS, SM

File No.: 9

Licensee: Corporate Testing, Inc.
Type of Action: Termination
Date Issued: 3/4/06

License No.: ARK-0913-BP-07-04
Amendment No.: 7
License Reviewer: KW

File No.: 10

Licensee: Heart Clinic Arkansas
Type of Action: Amendment
Date Issued: 9/18/09

License No.: ARK-0829-02121
Amendment No.: 18
License Reviewer: LP

File No.: 11

Licensee: Richard Baughn Construction, Inc.
Type of Action: Termination
Date Issued: 4/25/08

License No.: ARK-0863-BP-03-02
Amendment No.: 6
License Reviewer: LP

Comment:

Documentation in the file had conflicting information regarding source disposition.

File No.: 12

Licensee: Nucor-Yamato Steel Company
Type of Action: Renewal
Date Issued: 1/30/08

License No.: ARK-0722-03120
Amendment No.: None
License Reviewers: NS, DS

Comments:

- a) The Program issued the renewed license 11 years after the licensee submitted its renewal application.
- b) No amendment number was assigned to this licensing action. Previous amendment number was 12.

File No.: 13

Licensee: Arkansas Methodist Medical Center
Type of Action: Amendment
Date Issued: 9/18/09

License No.: ARK-0355-02120
Amendment No.: 55
License Reviewer: TK

File No.: 14

Licensee: Washington Group International, Inc.
Type of Action: Amendment
Date Issued: 4/3/09

License No.: ARK-0837-03320
Amendment No.: 12
License Reviewer: JT

File No.: 15

Licensee: Calfrac Well Services Corporation
Type of Action: New
Date Issued: 4/16/08

License No.: ARK-1005-03121
Amendment No.: 0
License Reviewers: NS, DS

File No.: 16

Licensee: Schlumberger Technology Corporation
Type of Action: Renewal
Date Issued: 12/20/08

License No.: ARK-0657-03110
Amendment No.: 29
License Reviewers: CB

Comment:

The Program issued the renewed license 9 years after the licensee submitted its renewal application.

File No.: 17

Licensee: Central Arkansas Hospital
Type of Action: Termination
Date Issued: 8/22/06

License No.: ARK-680-BP-09-10
Amendment No.: 34
License Reviewer: KW

File No.: 18

Licensee: Shaw Mid-States Pipe Fabricating, Inc.
Type of Action: Amendment
Date Issued: 7/8/09

License No.: ARK-0749-03310
Amendment No.: 3
License Reviewers: NS, DS

File No.: 19

Licensee: Desert Industrial X-Ray L.P.
Type of Action: Amendment
Date Issued: 9/17/09

License No.: ARK-1010-03320
Amendment No.: 5
License Reviewer: KA

File No.: 20

Licensee: Eureka Construction, LLC
Type of Action: New
Date Issued: 7/30/08

License No.: ARK-1015-03121
Amendment No.: 0
License Reviewers: NS, DS

File No.: 21

Licensee: West Memphis PET Imaging Center, LLC
Type of Action: New
Date Issued: 8/17/07

License No.: ARK-1007-02201
Amendment No.: 0
License Reviewer: KG

File No.: 22

Licensee: Proscan Imaging of Arkansas
Type of Action: New
Date Issued: 8/17/06

License No.: ARK-1002-BP-08-13
Amendment No.: 0
License Reviewers: KG, KW

Comment:

This new license was given a 7-year expiration date instead of a 5-year expiration date in accordance with internal Program internal policy for new licenses.

