

December 4, 2006

Mr. John Selig, Director  
Department of Health and Human Services  
P.O. Box 1437, Slot 201  
Little Rock, AR 72203-1437

Dear Mr. Selig:

On November 15, 2006, 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 and compatible with the U.S. Nuclear Regulatory Commission's (NRC) program.

As noted in the enclosed final IMPEP report and as discussed during the MRB meeting, the Arkansas Radioactive Materials Program (the Program) is facing considerable staffing issues, both present and future. During the review period, the Program lost four employees, including three individuals in an eight-month time span. The Program staff have since been able to fill three of the four vacated positions; however, one of the new staff members will be on military leave for the next year. Currently, one technical staff vacancy exists. The Program staff have been making efforts to fill this vacancy, but has experienced a lack of qualified applicants or have been refused by those individuals that were extended offers. In the NRC's experience of reviewing other Agreement State programs, the ability to recruit qualified applicants and maintain a stable staffing level is inhibited by low starting salaries and/or poor potential for career growth.

Because of the turnover in staff and the lingering vacancy, the Program has not been able to address prior NRC concerns over the number of backlogged license renewals. This issue has been identified during previous Program reviews by the NRC. During this review period, the Program was able to make some progress in addressing the issue; however, the loss of staff and the resulting hiring of inexperienced staff has hindered the Program's efforts to eliminate the backlog.

Due to the small number of trained and experienced staff that can independently perform regulatory actions, the Program has had to focus its resources to perform actions of greater health and safety significance, such as inspections and license amendments. The Program has done a commendable job maintaining an up-to-date inspection program; however, the staff turnover has also had an impact in this area. The Program has been forced to reprioritize its inspection frequencies to balance its workload and prevent licensing actions other than renewals to become backlogged. Previously, the Program had a much more aggressive inspection schedule than required by the NRC, but the shift in workload has caused the inspection frequencies to be pushed back to the minimum requirements. Any further staff set backs could jeopardize the timeliness and effectiveness of the inspection program.

At this time, the NRC is not questioning the State's ability to adequately protect public health and safety. As noted earlier, the Program has exerted considerable effort in protecting public health and safety with its limited staff resources. Given further staff attrition, this picture may

change in the future. If the existing issues mentioned above continue to go unresolved or the status of the program declines, additional action on the part of the NRC may be necessary to ensure continued protection of public health and safety. Additional actions can include placing the State on Heightened Oversight, placing the State on Probation, or temporarily suspending the Agreement until the NRC believes that the State can adequately protect public health and safety. As a result of the findings of this review, the NRC will conduct a periodic meeting with the State approximately one year from the date of the review to assess the State's progress in addressing the identified issues. Typically, periodic meetings take place approximately two years after an IMPEP review, but because of the potential for decline in program performance, the MRB directed that a meeting be held sooner.

Section 5.0, page 13, of the enclosed final report contains a summary of the IMPEP team's findings and recommendations for the State. We request your evaluation and response to the recommendations within 30 days from receipt of this letter. The State's actions in response to the recommendations will be evaluated during the periodic meeting. The next full IMPEP review of the Arkansas Agreement State Program will take place in approximately four years.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I encourage your support for the Agreement State program and its valuable mission of protecting public health and safety from the potential hazards associated with the use of radioactive materials. I look forward to our agencies continuing to work cooperatively in the future.

If you have any questions regarding this correspondence, please contact Ms. Janet R. Schlueter, Director, Division of Materials Safety and State Agreements, Office of Federal and State Materials and Environmental Management Programs, at (301) 415-3340.

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:  
As stated

cc: Paul Halverson, Director  
Arkansas Division of Health

Jared Thompson, Program Leader  
Arkansas Radioactive Materials Program

Bernard Bevill, State Liaison Officer  
Arkansas Radiation Control Section

Edgar Bailey, Texas  
Organization of Agreement  
States Liaison to the MRB

change in the future. If the existing issues mentioned above continue to go unresolved or the status of the program declines, additional action on the part of the NRC may be necessary to ensure continued protection of public health and safety. Additional actions can include placing the State on Heightened Oversight, placing the State on Probation, or temporarily suspending the Agreement until the NRC believes that the State can adequately protect public health and safety. As a result of the findings of this review, the NRC will conduct a periodic meeting with the State approximately one year from the date of the review to assess the State's progress in addressing the identified issues. Typically, periodic meetings take place approximately two years after an IMPEP review, but because of the potential for decline in program performance, the MRB directed that a meeting be held sooner.

Section 5.0, page 13, of the enclosed final report contains a summary of the IMPEP team's findings and recommendations for the State. We request your evaluation and response to the recommendations within 30 days from receipt of this letter. The State's actions in response to the recommendations will be evaluated during the periodic meeting. The next full IMPEP review of the Arkansas Agreement State Program will take place in approximately four years.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I encourage your support for the Agreement State program and its valuable mission of protecting public health and safety from the potential hazards associated with the use of radioactive materials. I look forward to our agencies continuing to work cooperatively in the future.

If you have any questions regarding this correspondence, please contact Ms. Janet R. Schlueter, Director, Division of Materials Safety and State Agreements, Office of Federal and State Materials and Environmental Management Programs, at (301) 415-3340.

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:  
 As stated

cc: Paul Halverson, Director  
 Arkansas Division of Health

Jared Thompson, Program Leader  
 Arkansas Radioactive Materials Program

Bernard Bevill, State Liaison Officer  
 Arkansas Radiation Control Section

Edgar Bailey, Texas  
 Organization of Agreement  
 States Liaison to the MRB

Distribution DCD (SP01) PDR (YES✓) DIR RF Chairman Klein Commissioner Jaczko  
 DWhite, RI RErickson, RIV CMaier, RIV MWhalen, MA Commissioner McGaffigan Commissioner Lyons  
 FCameron, OGC AKock, OEDO CMiller, FSME GPangburn, FSME Commissioner Merrifield  
 MOrendi, FSME/MSSA KCyr, OGC TCombs, OCA (2 copies)

**SUNSI Review Complete**  Publicly Available  Non-Publicly Available  Non-Sensitive  Sensitive  
 To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

| OFFICE | DMSSA/SAIS  | DMSSA/SAIS:BC | FSME/DMSSA:DD             | FSME/DMSSA:D                  | DEDMRT     |
|--------|-------------|---------------|---------------------------|-------------------------------|------------|
| NAME   | ATMcCraw:gd | PARathbun     | SWMoore<br>(SWastler for) | JRSchlueter<br>(SWastler for) | MJVirgilio |
| DATE   | 11/27/06    | 11/27/06      | 11/28/06                  | 11/28/06                      | 12/04/06   |

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM  
REVIEW OF ARKANSAS AGREEMENT STATE PROGRAM

August 28 - September 1, 2006

**FINAL REPORT**

U.S. Nuclear Regulatory Commission

## 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 August 28 - September 1, 2006, by a review team comprised of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Massachusetts. Team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Rescission of Final General Statement of Policy," published in the Federal Register on October 16, 1997, and the February 26, 2004, NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)." Preliminary results of the review, which covered the period of September 14, 2002, to September 1, 2006, were discussed with Arkansas management on the last day of the review.

