

October 31, 2002

Mr. Steven A. Thompson
Executive Director
Environmental Quality Board
Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

Dear Mr. Thompson:

On October 17, 2002, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Oklahoma Agreement State Program. The MRB found the Oklahoma program adequate to protect public health and safety and compatible with the Nuclear Regulatory Commission's (NRC) program.

NRC recognizes the efforts of Oklahoma and the other Agreement States to maintain an adequate and compatible program. During the MRB meeting, the impact of high staff turnover on the Oklahoma Agreement Program after the Agreement became effective was discussed. Oklahoma's efforts to initiate an effective program while at the same time devoting significant effort to hiring and training new staff is commendable. The MRB also discussed the important contribution a stable staff provides to sustaining an adequate level of program performance. We ask that you continue vigilance in this area to minimize the potential for staff turnover.

Section 5.0, page 10, of the enclosed final report presents the IMPEP team's recommendations for the State of Oklahoma. From the information in Mike Broderick's September 6, 2002 letter and discussions at the MRB meeting, we are aware of the actions your staff has taken in response to the recommendations in the draft report. Therefore, we request no additional response.

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

Steven A. Thompson

2

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

Sincerely,

/RA/

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

Enclosure:
As stated

cc: Mike Broderick, Administrator
Radiation Management Section

William Sinclair, UT
OAS Liaison to the MRB

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM
REVIEW OF OKLAHOMA AGREEMENT STATE PROGRAM

JULY 15-19, 2002

FINAL REPORT

U.S. Nuclear Regulatory Commission

1.0 INTRODUCTION

This report presents the results of the review of the Oklahoma Agreement State program. The review was conducted during the period July 15-19, 2002, by a review team consisting of technical staff members from the Nuclear Regulatory Commission (NRC) and the Agreement State of Ohio. Team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Rescission of a Final General Statement of Policy," published in the Federal Register on October 16, 1997, and the November 5, 1999, NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)." Preliminary results of the review, which covered the period of September 29, 2000 to July 12, 2002, were discussed with Oklahoma management on July 19, 2002.

A draft of this report was issued to Oklahoma for factual comment on August 14, 2002. The State responded by letter dated September 6, 2002. The Management Review Board (MRB) met on October 17, 2002 to consider the proposed final report. The MRB found the Oklahoma radiation control program was adequate to protect public health and safety and compatible with NRC's program.

The Oklahoma Agreement State program is administered by the Radiation Management Section (the Section), Land Protection Division, Department of Environmental Quality (the Department). The Department is the designated radiation control agency (see Section 3.3). Organization charts for the Department and the Section are included in Appendix B. At the time of the review, the Oklahoma Agreement State program regulated 244 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 Oklahoma.

In preparation for the review, a questionnaire addressing the common and non-common performance indicators was sent to the Section on April 21, 2002. The Section provided a response to the questionnaire on June 21, 2002. During the review, the review team identified areas in the questionnaire response that needed to be clarified or modified. A copy of the final questionnaire response can be found on NRC's Agencywide Document Access and Management System using the Accession Number ML022190383.

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

Section 2 below, Status of Items Identified in Previous Reviews, is not applicable to the State as this was the initial program 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. 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

The State of Oklahoma became an Agreement State on September 29, 2000. The Agreement includes byproduct material as defined in Section 11e.(1), source and limited quantities of special nuclear materials, and low-level radioactive waste disposal (LLRW) as defined in the Atomic Energy Act of 1954, as amended. The Agreement does not include sealed source and device (SS&D) evaluations.

This was the initial program review. A management orientation meeting was held with the program staff on July 18, 2001, to review and discuss the implementation of the Oklahoma Agreement State Program following the transfer of authority. A follow-up Periodic Meeting was held on February 6, 2002, to review and discuss the status of the Agreement State Program, and to discuss planning for Oklahoma's first IMPEP review.

3.0 COMMON PERFORMANCE INDICATORS

IMPEP identifies five common performance indicators to be used in reviewing both NRC Regional and Agreement State programs. These indicators are: (1) Status of Materials Inspection Program; (2) Technical Quality of Inspections; (3) Technical Staffing and Training; (4) Technical Quality of Licensing Actions; and (5) Response to Incidents and Allegations.

3.1 Status of Materials Inspection Program

The team focused on four factors in reviewing this indicator: inspection frequency, overdue inspections, initial inspection of new licenses, and timely dispatch of inspection findings to licensees. The review team's evaluation is based on the Section's questionnaire responses, data gathered independently from the Section's licensing and inspection data tracking system, the examination of completed licensing and inspection casework, and interviews with management and staff.

The team's review of the Section's inspection priorities verified that inspection frequencies for various types of Oklahoma material licenses are the same as those listed in the NRC Inspection Manual Chapter (IMC) 2800.

The Section maintains a licensee database that provides current inspection data. Based on data provided by the Section, the review team determined that during the review period, the Section had 11 of 58 core inspections that were conducted overdue by more than 25% of the NRC and the Section's inspection frequency. The overdue core inspections ranged from one to four months overdue. There were no overdue core inspections at the time of the review.