File No.: 23

Licensee: St. Bernards Medical Center
Type of Action: Amendment
Date Issued: 10/15/09

License No.: ARK-0365-02230
Amendment No.: 106
License Reviewer: TK

File No.: 24

Licensee: InSight Health Corp.
Type of Action: Amendment
Date Issued: 2/14/07

License No.: ARK-0994-02220
Amendment No.: 1
License Reviewer: KW

File No.: 25

Licensee: City of Jonesboro
Type of Action: Termination
Date Issued: 6/27/08

License No.: ARK-0810-BP-01-11
Amendment No.: 8
License Reviewer: LP

File No.: 26

Licensee: Georgia-Pacific LLC
Type of Action: Amendment
Date Issued: 9/21/09

License No.: ARK-0321-03120
Amendment No.: 71
License Reviewers: KA,KG

Comment:

The file did not contain documentation of the verification of the Radiation Safety Officer's (RSO) experience. The RSO's training record was verified.

File No.: 27

Licensee: Newpark Resources, Inc.

Type of Action: Termination

Date Issued: 12/6/06

License No.: ARK-833-NORM-02-08

Amendment No.: 5

License Reviewer: KW

Comment:

The file did not contain documentation for the decommissioning plan and radioactive material disposal.

File No.: 28

Licensee: Cenark Project Management Services, Inc.

Type of Action: Termination

Date Issued: 10/12/06

License No.: ARK-1001-BP-05-13

Amendment No.: 1

License Reviewer: KW

Comments:

- a) Decommissioning survey documentation was not submitted with the licensee's termination request.
- b) The file did not contain documentation for source dispositions.

File No.: 29

Licensee: Shannon & Wilson, Inc.

Type of Action: Termination

Date Issued: 12/18/06

License No.: ARK-977-BP-06-10

Amendment No.: 2

License Reviewer: KW

File No.: 30

Licensee: Professional Service Industries, Inc.

Type of Action: Termination

Date Issued: 12/14/06

License No.: ARK-732-BP-12-09

Amendment No.: None

License Reviewer: SM

Comment:

An amendment number was not listed on the license.

File No.: 31

Licensee: Granite Construction Company

Type of Action: Termination

Date Issued: 12/8/06

License No.: ARK-993-BP-08-10

Amendment No.: 4

License Reviewer: KW

Comment:

Source disposition paperwork was not submitted with the licensee's termination request.

File No.: 32

Licensee: Forsgren, Inc.

Type of Action: Termination

Date Issued: 2/9/07

License No.: ARK-946-BP-06-09

Amendment No.: 1

License Reviewer: SM

File No.: 33

Licensee: Environment Management Services, Inc.

Type of Action: Termination

Date Issued: 11/21/08

License No.: ARK-0921-03121

Amendment No.: 9

License Reviewer: KA

File No.: 34

Licensee: Baptist Health Nuclear Imaging West

Type of Action: Termination

Date Issued: 6/14/07

License No.: ARK-967-BP-12-10

Amendment No.: 2

License Reviewers: KG, SM

File No.: 35

Licensee: Richard Foods, Inc.

Type of Action: Termination

Dates Issued: 8/10/07

License No.: ARK-706-BP-07-09

Amendment No.: 2

License Reviewer: SM

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY.

File No.: 1

Licensee: Material Testing of Arkansas, Inc.

Date of Incident: 2/19/07

Investigation Date: 2/20/07

License No.: AR-859

NMED Log No.: 070098

Type of Incident: Lost/Stolen Material

Type of Investigation: Site

File No.: 2

Licensee: APAC Arkansas, Inc.

Date of Incident: 9/27/07

Investigation Date: 9/27/07

License No.: AR-0686-03120

NMED Log No.: 070603

Type of Incident: Damaged Equipment

Type of Investigation: Site

File No.: 3

Licensee: Tigie Construction

Date of Incident: 3/31/08

Investigation Date: N/A

License No.: AR-867

NMED Log No.: 080199

Type of Incident: Lost/Stolen Material

Type of Investigation: None

File No.: 4

Licensee: Building & Earth Sciences

Date of Incident: 7/14/08

Investigation Date: N/A

License No.: AR-918

NMED Log No.: 080469

Type of Incident: Transportation

Type of Investigation: None

File No.: 5

Licensee: Nucor Steel Company

Date of Incident: 2/11/09

Investigation Date: N/A

License No.: AR-0786-03120

NMED Log No.: 090222

Type of Incident: Damaged Equipment

Type of Investigation: None

File No.: 6

Licensee: Albemarle Corp.