A draft of this report was issued to Arkansas for factual comment on September 29, 2006. The State responded by e-mail on November 1, 2006, from Jared Thompson, Program Leader, Arkansas Radioactive Materials Program (the Program). The Management Review Board (MRB) met on November 15, 2006, to consider the proposed final report. The MRB found the Arkansas Agreement State Program adequate to protect public health and safety and compatible with NRC's program. Due to the long standing license renewal backlog issue and the impact of staff turnover on program performance, the review team recommended and the MRB agreed that a periodic meeting be conducted approximately one year from the time of this review. The review team recommended and the MRB agreed that the next full IMPEP review take place in approximately four years.

The Arkansas Agreement State Program is administered by the Program which is part of the Radiation Control Section (the Section) in the Health Systems Licensing and Regulation Branch (the Branch). This is one of four Branches in the Center for Health Protection which is part of the Division of Health (the Division). The Division Director reports to one of two Deputy Directors, who in turn reports to the Director for the Department of Health and Human Services (the Department). Organizational charts of the Department, Division, Branch and Program are included as Appendix B. At the time of the review, the Arkansas Agreement State Program regulated 245 specific licenses authorizing Agreement materials. The review focused on the materials program as it is carried out under the Section 274b. (of the Atomic Energy Act of 1954, as amended) Agreement between the NRC and the State of Arkansas.

In preparation for the review, a questionnaire addressing the common and non-common performance indicators was sent to the Program on May 8, 2006. The Program provided its response to the questionnaire on August 16, 2006. A copy of the questionnaire response may be found in the NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML062630107.

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 licensee database; (4) technical review of selected licensing and inspection actions; (5) field accompaniments of two Arkansas inspectors; and (6) interviews with staff and management to answer questions or clarify issues. 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 Agreement State program's performance.

Section 2 of the report discusses the Program's actions in response to recommendations made during 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. The recommendations made by the review team 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 13, 2002, three recommendations were made and transmitted to Dr. Fay Boozman, Director of the former Department of Health, on December 20, 2002. The review team's assessment of the current status of these recommendations are as follows:

1. The review team recommends that Department management review the current staffing plan to achieve a more effective balance between licensing and inspection activities. (Section 3.3)

Current status: During the review period, the Program lost three individuals between December 2004 and July 2005 which required the Program to realign its priorities and focus on higher priority activities, primarily inspections and incident response. Although the program has hired three individuals in the last year to replace those who left, the basis for this recommendation no longer applies to the current staffing situation. This matter is discussed in further detail in Section 3.1 of the report where the review team makes a new recommendation. This recommendation is closed.

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

Current status: During the first part of the review period, the Program implemented a plan to reduce the licensing backlog and completed 71 renewals until the loss of three staff members in the first half of 2005. Consequently, the Program continues to have a significant license renewal backlog that includes 55 renewals that were in timely renewal at the time of the 2002 review. This matter is discussed in greater detail in Section 3.4 of the report. This recommendation remains open.

3. The review team recommends completion of revisions to update licensing guidance documents and checklists. (Section 3.4 of the 1998 report)

Current status: Since the last review, the Program has completed and implemented two licensing guides for fixed and portable gauges. The Program has also completed draft licensing guides for industrial radiography and medical facilities. These guides are currently under review and should be implemented in the near future. Despite the loss of personnel during the review period, the Program has continued to make progress in this area. A large majority of the Program's licensees are subject to these guides, especially those licensees under timely renewal. This recommendation is closed.

### 3.0 COMMON PERFORMANCE INDICATORS

IMPEP identifies five common performance indicators to be used in reviewing both NRC Regional and Agreement State programs. These indicators include: (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 Program's questionnaire response relative to this indicator, interviewed Program and Section management and staff, reviewed job descriptions and training records, and considered any possible workload backlogs.

In 2005, the Arkansas Department of Health merged with the Department of Human Services creating the Department of Health and Human Services. The Department of Health is now one of 11 divisions in the new Department. The new senior managers in the Department were not initially familiar with the wide scope of activities in the new organization, including the radioactive materials program. The new Department is more hierarchal than the Department of Health and the Program does not have the same ready access to the senior management that the Program once enjoyed.

The Program is headed by the Program Manager. The Program is comprised of seven technical staff positions, including the Program Manager and the Program Coordinator. The Program has one administrative position. Currently, one technical position is vacant. The Program has not been successful in filling the position despite making offers to prospective individuals. Technical staff perform both licensing and inspection functions. For the last four years, the Program has had the services of a consultant that is contracted to work up to 1,000 hours per fiscal year. The consultant's current activities include developing and revising licensing guidance, performing license renewals, and completing special projects.

The Program lost four employees during the review period, including three individuals between December 2004 and July 2005. The Program filled three of the resulting vacancies over the last year. The loss of experienced staff over a short period of time had a significant impact on the Program ability to reduce their license renewal backlog. Despite success in reducing the backlog from the 2002 IMPEP review to early 2005, the Program has not been able to make any progress since that time and the number of backlogged license renewals have again increased. This area of concern is discussed in more detail in Section 3.4. The loss of staff has also impacted the Program's inspection efforts. As noted in Section 3.2, the number of inspections conducted annually by the program has been decreasing each year. In recent years, the aggressive inspection schedule helped the Program ensure that any safety-significant issues could be promptly identified, but the decrease in inspection frequencies will challenge the program in this area until the new staff members can conduct inspections independently. One of the new staff members will be qualified to perform independent inspections of certain license types by the end of 2006; however, one of the new staff members will be on military leave for the next year.

The review team noted that until the staffing in the Program stabilizes and new staff gain sufficient experience on the job to operate independently, there will be challenges to complete the routine work and new initiatives that may arise. The review team noted that the Program does not have an effective means to measure the health of the program. As noted in Sections 3.2 and 3.4, the tracking and documentation of routine activities for the Program could be improved. The Program will be challenged by the finalization of new medical regulations in September 2006 that impact a large number of the Program's licensees, many that have had their licenses in timely renewal for more than one year. Consequently, the Program will need to work with Department management to convey the importance and viability of the Agreement State program. 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.

The Program does not have a documented training plan; however, the review team found that new staff was aware of the requirements needed to perform inspection and licensing activities independently. New staff also has on-the-job training to supplement the didactic course work (NRC training courses) so that individuals may broaden their professional experience. New staff members are assigned increasingly complex licensing duties and accompany more experienced inspectors during increasingly complicated inspections. Under the direction of the senior staff members, new staff members perform inspections prior to accompaniment evaluation by the Program Manager. Inspectors are assigned independent inspections after demonstrating competence during accompaniment evaluations. The review team confirmed that the new staff is in the process of gaining qualifications at an appropriate pace. Three staff members, including the Program Manager, attended the NRC Security Systems and Principles Training Course for Materials Inspectors.