In addition, the team identified that 8 of 16 initial inspections exceeded the NRC inspection frequency for initial inspections, ranging from one to 18 months overdue. The overdue initial inspections were all non-core licensees. The Section discovered in May 2002, that five of the overdue initial non-core licenses were not in their database. Apparently, the five licenses were not included in the license database that the NRC provided to the State during the transition.

Once the Section recognized this problem, the licenses were added to their database and the inspections were conducted. These five overdue initial inspections were not counted in the overdue inspection calculation. The review team determined that 20% of the core inspections were conducted at intervals that exceeded NRC frequencies. The review team recommends that the Section take appropriate measures to conduct core inspections, including initial inspections in accordance with the NRC's inspection priority system.

During the review of selected inspection casework, the team evaluated the Section's timeliness in providing inspection findings to the licensees. The team determined that during the review period, the average time for the issuance of inspection findings was 63 days. The Section's goal for issuance of inspection findings is 30 days. The review team noted that in 2002, the average time for issuance of inspection findings was reduced to 35 days. It was also determined that in four of the cases reviewed, no report documenting the inspection findings was issued to licensees. This issue was discussed with the Administrator, Radiation Management Section (the Administrator). The Administrator informed the review team that a plan has been implemented to keep this from recurring. The review team recommends that the Section take appropriate measures to assure timely dispatch of inspection findings to licensees.

During the review period, the Section granted 66 reciprocity permits, of which, 24 permits were core licensees based upon IMC 1220. The 24 core licensees consisted of 5 Priority 1 and 19 Priority 3 licensees. The Section met the IMC 1220 inspection frequencies for Priority 1 licensees by conducting 2 inspections, and for Priority 3 licenses by conducting 8 inspections. New NRC guidance requires totaling all of the Priority 1, 2, and 3 reciprocity licensees, and conducting inspections of 20% of this total. Thus, the Agency met the revised NRC guidance by completing 10 inspections of the 24 permits issued for core licensees.

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

3.2 Technical Quality of Inspections

The team evaluated the inspection reports, enforcement documentation, and inspection field notes and interviewed inspectors for 11 radioactive materials inspections conducted during the review period. The casework included all of the Section's materials license inspectors, and covered inspections of various types including portable gauges, industrial radiography, medical (diagnostic, therapy, and brachytherapy), radiopharmacy, well logging, and academic broad scope. Appendix C lists the inspection casework files reviewed for completeness and adequacy with case-specific comments.

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

The review team noted that there were documentation errors and missing information in some of the license files. These are described in Appendix C. For example, 24 license files did not contain inspection reports or field notes documenting inspection findings. However, inspection letters were sent to the 24 licensees documenting the inspection. This issue was discussed with the inspectors and the Administrator. The review team recommends that all inspections be fully documented, and that license files be complete and accurate.

Accompaniments of three inspectors were conducted by an IMPEP team member during the periods of March 27-28, 2001 and April 1-4, 2002. The inspectors were accompanied during inspections of a nuclear medicine facility, a fixed radiography facility, and a broad scope academic licensee. 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' radiation safety 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 at the licensed facilities.

The Section has an adequate number and types of survey meters to support the current inspection program, as well as for responding to incidents and emergency conditions. The Section has the instrument vendor calibrate their survey instruments. Appropriate, calibrated survey instruments such as GM meters, scintillation detectors, ion chambers, and micro-R meters were observed. Air monitoring equipment is also available for emergency use. The Section can receive support from the Department's radiochemistry laboratory, which is able to conduct sample counting and assay services.

In the response to the questionnaire, the Section reported that two inspectors were accompanied during the review period. However, it was later determined that the Section had not taken credit for two accompaniments conducted by a senior staff member in 2001. Therefore, four inspectors were accompanied during the review period. As of the date of the IMPEP review, no inspector was accompanied by a supervisor in 2002. However, a memorandum dated July 11, 2002, outlines a plan for accomplishing supervisory accompaniments in 2002. The review team recommends that the Section conduct annual accompaniments of both new and experienced inspectors to ensure continued technical quality of inspections and to assist in the training and qualifications of new staff.

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

3.3 Technical Staffing and Training

Issues central to the evaluation of this indicator include the Section'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 responses relative to this

indicator, interviewed Section management and staff, reviewed job descriptions and training records, and considered any possible workload backlogs.

The Section lost one employee prior to becoming an Agreement State and a second person left on November 1, 2000. These two vacancies, during the early stages of the program, placed the Section at a disadvantage in their licensing and inspection efforts. However, the Section filled the vacant positions. The new people are being trained, and the Section is addressing the licensing and inspection backlogs that were created during the first few months of the Agreement. As noted previously, there were no overdue core inspections at the time of this review.