Date of Incident: 5/19/09

Investigation Date: 6/11/09

License No.: AR-0717-03120

NMED Log No.: 090507

Type of Incident: Damaged Equipment

Type of Investigation: Site

File No.: 7

Licensee: Shaw Mid-States Pipe Fabricating

Date of Incident: 6/2/09

Investigation Date: 6/2/09

License No.: ARK-0749-03310

NMED Log No.: 090529

Type of Incident: Damaged Equipment

Type of Investigation: Site

File No.: 8

Licensee: Baker Atlas

Date of Incident: 8/13/09

Investigation Date: 8/17/09

License No.: AR-0668-03110

NMED Log No.: 090666

Type of Incident: Transportation

Type of Investigation: Site

ATTACHMENT

January 4, 2010 Letter from Charles McGrew
Arkansas's Response to Draft IMPEP Report

ADAMS Accession No.: ML100050195



Arkansas Department of Health

4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000

Governor Mike Beebe

Paul K. Halverson, DrPH, FACHE, Director and State Health Officer

January 4, 2010

Aaron T. McCraw, IMPEP Project Manager
U. S. Nuclear Regulatory Commission, Region III Office
Division of Materials Safety and State Agreements
2443 Warrenville Road
Lisle, Illinois 605532-4252

Dear Mr. McCraw:

The Department has received the NRC Draft Report dated November 23, 2009. The Draft Report outlines the findings and recommendations of the Integrated Materials Performance Evaluations Program (IMPEP) audit of the Arkansas Radioactive Materials Program on October 26 -30, 2009. The following is a response to the recommendations from the Draft Report:

1. *The review team recommends that the State take additional actions, such as increasing salary and/or benefits, to stabilize staffing and ensure successful program implementation. (Section 3.1)*

In 2008 the entry level rate for Health Physicists was increased. This in turn minimally increased salaries of some existing staff. Since that time the State has been working on implementing a new salary plan for all state employees. The new plan was passed by the Arkansas legislature in early 2009 and was effective July 1. Although there was a one-time increase for years of service, there was no increase in the entry rate for health physicists, increase in salary for existing staff or a career ladder incentive. The Department is actively working to get a plan through the State process which would boost salaries based on years of service, annual performance evaluation scores and participation in educational courses.

In addition to salary increases to retain staff, the Department is also pursuing strategies to increase morale and to increase accountability of Program and Section management.

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

The Program has begun the task of updating and revising procedures to be more inclusive of the operating activities associated with inspections and licensing practices. New procedures

are under development and will be implemented by March 1, 2010. Other revisions and updates will be completed and implemented by July 1, 2010.

NRC Inspection and Licensing Procedures are being used to verify the content of the Program Procedures. We have also requested copies of procedures from other Agreement State Programs to use as guidance.

The goal of these revisions and additions is to serve as a better training tool and for knowledge enhancement.

3. *The review team recommends that the State develop and implement an action plan to reduce the licensing renewal backlog. (Section 3.4 of the 2002 IMPEP Report)*

The Program is in the process of training the Health Physicist Staff and revising the Licensing Procedures as discussed in number 2 above, with the goal of streamlining the renewal licensing process. There have been Staff meetings in which the licensing process has been discussed with new thoughts and approaches to further improve and streamline the process (i.e. review process go through to issuance with one final secondary review, shorten and simplify the request for additional information to help licensee, do more email and telephone information confirmation).

There has been a discussion about establishment of a goal in the completion of renewals. This will be described in more detail as the Program begins the development of the next required Performance Improvement Plan. The success of any established goal is dependent upon the initiation of any new streamlined approach to the licensing backlog, competing Program/Section priorities and the stability of the technical staff.