The review team discussed the lack of a documented training plan with the Program Manager and Section Chief. This issue was also discussed during the 2002 IMPEP review. The team noted that a documented training plan has been useful for other Agreement State programs to convey the importance of training and development of staff to upper management. 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 Training Working Group Report and the NRC's Inspection Manual Chapter (IMC) 1246.

The Program works with the Medical Advisory Committee (the Committee), appointed by the Arkansas Chapter of the American College of Radiology, to obtain guidance on specific licensee issues. The Program indicated that during the last four years they utilized the Committee on one occasion. Conflict of interest is avoided by identifying any potential connection between a Committee member and the licensee in question. If a member is found to have a connection, they are not included in the Committee process.

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

### 3.2 Status of Materials Inspection Program

The review team focused on five factors in reviewing the status of the materials inspection program: inspection frequency, overdue inspections, initial inspections of new licensees, timely



dispatch of inspection findings to the licensees, and the performance of reciprocity inspections. The review team's evaluation is based on the Program's questionnaire response relative to this indicator, data gathered from reports generated from the licensee database, examination of completed inspection casework, and interviews with management and staff.

The Program's inspection procedure RAM-01.09 "Assigning and Tracking Radioactive Material and Particle Accelerator Inspections" (RAM-01.09) establishes inspection priorities, which are at least equivalent to the priority schedule specified in IMC 2800. With the exception of Priority 1 licenses, RAM-01.09 specifies that several license types are scheduled for inspections more frequently than similar license types in IMC 2800. For example, nuclear medicine licenses are Priority 1 or 2, based on volume of use in RAM-01.09, versus IMC 2800's Priority 3 or 5 for nuclear medicine licenses, based on the use of a written directive. The review team noted at the time of the review, the Program had 45 Priority 1 licenses that were inspected annually. Thirty-seven of the 45 Priority 1 licenses were inspected more frequently than the intervals specified in IMC 2800.

The review team noted that although RAM-01.09 specifies that inspection priority is based on the license category assigned during the licensing process, there is no documented, comprehensive list of license categories and their associated inspection priorities authorized by the Program. The lack of a standardized list of license categories appears to have caused inconsistency in the assignment of inspection priorities and a general lack of understanding among the less experienced staff regarding the assignment of inspection priorities. The review team also noted that the Program's procedure for changing a licensee's inspection interval does not reflect the current policy in the IMC 2800, which does not allow the extension of inspection frequencies. The current Program policy outlined in RAM-01.12 "Extension and Reduction of Inspection Frequencies" allows for the adjustment of inspection frequencies. The review team further noted that the basis for adjusting an inspection interval was generally not documented in the applicable license file. At the time of the review, the Program's licensee database indicated that one Priority 1 licensee, two Priority 2 licensees and one Priority 3 licensee were on an accelerated inspection schedule. It appears that there are more licensees on an accelerated inspection schedule than those that are documented in the database or in licensee files. 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.

The licensee database generally contains sufficient information for proper management of the inspection program. The review team noted that the number of inspections performed each year has decreased. In 2003, the Program performed 201 inspections; in 2004, 186 inspections; and in 2005, 108 inspections. In 2006, from January 1 through July 31, the Program performed 47 inspections. The Program Manager stated that prior to the loss of experienced staff, resources had been focused on inspections to ensure that potential health and safety issues resulting from the licensing renewal backlog were identified and addressed. To deal with the current strain on resources, the Program has temporarily extended the inspection frequencies of many Priority 2-5 licensees which are based on risk and to continue to protect public health and safety.

At the time of the review, there were no overdue Priority 1, 2, and 3, or initial inspections. During the review period, one Priority 1 inspection was conducted overdue. The Program Manager was aware that this inspection was due. To better utilize resources, the Program

consciously delayed this inspection until the Increased Controls were implemented so it could be performed in conjunction with Increased Controls inspection of the licensee.

During the review period, the Program granted 186 reciprocity permits. The Program's RAM-03.09 procedure is used to establish the inspection frequency for reciprocity licensees. Consequently, the Priority 3 reciprocity licensees identified in the Program's response to the questionnaire were industrial gauge licensees, which are not candidate licensees under the guidance in IMC 1220. Nevertheless, the Program met the reciprocity inspection goals identified in IMC 1220 throughout the review period.

The timeliness of the issuance of inspection findings was evaluated during the review of inspection casework. The Program has goals of transmitting inspection reports with items of noncompliance to the licensee within 12 working days after the inspector returns to the office and transmitting inspection reports with no items of noncompliance to the licensee within 17 working days after the inspector returns to the office. The review team noted that the Program generally met their goals. For all casework reviewed, inspection findings were sent to the respective licensee within 30 days.

The review team determined that with respect to Commission Staff Requirements Memorandum (SRM) for COMSECY-05-0028, on increased controls, the Program has inspected a number of licensees in accordance with the increased control requirements. The review team evaluated the Program's prioritization methodology and found it acceptable.

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

### 3.3 Technical Quality of Inspections

The review team evaluated the inspection reports, enforcement documentation, and inspection field notes, and interviewed inspectors for 26 materials inspections conducted during the review period. The casework reviewed included inspections by six inspectors, and covered inspections of various license types including: industrial radiography, portable and fixed gauges, broad scope academic, well logging, medical clinic, medical institution, radiation therapy, and irradiator facilities. The review team also evaluated casework for nine increased controls inspections. Appendix C lists the inspection casework files reviewed, with case-specific comments, as well as the results of the review team's inspector accompaniments.

Based on the evaluation of casework, the review team found that routine inspections covered all aspects of a licensee's radiation protection program. Inspection reports were generally very thorough, complete, consistent, and of high quality. The reports were very detailed with sufficient documentation to ensure acceptable performance with respect to health and safety by the licensee. The documentation supported violations, recommendations made to the licensee, unresolved safety issues, and discussions held with the licensee during exit interviews. The Program maintained and controlled a separate file with correspondence and documentation for increased controls inspections for each licensee subject to these requirements. Team inspections were performed when appropriate and for training purposes. During the review period, the Program Manager accompanied all individuals who perform radioactive materials inspections at least annually.

The Program maintains a sufficient number and variety of survey instruments to perform radiological surveys of licensees. The review team examined documentation regarding the staff's instrumentation and observed that the survey instruments were calibrated and operable. Inspectors are assigned calibrated instruments for their routine use. The staff calibrates the Program's survey meters at least annually, with a source that is traceable to the National Institute of Standards and Technology.

The Program staff receive support from the Arkansas Department of Health Radiochemistry Laboratory, which performs sample counting and assay services as needed. Discussions with Program staff established that the support is timely and dependable. The laboratory is capable of providing accurate and defensible results to support the staff's needs.