The Section is organized under the Land Protection Division, Department of Environmental Quality. The Section is managed by the Administrator, and has 10 technical staff positions and a part time secretary (shown as a vacant position on the organization chart). The technical staff are divided between a Compliance Unit and an Inspection Unit. The Compliance Unit has one Engineer Intern IV, one Environmental Programs Specialist III, and three Environmental Specialist IIs. The Inspection Unit has one Professional Engineer III (vacant), one Engineer Intern IV (vacant), one Engineer Intern I, one Engineer Intern III, and one Environmental Programs Specialist II. The Administrator reported in the questionnaire that there were no vacant technical positions in the program, and further explained that the two vacant technical positions were added to the organization in case a large number of non-AEA license applications were received in the future. The Section currently regulates AEA materials and x-ray machines except for diagnostic x-ray machines which are regulated by the Health Department. There were no plans to fill the vacant positions at the time of the review.

In general, technical staff are first trained as x-ray inspectors, then as AEA materials inspectors, and finally as AEA license reviewers, depending upon their individual experience and training. Training and qualification requirements for licensing and inspection staff were established in Section 6.2 of the Final Application for Agreement State Status dated December 14, 1999. The requirements set forth are essentially the same training and qualification recommendations developed by NRC Manual Chapter 1246 and the NRC/Organization of Agreement States Joint Working Group. The training files for each staff member contains the courses and training received by the individual, a memorandum listing the activities the individual has received approval to complete, and a listing of training courses to be taken in the future. Staff training requirements include NRC courses, or equivalent training when available. An accompaniment by a senior staff member or manager is required to become an independent inspector. Prior inspection experience is required for an individual to be a license reviewer. Post qualification training in special topics is also given as needed and planned for the future. The training records demonstrate that the technical staff are trained for the tasks that they have been assigned.

Section management is committed to a high degree of training for the staff. The Administrator indicated that upper level management has been very supportive of training opportunities, and training funds are available as appropriate. The review team believes this commitment and funding for training is a program strength, and concluded that the Section has a well balanced staff, and a sufficient number of trained technical personnel to carry out AEA regulatory duties.

Based on the IMPEP evaluation criteria, the review team recommends that Oklahoma's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

3.4 Technical Quality of Licensing Actions

The review team interviewed license reviewers, evaluated the licensing process, and examined licensing casework for 13 specific licenses. Licensing actions were reviewed for completeness, consistency, proper isotopes and quantities, qualifications of authorized users, adequate facilities and equipment, financial assurance, operating and emergency procedures, appropriateness of license conditions, and overall technical quality. The casework files were also reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, product certifications, supporting documentation, consideration of enforcement history, pre-licensing visits, supervisory and peer reviews, and proper signature authority. The files were checked for retention of necessary documents and supporting data.

Licensing casework was selected to provide a representative sample of licensing actions that were completed during the review period. The sampling included the following types of licenses: in-vitro laboratory, well logging, industrial radiography, medical institution, medical private practice, and portable gauge. Licensing actions selected for evaluation included two new licenses, one renewal, seven amendments, and three terminations. A list of the licenses evaluated with case-specific comments can be found in Appendix D.

Overall, the review team found that the licensing actions were thorough, complete, consistent, and of acceptable quality with health and safety issues properly addressed. License tie-down conditions were stated clearly, backed by information contained in the file, and inspectable. The licensee's compliance history was taken into account when reviewing renewal applications and amendments. The exemptions noted in the questionnaire responses were determined to be appropriate and well documented by license conditions.

In most cases, license reviewers used the appropriate licensing guides (NUREG 1556s) and standard license conditions. However, some administrative issues were noted and discussed with the staff. In all three of the terminations reviewed, the team noted that licenses were terminated by issuing termination letters, but the licenses were not amended to reflect that they had been terminated. The team discussed the importance that all terminations need to be terminated by a license amendment. The team also discussed that NRC NUREG 1556, Volume 20, "Consolidated Guidance About Administrative Licensing Procedures," as providing guidance on administrative procedures related to the licensing process, amendments, and license terminations. The review team recommends that all license terminations be terminated by a license amendment.

The Section's licensing process requires all licensing actions to be reviewed for administrative completeness and a letter sent to the licensee/applicant within 60 days from the receipt of the action. The Administrator confirmed that this initial review included a cursory evaluation for potential health and safety issues. Once administrative completeness has been determined, the technical review is conducted and a Notice of Deficiency is prepared, if needed. The completed action receives a peer review and a review by one of the Department's attorneys. Finally, the Administrator reviews and signs the license. Licenses are issued for a 10-year period under a timely renewal system, and a complete license is issued for each licensing

action. The Section currently has two staff members that are fully qualified to conduct licensing casework. One additional staff member is in the process of becoming qualified and has been preparing administrative completeness letters.

The Administrator and the licensing staff are concerned about the backlog of licensing actions and are looking for ways to manage the workload and improve the efficiency of the process. The team noted that after an administrative completeness letter has been issued, no timeliness goals have been established to complete actions. The team discussed NRC's Licensing Tracking System, goals of completing any new, amendment, or termination action in 90 days, and renewals in 180 days, and the successful use of a Technical Assistant for entering data into the system.