Training of license reviewers remains a top priority. The licensing process being developed and implemented will remain flexible to ensure possible changes pending operational evaluation.

4. *The review team recommends that the State develop and implement a license termination procedure to ensure consistent and acceptable quality of information requests and documentation. (Section 3.4 of the 2006 IMPEP Report)*

A license termination procedure was in place at the time of the IMPEP review. This procedure was developed and implemented in January 2007. IMPEP team findings indicated that the technical staff had not been properly trained on following this procedure when terminating a radioactive material license.

Enclosed is a revised procedure RAM-01.6 entitled "Radioactive Material or Industrial Particle Accelerator License Termination & Decommissioning" with an effective date of December 23, 2009. This revised procedure has a checklist to be used at the time of termination to ensure that all items are satisfactorily addressed. The checklist will be part of the termination paperwork in the file.

Training will be provided to the technical staff to ensure successful implementation.

During the review of the Draft Report, an error was noted. On page 9, Section 3.4 - Technical Quality of Licensing the following statement is inaccurate:

“Because this licensee is a State University, pursuant to the Program’s own regulations, this licensee may simply provide statements of intent to meet the financial assurance requirements. A letter of intent was not on file at the time of the review; however, the Program agreed to promptly obtain the letter of intent from the licensee.”

This is old information because the State University licensee no longer meets the financial assurance requirements. Currently, there is one pool irradiator licensee that meets the financial assurance requirements. The financial documents for this licensee were available at the time of the IMPEP review.

We have one comment regarding the License Casework Reviews in Appendix D of the Draft Report. Under File Number 17, the IMPEP Team had noted that there were errors on this license regarding the transfer of sealed sources. These errors were researched and corrected by license amendment during the week of IMPEP. The corrected license amendment was provided to the IMPEP team.

I want to thank you for the opportunity to provide comments to the IMPEP Draft Report. We also appreciate the efforts and professionalism of the IMPEP Team during the review of the Radioactive Materials Program.

If you have any questions, or need additional information, please contact me at 501-661-2518 or Jared Thompson at 501-661-2173.

Sincerely,

ORIGINAL SIGNED BY CHARLES MCGREW

Charles McGrew, Deputy Director and Chief Operating Officer
Arkansas Department of Health

Attachment: RAM Procedure-01.6

cc: Donnie Smith, Director
Center for Health Protection

Renee Mallory, RN, Branch Chief
Health System Licensing & Regulation Branch

Bernard Bevill, Section Chief
Radiation Control Section

Jared Thompson, Program Manager
Radioactive Materials Program

**RADIOACTIVE MATERIAL OR
INDUSTRIAL PARTICLE ACCELERATOR
LICENSE TERMINATION & DECOMMISSIONING**

PURPOSE

- I. The purpose of this procedure is to provide guidelines for license termination and the decommissioning of facilities with unsealed radioactive material, sealed sources, and industrial particle accelerators.

The following criteria will be used for guidance:

- RH-1210.g. Radioactivity in Effluents to Uncontrolled Areas --Soil and vegetation limiting concentrations
- RH-1213. Surface Contamination Limits for Facilities and Equipment
- RH-1216. Radiological Criteria for Unrestricted Use
- RH-1217. Criteria for License Termination Under Restricted Conditions
- RH-1218. Alternate Criteria for License Termination
- RH-6010.c. General License (transferring land for unrestricted use)

NOTE: All documentation pertaining to termination and decommissioning of facilities will be maintained in the license files.

DISCUSSION**I. Facilities Licensed For Use of Unsealed Radioactive Material**

1. Upon receipt of a request for termination of a license or the decommissioning of a facility licensed to use unsealed radioactive material (RAM), the Health Physicist will review both current and past use of RAM, detailing use and storage areas and any incidents involving RAM.
2. The licensee must submit the following (refer to Termination Checklist, Attachment 1):
 - A. An amendment request to terminate the license (Log amendment into amendment tracking database.)
 - B. An amendment fee, unless waived by the Program Manager or designee.
 - C. Complete inventory of all radioactive material.