Accompaniments of two inspectors were conducted by an IMPEP team member on August 15 and 16, 2006. The inspectors were accompanied during health and safety inspections of an industrial radiography licensee and a medical institution requiring written directives. The review team also observed the inspectors conduct increased controls inspections at these facilities. The accompaniments are identified in Appendix C. During the accompaniments, each inspector demonstrated appropriate inspection techniques, knowledge of the regulations, and conducted performance-based inspections. The inspectors were trained, well-prepared for the inspection, and thorough in their audits of the licensees' programs. Each inspector conducted interviews with appropriate licensee personnel, observed licensed operations, conducted confirmatory measurements, and utilized good health physics practices. Their inspections were adequate to assess radiological health and safety and increased controls at the licensed facilities.

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

### 3.4 Technical Quality of Licensing Actions

The review team interviewed license reviewers, evaluated the licensing process, and examined licensing casework for 22 specific licenses. Fifty separate licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequate facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of the license conditions, and overall technical quality. The casework was reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, product certifications, supporting documentation, consideration of enforcement history, pre-licensing visits, supervisory review as indicated, and proper signatures. The casework was also checked for retention of necessary documents and supporting data.

The licensing casework was selected to provide a representative sample of licensing actions that were completed during the review period. The sampling focused on the State's new licenses, amendments, renewals, licenses terminated, and the incorporation of increased controls onto licenses. The sample included the following license types: medical (institution, private practice, mobile, and therapy), well logging, industrial radiography, portable and fixed gauge, veterinary, academic, self-shielded irradiator and, a large irradiator facility. Licensing casework activities reviewed included 3 new licenses, 1 renewal, 37 amendments, 4 terminations, and 4 increased controls amendments. The Program completed a total of 1,114

licensing actions, including 927 amendments, during the review period. A listing of the licensing casework reviewed, with case-specific comments, may be found in Appendix D.

The review team found that the Program's significant license renewal backlog continues to be an issue as identified during the previous reviews in 1995, 1998 and 2002. Of the 245 active licenses, 92 licenses are in timely renewal, 84 of which have had this status for more than one year. Fifty-five of the 92 were in timely renewal at the time of the 2002 IMPEP review. The review team found that since the 2002 IMPEP the staff reduced the renewal backlog by completing 71 renewals until January 2005 when the loss of three staff members forced the Program to abandon the effort to focus on inspection priorities. The Program Manager indicated that the Program had previously administratively extended licenses during 1999 and 2000, but this was discontinued as it did not solve what they consider a long-term problem. Furthermore, the Program Manager indicated they have focused resources on inspections to ensure that potential health and safety issues resulting from the licensing renewal backlog are identified and addressed. During the 2002 review, the review team recommended that Department management develop and implement an action plan to reduce the licensing renewal backlog. As indicated in Section 2.0, the review team is keeping this recommendation open. The Program should update the action plan and recommence its implementation.

There was no backlog of amendments and new applications identified during this review. The staff responds to new applications and amendment requests in a timely manner, generally within three weeks, and issues completed licenses within 30 to 45 days.

The review team noted several instances where material dispositions and license terminations were approved without receiving supporting documentation. For example, several approved sealed source disposition and/or license termination requests did not include leak tests of the sources. There was also a site termination request for the removal of a site without the licensee requesting or submitting final status surveys. In the latter case, the license transmittal letter requested that the licensee forward the final status surveys as soon as they were performed. 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.

In addition to the disposition release and license or site termination requests noted above, there were other licensee requests in which the licensee's documentation was inconsistently included in the tie-down condition of the license. This matter was discussed with the Program staff and they agreed that consistency was needed. The Program agreed that this matter be incorporated into their strategy to improve efficiency and effectiveness as recommended in Section 3.1.

Application packages containing guidance are sent to license applicants. The applications are reviewed following standard procedures that are similar to those used by the NRC. The licensing guidance, as well as other applicable guidance from NRC, is available, although staff has not had time to convert references to NRC regulations to Arkansas regulations. Since the 2002 IMPEP review, the former Radiation Program Director was hired as a consultant and has completed two licensing guides (fixed and portable gauges). Two additional guidance documents (Industrial Radiography and Medical Use) are currently in draft form and should be finalized in the near future. These licensing guides are based on the NRC's NUREG-1556 series. The finalization and implementation of the licensing guides have been slowed by staff

turnover, but with the completion of the four guides, a large majority of the licenses will be covered by the revised guidance.

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 the second by either the Program Coordinator or the Senior Health Physicist, both of whom have signature authority. Licenses are usually signed by the Program Manager; however, the other two experienced individuals can sign the license if the need arises. Amended licenses are issued as a complete license, instead of just the one or two pages that were affected by the request. In addition, the updated section of the license is bolded to highlight the changed section(s), and these updates are also included in the license transmittal letter.

The Program started to track license action requests received, but due to staff turnover the data entry has not been consistent. Hence, the Program cannot accurately tabulate actions received, completed, or compare results against timeliness standards. The Program relies on each license reviewer to maintain a paper log of assignments and to submit them monthly to the Program Manager. To make the current tracking system work, the Program is having two of its staff trained in database development and maintenance.

The review team looked at the only financial assurance instrument provided by a licensee and maintained by the Program and determined it to be appropriate, timely, physically secured, and the originally signed document. The review team identified two additional licenses that permitted possession in excess of the quantities requiring financial assurance. Since both of these licenses are State universities, pursuant to the Program's own regulations, these licensees may simply provide statements of intent to meet the financial assurance requirements. The Program agreed to promptly obtain the letters of intent.

Overall, the review team found that the licensing actions were thorough, complete, consistent, and of acceptable quality with health and safety issues properly addressed. Most license tie-down conditions were stated clearly, and were backed by information contained in the file, and inspectible. The licensee's compliance history was taken into account when reviewing renewal applications and amendments. Some amendments issued were a result of compliance issues found during inspections because the licensee had submitted changes to their program or possession limits in the renewal application, which had not been processed. Until the renewal backlog is reduced, these amendments are expected to increase as the approved radiation protection programs become more outdated.

The review team examined the list of licensees that the Program had determined met the criteria for the increased controls per COMSECY-05-0028. The review team determined that the Program had correctly identified the licensees that require increased controls based on this criteria, and will continue to issue increased controls to any additional licensees, as appropriate. Each licensee was issued a license amendment requiring increased controls in accordance with the timelines established by the Commission in the SRM for COMSECY-05-0028.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Arkansas' 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 and allegations, 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 Program's files, and evaluated the casework for 16 radioactive materials incidents. A listing of the incident casework examined, with case-specific comments, may be found in Appendix E. The review team also evaluated the Program's response to allegations involving radioactive materials, including allegations referred to the State by the NRC.

Written procedures for handling incidents and allegations can be found in Administrative Policy AD-06.9. When an incident is reported to the Program after office hours, the information is received by a 24-hour operator. The information is recorded and Program management is notified. When an incident is received directly by the Program, other methods were used to record the incident (e.g., NMED reports). Records of all reported incidents (open and closed) are maintained in an incident file cabinet controlled by the Program.