The team inquired about the 30 renewals that are pending, of which 19 actions are over a year old. The staff related, and the Administrator concurred, that a cursory review of all pending renewals was performed to make sure that there were no significant changes that would compromise health and safety at the licensed facility or to members of the public. Following this review, the licensing actions were assigned a priority for completing the action. To reduce the back log of renewals, the Section is considering extending some of the licenses by regulation. The team discussed that some of the licenses may have already been extended by regulation by the NRC in April 1996 (61 FR 1109), prior to their transfer to Oklahoma, and could be identified by a letter in the license file. The team advised against extending the expiration date on these licenses a second time.

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

3.5 Response to Incidents and Allegations

In evaluating the effectiveness of the Section's actions in responding to incidents, the review team examined the Section's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Oklahoma in the Nuclear Material Events Database (NMED) against those contained in the Section files, and evaluated the casework and supporting documentation for nine material incidents. A list of the incident casework examined with case-specific comments is included in Appendix E. The team also reviewed the Section's response to six allegations involving radioactive materials, including the four that were referred to the Section by the NRC during the review period.

The Section has procedures for responding to events and allegations, documentation, event reporting, and the use of NMED software. These procedures were reviewed and discussed with the Section managers and staff, including file documentation, the State's equivalent to the Freedom of Information Act, NMED, and notification of incidents to the NRC Operations Center. The Section follows the guidance found in the Office of State and Tribal Programs (STP) Procedure SA-300, "Reporting Material Events."

The Administrator assigns responsibility for initial response and follow-up actions of materials incidents or allegations to any qualified member of the materials program. The inspector/investigator is responsible for the investigation, documentation and database entry of the incident or allegation. The Section maintains a database of all incidents using NMED

software, and information is transferred from this database to the national NMED, as appropriate.

The Section provided the team a list of eleven radioactive material incidents involving Agreement material. The team reviewed nine incidents, which included seven significant events, one 30-60 day notification event, and one event that did not meet the reporting criteria as defined in STP Procedure SA-300. All required notifications to the NMED have been made, including follow-up information. All but one notification was made within the period required in SA-300.

The incidents selected for review included the following categories: overexposure, damage to equipment, stolen gauges, loss of radioactive material, and unauthorized use of radioactive material. The review team found that the Section's responses to incidents were complete and comprehensive. Initial responses were prompt and well coordinated, and the level of effort was commensurate with the health and safety significance. The Section dispatched inspectors for on-site investigations when appropriate, and took suitable enforcement and follow-up actions.

In evaluating the effectiveness of the Section's actions responding to allegations, the review team examined the Section's questionnaire response relative to this indicator and a listing of allegations provided during the review. The casework for four allegations referred by the NRC was reviewed, as well as the casework for two additional allegations reported directly to the State. The review of the casework and the files indicated that the Section took prompt and appropriate action in response to the concerns raised. Case files are secured, the alleged's identity is protected, and the allegations were appropriately closed. There were no performance issues identified from the review of the casework documentation.

Based on the IMPEP evaluation criteria, the review team recommends that Oklahoma's performance with respect to the indicator, Response to Incidents and Allegations, be found satisfactory.

4.0 NON-COMMON PERFORMANCE INDICATORS

IMPEP identifies four non-common performance indicators to be used in reviewing Agreement State Programs: (1) Legislation and Program Elements Required for Compatibility; (2) Sealed Source and Device Evaluation Program; (3) Low-Level Radioactive Waste Disposal Program; and (4) Uranium Recovery Program. Only the first non-common performance indicator was applicable to this review.

4.1 Legislation and Program Elements Required for Compatibility

4.1.1 Legislation

Along with the Section'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. Legislative authority was granted in 1999 (Oklahoma Statutes, Title 27A) in the Oklahoma Environmental Quality Act, the Oklahoma Environmental Quality Code, and the Oklahoma Radiation Management Act. The Department of Environmental Quality is designated as the State's radiation control agency. The review team noted that the legislation had not changed since the Agreement was signed.

4.1.2 Program Elements Required for Compatibility

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

The State regulations for radiation management are located in Chapter 410 of the Oklahoma Administrative Code, Title 252, and apply to all sources of radiation except materials subject to regulation under the NRC or a diagnostic x-ray facility regulated by the Oklahoma Department of Public Health. Oklahoma regulations require a license for all persons who receive, possess, use, transfer, own, handle, dispose, store, house, or acquire sources of radiation, including a limited number of naturally occurring and accelerator-produced radionuclides.

Oklahoma adopts regulations for AEA materials by reference, and the Oklahoma regulations initially became effective at the time of the Agreement, September 29, 2000. During the 2002 legislative session, the Oklahoma Legislature adopted by reference the NRC regulations affecting the Agreement, as published on January 1, 2001. The amended regulations became effective on June 13, 2002. The review team believes that adopting regulations by reference allows the State to implement regulations quickly and avoid potential compatibility conflicts. Also, it reduces confusion for reciprocity licensees and multi-State licensees. At the MRB meeting on October 17, 2002, the MRB and the team agreed that the adoption of rules by reference is a good practice.