- D. Disposal or transfer records of all licensed radioactive material. (Transfer records must include documentation showing that the receiver was licensed to take possession of the material. A copy of the receipt from the receiver must also be included.)
 - E. Area wipes and surveys of the unsealed radioactive material use and storage areas performed by the licensee. (These results will be reviewed by the Health Physicist to determine whether contamination levels comply with the requirements prescribed in RH-1213 of the Arkansas State Board of Health (ASBH) Rules and Regulations for the Control of Sources of Ionizing Radiation.)
 - F. Split samples, if requested by the Department. (Radiochemistry analysis results of the samples, which support regulatory release, must be documented prior to approving termination or decommissioning. Proper documentation consists of e-mail, telephone memorandum, or the actual analysis report. This documentation must be placed in the files.)
 - G. Explanation of how radioactive waste was disposed of or transferred.
- 3. If sealed sources are also possessed, follow procedures outlined in Section II.
 - 4. All documentation will be reviewed by the Program Manager or designee.
 - 5. An on-site inspection may be performed by Health Physicist Staff to verify that release criteria have been met. The on-site termination visit may be waived with required documentation and the approval of the Program Manager or designee. If an on-site inspection is performed:
 - A. Prior to termination of the license or decommissioning of the facility, a report will be prepared by the on-site inspector. This report will be given to the Health Physicist/license reviewer, should the inspector not be this individual.
 - B. If contamination wipes are taken, the radiochemistry analysis results, which support regulatory release, must be documented prior to approving termination or decommissioning. This documentation will be placed in the files.
 - 6. When all documentation and survey results are satisfactory, the termination amendment will be written. The facility will be notified in writing that the area has been approved for release for unrestricted use.
 - 7. Termination amendments will be signed by the Program Manager or designee.
 - 8. Termination Completion procedures found in Section IV must be followed.

II. Facilities Licensed For the Use of Sealed Sources

1. Upon receipt of a request for termination of a license or the decommissioning of a facility licensed to use sealed radioactive material (RAM), the Health Physicist will review both current and past use of RAM, detailing use and storage areas and any incidents involving RAM.
2. The licensee must submit the following (refer to Termination Checklist, Attachment 1):
 - A. An amendment request to terminate the license. (Log amendment into amendment tracking database.)
 - B. An amendment fee, unless waived by the Program Manager or designee.
 - C. Complete inventory of licensed sealed sources.
 - D. Disposal or transfer records of licensed sealed sources including:
 1. Transfers to a licensee authorized to receive.
 2. Records of sealed sources held for decay.
 3. Manufacturer's receipt of sealed sources returned for disposal.
 4. Disposal records for any source not processed by 1, 2, or 3 above.
 - E. Leak test results performed within the required leak test interval as stated in the Sealed Source and Device Registry.
 - F. Area wipes and surveys may be required at the discretion of the Program Manager or designee. Results of these surveys must comply with the requirements prescribed in RH-1213 of the Arkansas State Board of Health (ASBH) Rules and Regulations for the Control of Sources of Ionizing Radiation.
3. All documentation will be reviewed by the Program Manager or designee.

4. With required documentation present and the approval of the Program Manager or designee, an on-site termination visit may not be necessary.
5. When all documentation and survey results are satisfactory, the termination amendment will be written. The facility will be notified in writing that the area has been approved for release for unrestricted use.
6. Termination amendments will be signed by the Program Manager or designee.
7. Termination Completion procedures found in Section IV must be followed.