The responsibility for initial response and followup actions to radioactive materials incidents may be assigned to any senior member of the Program. Upon receipt, management reviews a report, decides on the appropriate response, and logs it into the incident log. Due to recent staffing shortages and a lack of qualified staff, only senior staff members are presently assigned to incident followup. Newer staff members accompany senior staff during incident followups.

During the review period, the Program received reports of 41 radioactive material incidents. The review team evaluated 16 incidents that required reporting under the NRC criteria. The incidents selected for review included the following categories: equipment failure, medical event, transportation accident, dispensing error, naturally occurring radioactive material in scrap metal, abandoned sources, general public exposures, and radiation worker overexposures. Initial responses were prompt and the level of effort was commensurate with the health and safety significance of the incident. Initial response and followup to incidents and allegations involving radioactive materials are coordinated with and through the Program Manager.

The review team identified one incident that had not been closed out in NMED because it involved an abandoned source now held in storage by the Program. With the exception of one incident file noted in Appendix E, the review team found that the NMED database accurately reflected the information contained in the Program's files. Overall, the review team determined that the Program reported incidents to the NRC Headquarters Operations Center in a timely manner with appropriate and timely followup actions.

The review team also evaluated the Program's response to allegations (i.e., complaints) involving radioactive material. The review team evaluated the Program's response to six allegations including one that was referred to the Program by the NRC during the review period and one that had been open at the time of the last program review.

The review of the complaint files indicated that the Program took prompt and appropriate action in response to concerns raised, and when able, the Program replied back to the allogger with the results of the investigation. The casework reviewed indicated that alloggers' identities are protected when possible, and the allegations were appropriately closed. 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 alleged's identity, but the Program cannot fully guarantee anonymity. During the initial telephone contact, the alleged is advised that their anonymity cannot be guaranteed.

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

#### 4.0 NON-COMMON PERFORMANCE INDICATORS

IMPEP identifies four non-common performance indicators to be used in reviewing 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. Only the performance indicators, Compatibility Requirements and Low-Level Radioactive Waste Disposal Program, were applicable to this review.

##### 4.1 Compatibility Requirements

###### 4.1.1 Legislation

Arkansas became an Agreement State on July 1, 1963. The Department is designated as the State's radiation control agency. Legislative authority was granted to the Department in the "Arkansas Code of 1987 Annotated, Volume 20A, Title 20, Chapter 21." The legislative authority authorizing a Low-Level Waste Program is the "Arkansas Code of 1987 annotated, Volume 6A, Title 8, Chapter 8. Along with the Program's response to the questionnaire, the staff provided the review team with the opportunity to review copies of legislation that affects the radiation control program. In addition to appropriation legislation, one piece of legislation (Act 1119 of 2003) affecting the Agreement State program was passed since the last review. This legislation authorizes the Department to collect fees for generally licensed devices.

###### 4.1.2 Program Elements Required for Compatibility

The State's regulations for control of radiation are located in the Rules and Regulations for Control of Sources of Ionizing Radiation of the Arkansas State Board of Health and apply to ionizing radiation, whether emitted from radionuclides or devices. Arkansas requires a license for possession and use of radioactive materials, including naturally occurring and accelerator-produced radionuclides. A copy of the effective Arkansas regulations, including the amendments which became effective on July 1, 2002, were provided to the review team.

The review team examined the procedures used in the State's rule-making process and found that the public and other interested parties are offered an opportunity to comment on proposed regulation changes. It was noted that draft regulations were sent to the NRC for review and comment, and when necessary, the NRC comments were incorporated. The package of proposed regulations prepared by the Program, requires review by the Arkansas Legislative Council and approval from the State Board of Health. The State has emergency rule capability, if public health and safety are at risk. It was noted that the State's rules and regulations are not subject to "sunset" laws.

The review team evaluated the Program response to the questionnaire relative to this indicator, reviewed the status of regulations required to be adopted by the State under the Commission's adequacy and compatibility policy, and verified the adoption of regulations with data obtained from the State Regulation Status Data Sheet.

The State currently has no overdue regulations required for compatibility. A single package with nine required regulatory changes was signed by the Governor on August 29, 2006, and became effective on October 1, 2006. The Program plans to notify licensees about the changes by letter, including a CD version of the regulations. The updated Arkansas regulations will also be made available for download on the Program's web page.

The Program will need to address the following three regulations in upcoming rulemakings or by adopting alternate legally binding requirements:

- "Compatibility With IAEA Transportation Safety Standards and Other Transportation Safety Amendments" Part 71 (69 FR 3697) that became effective October 1, 2004. This amendment is due for Agreement State implementation by October 1, 2007.
- "Medical Use of Byproduct Material — Recognition of Specialty Boards," 10 CFR Part 35 amendments (70 FR 16336, 71 FR 1926) that became effective April 29, 2005. This amendment is due for Agreement State implementation by April 29, 2008.
- "Minor Amendments," 10 CFR Parts 20, 30, 32, 35, 40 and 70 amendments (71 FR 15005) that became effective March 27, 2006. This amendment is due for Agreement State implementation by March 27, 2009.

The review team noted that the State is using license conditions in lieu of adopting regulations to impose the requirements of NRC Order EA-05-090 on affected licensees in their jurisdiction. NRC Order EA-05-090 requires licensees possessing certain radioactive materials in risk significant quantities to implement increased controls to reduce the risk of the unauthorized use of these materials.

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

#### 4.2 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 the Arkansas Agreement State Program has LLRW disposal authority, NRC has not required States to have a program for licensing a LLRW disposal facility until such time as the State has been designated as a host State for a LLRW disposal facility. When an Agreement State has been notified or becomes aware of the need to regulate a LLRW disposal facility, they are expected to put in place a regulatory program which will meet the criteria for an adequate and compatible LLRW disposal



program. There are no plans for a LLRW disposal facility in Arkansas. Accordingly, the review team did not review this indicator.

## 5.0 SUMMARY

As noted in Sections 3 and 4 above, Arkansas' performance was found satisfactory, but needs improvement, for the indicators, Technical Staffing and Training and Technical Quality of Licensing Actions and satisfactory for all remaining performance indicators reviewed. The review team made four recommendations regarding the performance of the Arkansas Agreement State Program and recommends that one recommendation from the 2002 IMPEP review remain open. Accordingly, the review team recommended and the MRB agreed that the Arkansas Agreement State Program is adequate to protect public health and safety and compatible with NRC's program. Due to the long standing license renewal backlog issue and the impact of staff turnover on program performance, the review team recommended and the MRB agreed that a periodic meeting be conducted approximately one year from the time of this review. Based on the results of the current IMPEP review, the review team recommended and the MRB agreed that the next full IMPEP review take place in approximately four years.