The Administrator has the responsibility for maintaining the Oklahoma Radiation Management Regulations compatible with the NRC regulations. The rule adoption process involves hearings before the Radiation Management Advisory Council which recommends changes to the Environmental Quality Board. The Board approves or disapproves the proposed amendments. The State Legislature considers the amendments during their next session, and the Governor can veto proposed amendments. Emergency regulations can be effected immediately with the Governor's signature, but they are effective only until the end of the next legislative session. As noted in the questionnaire, the Council usually considers rules in the Summer or Fall, the Board passes them in the Winter, and they go into effect in May or June of the following year.

The team found that the public and other interested parties are offered an opportunity to comment on proposed regulation changes; the rules are not subject to "sunset" laws; and it was noted that draft regulations were sent to the NRC for review and comment.

The State has no overdue regulations required for compatibility. The Section will need to address the following regulations in upcoming rulemaking or by adopting alternate legally binding requirements:

- "Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material," 10 CFR Parts 30, 31, and 32 amendments (65 FR 79162) that became effective February 16, 2001.
- "Revision of the Skin Dose Limit," 10 CFR Part 20 amendment (67 FR 16298) that became effective April 5, 2002.

- “Medical Use of Byproduct Material,” 10 CFR Parts 20, 32, and 35 amendments (67 FR 20249) that became effective April 24, 2002.

Based on IMPEP evaluation criteria, the review team recommends that Oklahoma’s performance with respect to the indicator, Legislation and Program Elements Required for Compatibility, be found 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 Regulatory Authority and Assumption Thereof by States Through Agreement," to allow a State to seek an amendment for the regulation of LLRW as a separate category. Those States with existing Agreements prior to 1981 were determined to have continued LLRW disposal authority without the need of an amendment. Although the Oklahoma 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 Oklahoma and they belong to the Central Interstate LLRW Authority. Accordingly, the review team did not review this indicator.

5.0 SUMMARY

As noted in Sections 3 and 4 above, the review team found Oklahoma’s performance to be satisfactory for all performance indicators. Accordingly, the review team recommended and the MRB concurred in finding the Oklahoma Agreement State program to be adequate and compatible with NRC's program. Based on the results of the current IMPEP review, the review team recommended, and the MRB agreed, that the next full review should be in approximately four years.

Below are the recommendations, as mentioned earlier in the report, for evaluation and implementation, as appropriate, by the State, as well as the good practice identified by the review team and the MRB.

RECOMMENDATIONS

1. The review team recommends that the Section take appropriate measures to conduct core inspections, including initial inspections in accordance with the NRC’s inspection priority system. (Section 3.1)
2. The review team recommends that the Section take appropriate measures to assure timely dispatch of inspection findings to licensees. (Section 3.1)
3. The review team recommends that all inspections be fully documented, and that license files be complete and accurate. (Section 3.2)

4. The review team recommends that the Section conduct annual accompaniments of both new and experienced inspectors to ensure continued technical quality of inspections and to assist in the training and qualifications of new staff. (Section 3.2)
5. The review team recommends that all license terminations be terminated by a license amendment. (Section 3.4)

GOOD PRACTICE:

The review team believes that adopting regulations by reference allows the State to implement regulations quickly and avoid potential compatibility conflicts. Also, it reduces confusion for reciprocity licensees and multi-State licensees. At the MRB meeting on October 17, 2002, the MRB and the team agreed that the adoption of rules by reference is a good practice. (Section 4.2)

LIST OF APPENDICES AND ATTACHMENTS

Appendix A	IMPEP Review Team Members
Appendix B	Oklahoma Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews
Attachment	September 6, 2002 Letter from Mike Broderick Oklahoma's Response to Draft IMPEP Report

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	Area of Responsibility
Richard L. Woodruff, Region II	Team Leader Technical Staffing and Training Legislation and Program Elements Required for Compatibility
Linda McLean, Region IV	Status of Materials Inspection Program Technical Quality of Inspections Inspection Accompaniments
Neelam Bhalla, Region I	Technical Quality of Licensing Actions
Mike Snee, Ohio	Response to Incidents and Allegations

APPENDIX B

OKLAHOMA

ORGANIZATION CHARTS
(ML022190297)

APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT ARE INCLUDED FOR COMPLETENESS ONLY; NO SIGNIFICANT COMMENTS WERE IDENTIFIED BY THE IMPEP TEAM.

File No.: 1

Licensee: Grede-Pryor (Mid America Casting, Inc.)

License No.: OK-18099-01

Location: Pryor, OK

Inspection Type: Routine, Unannounced

License Type: Fixed Radiography

Priority: 1

Inspection Date: 3/27/01

Inspector: MI

Comments:

- a) Inspection conducted overdue, routine inspection was due 8/00.
- b) Inspection report issued late on 8/8/01.
- c) Inspection date on report is incorrect.
- d) Next inspection date is incorrect, should be 3/03 not 3/04.