III. Facilities Licensed For Industrial Particle Accelerators

1. Upon receipt of a request for termination of a license or the decommissioning of an Industrial Particle Accelerator license, the Health Physicist will review both current and past licensed activities including any use of RAM.
2. The licensee must submit the following:
 - A. An amendment request to terminate the license. (Log amendment into amendment tracking database.)
 - B. An amendment fee, unless waived by the Program Manager or designee.
 - C. Documentation of decommissioning of equipment.
 - D. The date of removal of the equipment prior to termination. (If applicable, ensure appropriate State Regulatory Agency has been notified).
 - E. The equipment recipient's name and address. (Transfer records must include documentation showing that the receiver was licensed to take possession of the equipment. A copy of the receipt from the receiver must also be included.)
3. All documentation must be reviewed by the Program Manager or designee.
4. Area wipes and surveys may be required at the discretion of the Program Manager or designee. Results of these surveys must comply with the requirements prescribed in RH-1213 of the Arkansas State Board of Health (ASBH) Rules and Regulations for the Control of Sources of Ionizing Radiation.
5. An on-site inspection may be performed by Health Physicist Staff to verify that release criteria have been met. The on-site termination visit may be waived with required documentation and the approval of the Program Manager or designee. If an on-site inspection is performed:
 - A. Prior to termination of the license or decommissioning of the facility, a report will be prepared by the on-site inspector. This report will be given to the Health Physicist/license reviewer, should the inspector not be this individual.
 - B. If contamination wipes are taken, the radiochemistry analysis results, which support regulatory release, must be documented prior to approving termination or decommissioning. This documentation will be placed in the files.

- 6. Termination amendments will be signed by Program Manager or designee.
- 7. Termination Completion procedures found in Section IV must be followed.

IV. Termination Completion

After the license termination is complete, the Health Physicist must do the following:

- 1. Close out the termination amendment in the amendment database.
- 2. Move licensee folder in shared space into terminated folder in the shared space.
- 3. Delete the terminated license from the master database.
- 4. Log in licensee information into terminated spreadsheet for IMPEP.
- 5. Take out renewal information in License Application tracking database, if applicable.
- 6. Remove renewal application from renewal filing cabinet. Place one copy in the house file, if applicable.
- 7. File the completed Termination Checklist in the house file.
- 8. Place house file to be archived with terminated files. Discard the field file.
- 9. Remove the licensee from the billing system.
- 10. Provide a copy of termination amendment to Program Manager.

Prepared By: Kayla D. Avery Date: 12/22/09
Kayla Avery, Health Physicist

Reviewed By: Jared Thompson Date: 12/22/2009
Jared Thompson, Program Manager

Approved By: Bernard Bevill Date: 12/23/09
Bernard Bevill, Section Chief

Attachment 1 TERMINATION CHECKLIST

Licensee: _____ License Number: _____

Radioactive Material (RAM) Type: _____ Unsealed RAM _____ Sealed Sources _____ Both
(Check or N/A as appropriate)

Required documentation:

- _____ Signed amendment request asking for termination with amendment fee (when applicable)
- _____ Close-out area wipes and surveys, if required
- _____ Current inventory of RAM
- _____ Explanation of how RAM was disposed of or transferred
- _____ Verification that recipient of RAM has RAM license
- _____ Letter from recipient showing possession of the RAM
- _____ Most current leak test of each sealed source

After amendment is complete:

- _____ Close out amendment in amendment database.
- _____ Move licensee folder in shared space into terminated folder in shared space.
- _____ Delete licensee from master database.
- _____ Log in licensee information into terminated spreadsheet.
- _____ Take out renewal information in Lic App tracking database (if applicable).
- _____ Remove renewal application (if applicable) from renewal filing cabinet and place one copy in house file.
- _____ File this checklist in archived house file.
- _____ Place house file to be archived with the terminated files. Discard the field file.
- _____ Remove licensee from billing system.
- _____ Give copy of termination amendment to Program Manager.

Additional requirements for unsealed RAM:

- _____ Close out area wipes and surveys, including equipment
- _____ Explanation of how RAM waste was disposed of or transferred

Health Physicist

Date

Reviewer

Date