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

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)
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 Training Working Group Report and the NRC's Inspection Manual Chapter (IMC) 1246. (Section 3.1)
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. (Section 3.2)
4. The review team recommends that Department management develop and implement an action plan to reduce the licensing renewal backlog. (Open recommendation from the 2002 IMPEP review) (Section 3.4)
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)

## LIST OF APPENDICES 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 | November 1, 2006, E-mail from Jared Thompson<br>Arkansas' Response to Draft IMPEP Report |

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

| <b>Name</b>                   | <b>Area of Responsibility</b>  |
|-------------------------------|--|
| Duncan White, Region I        | Team Leader<br>Technical Staffing and Training<br>Compatibility Requirements<br>Inspector Accompaniments |
| Randy Erickson, Region IV     | Technical Quality of Incident and Allegation<br>Activities<br>Compatibility Requirements                 |
| Christi Maier, Region IV      | Status of Materials Inspection Program<br>Technical Quality of Inspections                               |
| Michael Whalen, Massachusetts | Technical Quality of Licensing Actions   |

APPENDIX B

ARKANSAS ORGANIZATION CHARTS

ADAMS ACCESSION NUMBERS:

ML062630109

ML062630111

ML062630117

ML062630123

## APPENDIX C

### INSPECTION CASEWORK REVIEWS

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

File No.: 1

Licensee: Sterigenics International, Inc.  
Inspection Type: Routine, Unannounced  
Inspection Dates: 4/17-18/06

License No.: ARK-903  
Priority: 1  
Inspectors: SM, KG, LP

File No.: 2

Licensee: International Paper Company  
Inspection Type: Routine, Unannounced  
Inspection Date: 6/6/06

License No.: ARK-042  
Priority: 1  
Inspectors: SM, LP

Comment:

The list of licensees generated from the Program's licensee database indicates that licensees within this category are assigned Priority 1, 2, 3 or 4. The basis for priority assignment to individual licensees is not documented.

File No.: 3

Licensee: Nucor-Yamato Steel Company  
Inspection Type: Routine, Unannounced  
Inspection Date: 12/17/03

License No.: ARK-722  
Priority: 3  
Inspector: SM

File No.: 4

Licensee: University of Arkansas  
Inspection Type: Routine, Unannounced  
Inspection Dates: 11/29-12/01/05

License No.: ARK-064  
Priority: 1  
Inspectors: KW, SM, KG

Comment:

The basis for priority assignment for this licensee in the Program's licensee database is not documented.

File No.: 5

Licensee: Arkansas Children's Hospital  
Inspection Type: Routine, Unannounced  
Inspection Date: 8/23/05

License No.: ARK-572  
Priority: 1  
Inspectors: SD, KW

File No.: 6

Licensee: University of Arkansas for Medical Sciences  
Inspection Type: Routine, Announced  
Inspection Date: 6/14-16/06

License No.: ARK-001  
Priority: 1  
Inspectors: SM, KG, LP

Comment:

Letter to licensee documenting health and safety inspection findings include references to Increased Controls inspection.

File No.: 7

Licensee: Arkansas Cardiology, PA  
Inspection Type: Routine, Announced  
Inspection Date: 10/13/05

License No.: ARK-733  
Priority: 1  
Inspectors: SD, JT

Comment:

Inspection priority appears to have been reduced to Priority 1 because of several items of noncompliance identified during an May 2005 inspection of an authorized field office. However, the Program's licensee database does not indicate that this inspection priority is "accelerated."

File No.: 8

Licensee: Heart Associates of South Arkansas  
Inspection Type: Special, Unannounced  
Inspection Date: 2/17/05

License No.: ARK-961  
Priority: 2  
Inspector: KW

File No.: 9

Licensee: White County Medical Center  
Inspection Type: Routine, Unannounced  
Inspection Date: 5/10/06

License No.: ARK-681  
Priority: 2  
Inspectors: KG, JT

File No.: 10

Licensee: St. Vincent Infirmiry Medical Center  
Inspection Type: Routine, Special  
Inspection Dates: 6/19-21/06

License No.: ARK-394  
Priority: 1  
Inspectors: KG, KW

Comment:

The basis for the Priority 1 inspection priority as an "accelerated" inspection frequency is not documented.

File No.: 11

Licensee: St. Edward Mercy Medical Center  
Inspection Type: Routine, Unannounced  
Inspection Date: 6/29/06

License No.: ARK-335  
Priority: 1  
Inspectors: KW, JT

Comment:

The basis for the Priority 1 inspection priority as an "accelerated" inspection frequency is not documented.

File No.: 12

Licensee: APAC-Arkansas, Inc.  
Inspection Type: Routine, Unannounced  
Inspection Date: 6/29/06

License No.: ARK-686  
Priority: 1  
Inspectors: SM, LP, TH

Comment:

The Program's licensee database indicates that this inspection priority is "accelerated." However, the Radioactive Material License Inspection Report indicates that the inspection was a routine, unannounced inspection.

File No.: 13

Licensee: Central Arkansas Radiation Therapy Institute

Inspection Type: Routine, Special

Inspection Date: 3/14/06

License No.: ARK-654

Priority: 1

Inspectors: KG, KW

Comment:

License authorizes an HDR, which is not indicated on the Program's licensee database.

File No.: 14

Licensee: Mobile Health Services, LLC

Inspection Type: Initial, Announced

Inspection Dates: 11/15/04 and 12/14/04

License No.: ARK-973

Priority: 1

Inspectors: KW, JT

File No.: 15

Licensee: Saline Heart Group, P.A.

Inspection Type: Initial, Announced

Inspection Date: 1/21/05

License No.: ARK-979

Priority: 3

Inspector: KW

File No.: 16

Licensee: Saline Heart Group, P.A.

Inspection Type: Initial, Announced

Inspection Date: 3/28/06

License No.: ARK-993

Priority: 3

Inspectors: KG, SM

File No.: 17

Licensee: GTS, Inc.

Inspection Type: Initial, Announced

Inspection Date: 6/29/06

License No.: ARK-995

Priority: 3

Inspectors: SM, SP, TH

File No.: 18

Licensee: Applied Inspection Services, Inc.

Inspection Type: Increased controls

Inspection Date: 6/15/06

License No.: ARK-576

Priority: N/A

Inspectors: KW, JT

File No.: 19

Licensee: Applied Inspection Services, Inc.

Inspection Type: Increased controls

Inspection Date: 7/27/06

License No.: ARK-576

Priority: N/A

Inspectors: KW, JT

File No.: 20

Licensee: International Testing & Inspection Services, Inc.

Inspection Type: Increased controls

Inspection Date: 8/16/06

License No.: ARK-773

Priority: N/A

Inspector: KW

File No.: 21

Licensee: Caddo Inspections, Inc.  
Inspection Type: Increased controls  
Inspection Date: 6/8/06

License No.: ARK-881  
Priority: N/A  
Inspector: SM

Comment:

The increased control file did not include a copy of the letter documenting the inspection results to the licensee. The documentation was in the routine inspection file.

File No.: 22

Licensee: University of Arkansas for Medical Sciences  
Inspection Type: Increased controls  
Inspection Date: 6/15/06

License No.: ARK-001  
Priority: N/A  
Inspectors: SM, JT

Comment:

The increased controls file did not include a copy of the letter documenting the inspection results to the licensee. The documentation was in the routine inspection file.