File No.: 2

Licensee: Edmond Regional Medical Center, LLC

License No.: OK-16494-01

Location: Edmond, OK

Inspection Type: Routine, Unannounced

License Type: Nuclear Medicine

Priority: 3

Inspection Date: 3/28/01

Inspector: MI

Comment:

- a) The license file was missing previous NRC inspection reports. Last report in file is dated 4/6/93.

File No.: 3

Licensee: Oklahoma State University

License No.: OK-00237-03

Location: Stillwater, OK

Inspection Type: Routine, Unannounced

License Type: Broad Scope Academic

Priority: 2

Inspection Dates: 4/1-4/02

Inspector: PB, SH

Comments:

- a) Inspection conducted overdue, routine inspection was due 12/00.
- b) Inspection report issued late on 7/3/02.

File No.: 4

Licensee: Cancer Care Associates

License No.: OK-27631-01

Location: Tulsa, OK

Inspection Type: Routine, Unannounced

License Type: Medical-HDR

Priority: 1

Inspection Date: 4/30/01

Inspector: SH

Comment:

- a) Inspection report issued late on 6/12/01.
- b) Supervisory initials not on form.

File No.: 5

Licensee: The Rosel Company
Location: Major County (Temporary job site)
License Type: Well Logger
Inspection Date: 4/18/02

License No.: KS license 27-C057-01
Inspection Type: Reciprocity, Unannounced
Priority: 3
Inspector: JF

File No.: 6

Licensee: Carter Burgess
Location: Oklahoma City, OK
License Type: Portable Gauge
Inspection Date: 6/18/02

License No.: OK-27668-01
Inspection Type: Routine, Announced
Priority: 5
Inspector: GM, DY

Comment:

- a) This file is one of the five new licensees that were missing from the database supplied by NRC.
- b) Initial inspection was conducted overdue, (license issued 6/00).
- c) Inspection report not issued at the time of the review.

File No.: 7

Licensee: Iris NDT
Location: Tulsa, OK
License Type: Industrial Radiography
Inspection Date: 2/14/02

License No.: OK-30246-01
Inspection Type: Routine, Unannounced
Priority: 1
Inspector: MI

Comments:

- a) Inspection conducted overdue, routine inspection due 8/01.
- b) Due date entry in database incorrect.

File No.: 8

Licensee: Computalog Wireline Services, Inc
Location: Oklahoma City, OK (Field Office)
License Type: Wireline Services
Inspection Date: 3/28/02

License No.: OK-26891-01
Inspection Type: Routine, Unannounced
Priority: 3
Inspector: JF

Comment:

- a) Inspection report issued late on 7/12/02.

File No.: 9

Licensee: Syncor International Corporation
Location: Oklahoma City, OK
License Type: Radiopharmacy
Inspection Date: 11/14/01

License No.: OK-23359-02MD
Inspection Type: Routine, Unannounced
Priority: 1
Inspector: MI, KS

Comment:

- a) No inspection report or field notes documenting inspection findings in license file.

File No.: 10

Licensee: Syncor International Corporation

Location: Tulsa, OK

License Type: Radiopharmacy

Inspection Date: 11/01/01

License No.: OK-19583-02MD

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: MI, KS

Comment:

a) No inspection report or field notes documenting inspection findings in license file.

File No.: 11

Licensee: Eastern Oklahoma Medical Center

Location: Poteau, OK

License Type: Nuclear Medicine

Inspection Date: 2/19/01

License No.: OK-16700-01

Inspection Type: Routine, Unannounced

Priority: 3

Inspector: MI

Comment:

a) No inspection report or field notes documenting inspection findings in license file.

INSPECTOR ACCOMPANIMENTS

In addition, the following inspection accompaniments were performed as part of the IMPEP review.

Accompaniment No.: 1

Licensee: Grede-Pryor (Mid America Casting, Inc.)

Location: Pryor, OK

License Type: Industrial Radiography

Inspection Date: 3/27/01

License No.: OK-18099-01

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: MI

Accompaniment No.: 2

Licensee: Edmond Regional Medical Center, LLC

Location: Edmond, OK

License Type: Nuclear Medicine

Inspection Date: 3/28/01

License No.: OK-16494-01

Inspection Type: Routine, Unannounced

Priority: 2

Inspector: MI

Accompaniment No.: 3

Location: Stillwater, OK

License Type: Broad Scope Academic

Inspection Dates: 4/1-4/02

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: PB, SH

APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT ARE INCLUDED FOR COMPLETENESS ONLY; NO SIGNIFICANT COMMENTS WERE IDENTIFIED BY THE IMPEP TEAM.

File No.: 1

Licensee: Engineering Services and Testing

Location: Moore, OK

License Type: Portable Gauge

Date Issued: 10/4/01

License No. : OK-31008-01

Amendment No. : 0

Type of Action: New

License Reviewer: PB

File No.: 2

Licensee: Central NDT, Inc.