File No.: 23

Licensee: H & H X-Ray Services, Inc.  
Inspection Type: Increased controls  
Inspection Date: 5/5/06 and 5/11/06

License No.: ARK-650  
Priority: N/A  
Inspectors: SM, JT, LP

File No.: 24

Licensee: H & H X-Ray Services, Inc.  
Inspection Type: Increased controls - followup  
Inspection Date: 6/20/06 and 6/28/06

License No.: ARK-650  
Priority: N/A  
Inspectors: SM, JT

File No.: 25

Licensee: Northwest Medical Center  
Inspection Type: Increased controls  
Inspection Date: 8/15/06

License No.: ARK-383  
Priority: N/A  
Inspector: SM

Comment:

The increased controls file did not include a copy of the letter documenting the inspection results sent to the licensee. The letter was in the routine inspection file. The letter did not include the standard increased controls language.

File No.: 26

Licensee: PathFinder Energy Services  
Inspection Type: Increased controls/Reciprocity  
Inspection Date: 7/17/06

License No.: REC-336  
Priority: N/A  
Inspectors: SM, LP, TM

Comment:

The increased controls file did not include a copy of the letter documenting the inspection results sent to the licensee. The letter was in the reciprocity file.



### INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1

Licensee: Northwest Medical Center

Inspection Type: Routine, Unannounced, Increased controls

Inspection Date: 8/15/06

License No.: ARK-383

Priority: 3

Inspector: SM

Accompaniment No.: 2

Licensee: International Testing & Inspection Services

Inspection Type: Routine, Unannounced, Increased controls

Inspection Date: 8/16/06

License No.: ARK-773

Priority: 1

Inspector: KM

## APPENDIX D

### LICENSE CASEWORK REVIEWS

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

File No.: 1

Licensee: U.S. Vandium Corporation

Type of Action: Termination

Date Issued: 11/5/03

License No.: ARK-391

Amendment: 22

License Reviewer: GB

Comment:

License termination request of 10/29/03 did not include where the sources were transferred or the results of the last leak test performed on the sources.

File No.: 2

Licensee: URS Corporation

Type of Action: Amendment/Termination

Dates Issued: 6/5/03, 5/28/04

License No.: ARK-730

Amendments: 15, 16

License Reviewer: GB

Comments:

- a) No leak test results submitted with removal of two gauges requested on 5/30/03.
- b) No leak test results submitted with termination request of 5/11/04.

File No.: 3

Licensee: Arkansas State Plant Board

Type of Action: Amendment/Termination

Dates Issued: 9/22/00, 11/21/03

License No.: ARK-351

Amendments: 12, 13

License Reviewer: KW

Comments:

- a) No leak test results submitted with removal of two electron capture devices (ECDs) requested on 5/30/03.
- b) Termination request did not include leak test results.

File No.: 4

Licensee: John Brown University

Type of Action: Termination

Date Issued: 4/8/03

License No.: ARK-527

Amendment: 13

License Reviewer: KW

Comment:

- a) No leak test resulted submitted with termination request. Last leak test occurred on 6/8/98.

File No.: 5

Licensee: Albemarle Corporation

Type of Action: Renewal and Amendments

Dates Issued: 6/12/06, 12/6/05, 6/6/05, 5/18/05  
7/21/03, 4/10/03, 2/28/03

License No.: ARK-717

Amendments: 35 - 41

License Reviewers: GB, KW, SD, SM

Comments:

- a) Eight instances of changes to materials, users or procedures not included in tie-down conditions.
- b) Renewal application, dated 1/31/00 was responded to by Program on 12/20/02. The renewal was issued on 2/28/03 as amendment 35.

File No.: 6

Licensee: Team Industrial Services, Inc.

Type of Action: Amendments

Dates Issued: 9/13/05, 1/20/06, 5/1/06

License No.: ARK-344

Amendments: 50 - 52

License Reviewers: KM, JT, SM

Comments:

- a) The letter requesting change of ownership was not included in the tie down of amendment 51. The request was treated as a name change instead of change of ownership.
- b) The letter requesting removal of storage site was not included in the tie down of amendment 52.

File No.: 7

Licensee: Halliburton Energy Services

Type of Action: Amendments

Dates Issued: 9/16/05, 7/24/06

License No.: ARK-319

Amendments: 39, 40

License Reviewers: JT, SM

File No.: 8

Licensee: University of Arkansas

Type of Action: Amendments

Dates Issued: 9/12/05, 3/8/06, 5/4/06, 8/3/06

License No.: ARK-064

Amendments: 5 - 9

License Reviewers: JT, KW

Comments:

- a) Amendment 6 not signed or dated.
- b) No amendment issued for the decommissioning request and approval of an area formerly used for storage of radioactive waste which removed it from the license and returning it to unrestricted use.
- c) License allows possession of quantities that require financial assurance but no financial instrument exists (i.e., Letter of Intent).

File No.: 9

Licensee: Nucor-Yamato Steel Company

Type of Action: Amendment

Date Issued: 10/23/03

License No.: ARK-722

Amendment: 12

License Reviewer: SM

File No.: 10

Licensee: Schlumberger Technology Corporation  
Type of Action: Amendments  
Dates Issued: 2/28/03, 9/12/05, 10/4/05

License No.: ARK-077  
Amendments: 34 - 36  
License Reviewers: CB, KW, SD

Comment:

Letter requesting name change not in tie down condition for Amendment 34.

File No.: 11  
Licensee: Sterigenics U.S., Inc.  
Type of Action: Amendments  
Dates Issued: 4/4/05, 3/24/06

License No.: ARK-903  
Amendments: 8, 9  
License Reviewers: KW, JT

File No.: 12  
Licensee: Baker Atlas  
Type of Action: Amendments and Increased Controls  
Dates Issued: 9/14/05, 4/19/05, 4/23/03

License No.: ARK-668  
Amendments: 15-17  
License Reviewers: KW, CB

Comment:

Amendment 17 did not include license condition requiring this out-of-state licensee to give two days notice prior to entry into Arkansas. It was dropped from the license sometime between 1995 (the last time full license was issued) and 2006.

File No.: 13  
Licensee: Cat Clinic of Conway  
Type of Action: New and Amendments  
Dates Issued: 7/3/03, 7/30/03, 9/23/03, 9/21/05

License No.: ARK-945  
Amendments: 0 - 3  
License Reviewers: JT, CB, KW

File No.: 14  
Licensee: Cardinal Health Nuclear Pharmacy Services  
Type of Action: Amendment  
Date Issued: 8/28/06

License No.: ARK-642  
Amendment: 5  
License Reviewer: KW

Comment:

A place of use was removed from the license without the decommissioning request and final survey results. In the amendment transmittal letter, dated 8/28/06, the Program allowed continued use of the removed site until a new facility was ready for use, and decommissioning surveys submitted.

File No.: 15  
Licensee: Medical Center of South Arkansas  
Type of Actions: Amendments  
Dates Issued: 1/6/06, 8/8/05

License No.: ARK-384  
Amendments: 90, 91  
License Reviewer: SD

Comment:

Two letters requesting the addition of an authorized user not included in tie-down condition.

File No.: 16

Licensee: Central Arkansas Radiation Therapy Institute  
Type of Actions: Amendments  
Dates Issued: 11/16/04, 3/23/05, 6/21/06

License No.: ARK-654  
Amendments: 50 - 52  
License Reviewer: KW

File No.: 17  
Licensee: Mobile Health Services, LLC  
Type of Actions: Amendments  
Dates Issued: 4/14/06, 7/28/06

License No.: ARK-973  
Amendments: 14, 15  
License Reviewer: KW

Comment:

Letter dated 7/18/06 to add three locations of use not included in tie-down condition.

File No.: 18  
Licensee: University of Arkansas Medical Sciences  
Type of Actions: Amendments  
Dates Issued: 3/28/06, 4/19/06

License No.: ARK-001  
Amendments: 3, 4  
License Reviewers: SM, KW

Comment:

License allows possession of quantities that require financial assurance but no financial instrument exists (i.e., Letter of Intent).

File No.: 19  
Licensee: Hembree Mercy Cancer Center  
Type of Actions: Amendments  
Dates Issued: 12/28/05, 6/13/06

License No.: ARK-824  
Amendments: 17, 18  
License Reviewer: KW

File No.: 20  
Licensee: CARTI/UAMS  
Type of Action: Amendment  
Date Issued: 5/9/05

License No.: ARK-930  
Amendment: 6  
License Reviewer: KW

Comment:

Letters dated 3/22/05 and 3/30/05 to add authorized users not included in tie-down condition.

File No.: 21  
Licensee: Cenark Project Management Services, Inc.  
Type of Action: New  
Date Issued: 5/4/06

License No.: ARK-1001  
Amendment: N/A  
License Reviewer: KW

File No.: 22  
Licensee: Harrison Cardiology Clinic  
Type of Action: New  
Dates Issued: 1/12/04

License No.: ARK-971  
Amendment: N/A  
License Reviewer: KW

APPENDIX E  
INCIDENT CASEWORK REVIEWS

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

File No.: 1

Licensee: Schiabo Larovo-AR LLC

Date of Incident: 1/10/06

Investigation Date: 1/10/06

License No.: N/A

Incident Log No.: 01-06-01

Type of Incident: NORM in scrap metal

Type of Investigation: On-site

File No.: 2

Licensee: Philander Smith College

Date of Incident: 3/1/06

Investigation Date: 3/2/06

License No.: N/A

Incident Log No.: 03-06-01

Type of Incident: Pick up old GL in-vitro kits

Type of Investigation: On-site

File No.: 3

Licensee: Central Arkansas Radiation Therapy Institute

Date of Incident: 11/17/05

Investigation Date: N/A

License No.: ARK-654

Incident Log No.: 04-06-01 (NMED: 060280)

Type of Incident: Medical Event

Type of Investigation: Phone/24 Hour Notification

Comment:

Not identified as an abnormal occurrence on the external NMED server. Program staff provided the review team with documentation indicating the incident had been appropriately coded when forwarded to NMED.

File No.: 4

Licensee: Building and Earth Sciences

Date of Incident: 3/21/06

Investigation Date: 3/21/06

License No.: ARK-918

Incident Log No.: 03-06-02

Type of Incident: Transportation

Type of Investigation: On-site

File No.: 5

Licensee: Cardinal Health

Date of Incident: 4/8/05

Investigation Date: N/A

License No.: ARK-642

Incident Log No.: 04-05-01

Type of Incident: Dispensing Error

Type of Investigation: Phone/30-day report

File No.: 6

Licensee: St. Bernard's Medical Center

Date of Incident: 3/30/04

Investigation Date: N/A

License No.: ARK-365

Incident Log No.: 03-04-02 (NMED: 040303)

Type of Incident: Equipment malfunction

Type of Investigation: Phone

File No.: 7

Licensee: Materials Testing of Arkansas

Date of Incident: 6/8/04

Investigation Date: N/A

License No.: ARK-859

Incident Log No.: 06-04-01 (NMED: 040424)

Type of Incident: Lost Portable Gauge

Type of Investigation: Phone/30-day report

File No.: 8

Licensee: University of Arkansas for Medical Sciences

Date of Incident: 7/6/04

Investigation Date: 8/12/04

License No.: ARK-001

Incident Log No.: 07-04-01

Type of Incident: Overexposures

Type of Investigation: Phone/On-site

File No.: 9

Licensee: Horace Gill Scrap Yard

Date of Incident: 8/2/04

Investigation Date: 8/3/04

License No.: N/A

Incident Log No.: 08-04-01

Type of Incident: Discovery of radioactive device

Type of Investigation: On-site

File No.: 10

Licensee: Alcoa Industrial Chemicals

Date of Incident: 7/22/03

Investigation Date: 8/26/03

License No.: ARK-069

Incident Log No.: 05-03-02 (NMED: 030824)

Type of Incident: General public exposure

Type of Investigation: Phone/On-site

File No.: 11

Licensee: St. Bernard's Medical Center

Date of Incident: 7/2/03

Investigation Date: N/A

License No.: ARK-365

Incident Log No.: 07-03-01 (NMED: 030600)

Type of Incident: Equipment malfunction

Type of Investigation: Phone

File No.: 12

Licensee: University of Arkansas

Date of Incident: 5/22/03

Investigation Date: N/A

License No.: ARK-064

Incident Log No.: 05-03-01 (NMED: 030599)

Type of Incident: Leaking Source

Type of Investigation: Phone

File No.: 13

Licensee: Central Arkansas Radiation Therapy Institute

Date of Incident: 12/4/03

Investigation Date: N/A

License No.: ARK-654

Incident Log No.: 12-03-01 (NMED: 040001)

Type of Incident: Medical Event

Type of Investigation: Phone/24 Hour Notification

File No.: 14

Licensee: St. Bernard's Medical Center

Date of Incident: 10/01/02

Investigation Date: N/A

License No.: ARK-365

Incident Log No.: 12-02-02 (NMED: 030082)

Type of Incident: Equipment malfunction

Type of Investigation: Phone

File No.: 15

Licensee: Central Arkansas Radiation Therapy Institute

License No.: ARK-058

Date of Incident: 12/17/02

Incident Log No.: 12-02-01 (NMED: 030001)

Investigation Date: N/A

Type of Incident: Equipment malfunction

Type of Investigation: Phone

File No.: 16

Licensee: Central Arkansas Radiation Therapy Institute

License No.: ARK-654

Date of Incident: 11/20/02

Incident Log No.: 11-02-02 (NMED: 021143)

Investigation Date: 12/2/06

Type of Incident: Medical Event

Type of Investigation: On-site



ATTACHMENT

November 1, 2006, E-mail from Jared Thompson  
Arkansas' Response to Draft IMPEP Report

ADAMS: ML063110544