Location: Yale, OK

License Type: Industrial Radiography

Date Issued: 1/31/02

License No.: OK-31017-01

Amendment No.: 0

Type of Action: New

License Reviewer: PB

File No.: 3

Licensee: Muskogee Regional Medical Center

Location: Muskogee, OK

License Type: Medical (Teletherapy)

Date Issued: 2/25/02

License No.: OK-13157-02

Amendment No.: none

Type of Action: Termination

License Reviewer: SH

Comment:

- a) The license was terminated through a letter, but a license amendment stating that it had been terminated was not issued.

File No.: 4

Licensee: Medical Arts Laboratory

Location: Oklahoma City, OK

License Type: In-Vitro Testing Lab

Date Issued: 3/20/02

License No.: OK-12489-01

Amendment No.: none

Type of Action: Termination

License Reviewer: SH

Comment:

- a) The license was terminated through a letter, but a license amendment stating that it had been terminated was not issued.

File No.: 5

Licensee: Weder Services

Location: Woodward, OK

License Type: Portable Gauge

Date Issued: 1/27/02

License No.: 35-27671-02

Amendment No.: none

Type of Action: Termination

License Reviewer: SH

Comment:

- a) The license was terminated through a letter, but a license amendment stating that it had been terminated was not issued.

File No.: 6

Licensee: Four Point Reclamation Services
Location: El Reno, OK
License Type: Portable Gauge
Date Issued: 5/3/02

License No.: OK-27452-01
Amendment No.: 4
Type of Action: Amendment
License Reviewer: SH

File No.: 7

Licensee: St. Francis Hospital Outpatient Imaging Center
Location: Tulsa, OK
License Type: Limited Medical
Date Issued: 7/2/02

License No.: OK-13341-01
Amendment No.: 22
Type of Action: Amendment
License Reviewer: SH

File No.: 8

Licensee: Superior Pipe Inspection, Inc.
Location: Tulsa, OK
License Type: Portable Gauges
Date Issued: 5/14/01

License No.: OK-27452-01
Amendment No.: 3
Type of Action: Amendment
License Reviewer: PB

File No.: 9

Licensee: Clairemore Regional Hospital
Location: Clairemore, OK
License Type: Limited Medical
Date Issued: 4/12/02

License No.: OK-16298-01
Amendment No.: 17
Type of Action: Amendment
License Reviewer: PB

File No.: 10

Licensee: Cancer Treatment Center of Tulsa
Location: Tulsa, OK
License Type: Limited Medical
Date Issued: Pending

License No.: OK-27041-01
Amendment No.: 15
Type of Action: Renewal
Administrative Reviewer: JF

File No.: 11

Licensee: Capital X-Ray Services, Inc.
Location: Tulsa, OK
License Type: Industrial Radiography
Date Issued: 11/9/01

License No.: OK-11114-02
Amendment No.: 02
Type of Action: Amendment
License Reviewer: PB

File No.: 12

Licensee: St. Francis Hospital
Location: Tulsa, OK
License Type: Medical (cardiovascular brachytherapy)
Date Issued: 6/20/02

License No.: OK-07163-01
Amendment No.: 71
Type of Action: Amendment
License Reviewer: PB

File No.: 13

Licensee: BP Pipelines (North America), Inc.

Location: OK

License Type: Oil Analysis

Date Issued: 3/27/02

License No.: OK-24680-03

Amendment No.: none

Type of Action: Renewal

License Reviewer: SH

Comment:

- a) The renewed license was not given a subsequent amendment number to differentiate it from the previously issued license.

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY; NO SIGNIFICANT COMMENTS WERE IDENTIFIED BY THE IMPEP TEAM.

File No.: 1

Licensee: APAC-Oklahoma, Inc.

Site of Incident: Interstate 44, miles 144 - 145

Date of Incident: 6/17/01

Investigation Date: 6/17/01

License No.: OK-26937-01

Incident Log No.: NMED #011081

Type of Incident: Damaged Equipment

Type of Investigation: Site

Summary of Incident and Final Disposition: A Troxler Model 4640 moisture-density nuclear gauge was damaged at a job site when a car ran over the gauge. The gauge was secured at the scene and then sent to the manufacturer for disposal. Wipe tests failed to find any contamination. The state performed an on-site inspection of the licensee on 6/18/01. No violations were issued due to this incident.

File No.: 2

Licensee: Geo Systems Engineering, Inc.

Site of Incident: Tulsa, OK

Date of Incident: 4/20/01

Investigation Date: 4/23/01

License No.: OK-27597-02

Incident Log No.: NMED #010358

Type of Incident: Stolen gauge

Type of Investigation: Site

Summary of Incident and Final Disposition: A Humboldt model 5001-B moisture-density gauge was reported stolen by the licensee. The chain securing the gauge was cut and the gauge was stolen from a company's truck that was parked at the residence of the gauge operator. The gauge was discovered on 4/25/01 in Tulsa, Oklahoma. The licensee recovered the gauge and performed a leak test that showed no contamination. No violations were issued due to this incident.

File No.: 3

Licensee: Integris Baptist Medical Center

Site of Incident: Oklahoma City, OK

Date of Incident: 6/21/01

Investigation Date: 7/3/01

License No.: OK-110222-01

Incident Log No.: NMED #011085

Type of Incident: Unplanned dose to fetus

Type of Investigation: Site, phone

Summary of Incident and Final Disposition: Licensee reported that 12.36 millicuries of I-131 was administered to a pregnant patient. The patient was asked if she was pregnant prior to the administration of the I-131, to which her reply was negative. A fetal dose assessment showed a fetal whole body dose of 3.3 rad and a fetal thyroid dose of 40 rad. No adverse affects to the fetus are anticipated. The Section performed an inspection of the licensee and verified the fetal dose assessment. The licensee revised procedures to prevent a similar incident.

File No.: 4

Licensee: IRISNDT, Inc.

Site of Incident: Tulsa, OK

Date of Incident: 12/1/00

Investigation Date: 12/18/00

License No.: OK-30246-01

Incident Log No.: NMED #011083

Type of Incident: Overexposure

Type of Investigation: Site

Summary of Incident and Final Disposition: Licensee reported an over exposure to a radiographer. Dosimetry results for the month of October 2000 showed a dose of 1.19 rem with a yearly total of 5.16 rem. The radiographer claimed that the dose was to the badge only. Investigation by the Section determined that this explanation was not plausible. The dose was assigned to the radiographer's lifetime dose record. A violation was issued to the licensee. The licensee committed to increased supervisory oversight.

File No.: 5

Licensee: Standard Testing & Engineering

Site of Incident: Oklahoma City, OK

Date of Incident: 2/10/01

Investigation Date: 2/11/01

License No.: OK-17054-01

Incident Log No.: NMED #010123

Type of Incident: Stolen Gauge

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported the theft of a Troxler model 3430 moisture-density gauge. The gauge was stolen from the back of an employee's truck while parked at his residence. The licensee reported that the gauge was triple locked in the back of the truck. The gauge was found intact by a member of the public on 2/17/01 in Del City, Oklahoma. A leak test that was performed showed no contamination.

File No.: 6

Licensee: Standard Testing & Engineering

Site of Incident: Oklahoma City, OK

Date of Incident: 12/20/01

Investigation Date: 12/21/01

License No.: OK-17054-01

Incident Log No.: NMED #020007

Type of Incident: Stolen Gauge

Type of Investigation: Site

Summary of Incident and Final Disposition: The licensee reported the theft of a Troxler model 3430 moisture-density gauge. The chain securing the gauge was cut and the gauge stolen from the back of an employee's truck while parked at a fast food restaurant in Oklahoma City. The operator did not notice that the gauge was missing until he arrived at the job site. The gauge has not been recovered. The Section conducted a reactive inspection of the licensee on 12/21/01. Inspection frequency was increased and the licensee was re-inspected on 7/11/02. A violation is pending for the lack of control over radioactive material.

File No.: 7

Licensee: Azhar Amil, M.D., d.b.a. The Heart Clinic

License No.: OK-27669-01

Site of Incident: Edmond, OK

Incident Log No.: NMED #020544

Date of Incident: 5/6/02

Type of Incident: Unauthorized use of radioactive material

Investigation Date: 5/24/02

Type of Investigation: Site

Summary of Incident and Final Disposition: The licensee reported that a 6 millicurie dose of Tc-99M was given to an individual without being prescribed by a physician. Investigation by the Section determined that a nuclear medicine technician performed a breast scan on another employee of the clinic in order to impress the physician. The Section issued a violation to the licensee for the unauthorized use of radioactive material. The Section also plans action against the nuclear medicine technician.

File No.: 8

Licensee: Schlumberger Technology Corp.

License No.: OK-00090-05

Site of Incident: Canadian County, OK

Incident Log No.: NMED #020715

Date of Incident: 4/22/02

Type of Incident: Abandoned well-logging source

Investigation Date: 4/23/02

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported the abandonment of a 16 curie Am-241:Be sealed source and a 1.7 curie Cs-137 sealed source. The licensee failed to obtain the Section's approval prior to the abandonment of the sources. A violation was issued due to failure to obtain prior approval before abandonment of well-logging sources.

File No.: 9

Licensee: BJ Services, Co.

License No.: OK-19649-02

Site of Incident: Clinton, OK

Incident Log No.: OK010009

Date of Incident: 6/3/01

Type of Incident: Damaged gauge

Investigation Date: 6/6/01

Type of Investigation: Site

Summary of Incident and Final Disposition: A SGO density gauge containing 100 mCi of Cs-137 was damaged when the bracket securing the gauge to a truck failed. Licensee personnel witnessed the incident and control of the gauge was not lost. The gauge was repaired by a licensed service provider and returned to service. The Section performed an on-site inspection and determined that the licensee's actions were appropriate.

ATTACHMENT

September 6, 2002 Letter from Mike Broderick
Oklahoma's Response to Draft IMPEP Report

ML022610126