

April 28, 2009

MEMORANDUM TO: Elmo Collins, Regional Administrator
Region IV

FROM: Kathleen N. Schneider, Senior Project Manager **/RA/**
Division of Materials Safety and State Agreements
Office of Federal and State Materials
and Environmental Management Programs

SUBJECT: OPPORTUNITY TO COMMENT ON THE DRAFT REGION IV
INTEGRATED MATERIALS PERFORMANCE EVALUATION
PROGRAM REPORT

A review team comprised of members from the Office of Federal and State Materials and Environmental Management Programs, Region III, the State of Ohio, and the State of Washington performed an Integrated Materials Performance Evaluation Program (IMPEP) review of the Region IV radioactive materials program during the weeks of March 23 and March 30, 2009. I was the team leader for the review. Enclosed for your review is the draft IMPEP report, which documents the review. The review team's findings were discussed with you and other Region IV managers on March 27, 2009. The Uranium Recovery review was discussed with Region IV managers on April 3, 2009.

The review team's proposed recommendation is that the Region IV radioactive materials program be found adequate to protect public health and safety. The final determination of the adequacy of your program, based on the review team's report, will be made by a Management Review Board (MRB) composed of U.S. Nuclear Regulatory Commission managers and an Agreement State program manager who serves as a liaison to the MRB.

In accordance with procedures for implementation of IMPEP, we are providing you with a copy of the review team's draft report for your review and comment prior to submitting the report to the MRB. Comments are requested within 4 weeks from your receipt of this memorandum. This schedule will permit the issuance of the final report in a timely manner that will be responsive to your needs.

The team will review your response, make any necessary changes to the report, and issue it to the MRB as a proposed final report. Our preliminary scheduling places the Region IV MRB meeting in the week of June 14, 2009. I will coordinate with you to establish the date for the MRB review of the Region IV report.

If you have any questions regarding the enclosed draft report, please contact me at (301) 415-2320.

Enclosure: Draft Region IV IMPEP Report

cc: A. Howe, RIV

E. Collins

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM
REVIEW OF THE NRC REGION IV RADIOACTIVE MATERIALS PROGRAM

March 23 - April 3, 2009

DRAFT REPORT

Enclosure

1.0 INTRODUCTION

This report presents the results of the review of the U.S. Nuclear Regulatory Commission (NRC) Region IV radioactive materials program. The review was conducted during the period of March 23 – April 3, 2009, by a review team comprised of technical staff members from NRC and the States of Ohio and Washington. Team members are identified in Appendix A. The review was conducted in accordance with the “Implementation of the Integrated Materials Performance Evaluation Program and Rescission of Final General Statement of Policy,” published in the *Federal Register* on October 16, 1997 and NRC Management Directive 5.6, “Integrated Materials Performance Evaluation Program (IMPEP),” dated February 26, 2004. Preliminary results of the review, which covered the period of April 2004 to March 2009, were discussed with Region IV managers on March 27, 2009, and April 3, 2009.

[A paragraph on the results of the Management Review Board (MRB) meeting will be included in the final report.]

The Region IV radioactive materials program is administered by the Director, Division of Nuclear Materials Safety (the Division), who reports directly to the Regional Administrator. Organization charts for Region IV and the Division are included as Appendix B. At the time of the review, the Division regulated approximately 574 specific licenses authorizing the possession and use of byproduct, source, and special nuclear materials.

In preparation for the review, a questionnaire addressing the common and non-common performance indicators was sent to the Division on December 22, 2008. The Division provided its response to the questionnaire on March 6, 2009. A copy of the questionnaire response may be found in NRC’s Agencywide Documents Access and Management System (ADAMS) using Accession Number ML090930292.

The review team’s general approach for conduct of this review consisted of: (1) examination of the Division’s response to the questionnaire; (2) analysis of quantitative information from the licensing, inspection, and allegation databases, as well as ADAMS; (3) technical review of selected regulatory actions; (4) field accompaniments of three of the Division’s radioactive materials inspectors; and (5) interviews with staff and managers. The review team evaluated the information gathered against the established criteria for each common and applicable non-common performance indicator and made a preliminary assessment of the Division’s performance.

Section 2 below discusses Region IV’s actions in response to recommendations made following the previous review. Results of the current review of the common performance indicators are presented in Section 3. Section 4 discusses results of the applicable non-common indicators, and Section 5 summarizes the review team’s findings.

2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded on April 8, 2004, the review team made one recommendation in regard to program performance. The current status of the recommendation is as follows:

- a) The review team recommends that guidelines be provided to the Regions on revising inspection frequencies for licensees who were extended due to good performance prior to Temporary Instruction 2800/033, dated December 31, 2002. (Section 3.2)

Current Status: Guidance was provided to the Regions in a May 11, 2004 memorandum from the Division of Industrial and Medical Nuclear Safety, Office of Nuclear Material Safety and Safeguards, and was implemented by all NRC Regions subsequent to the 2004 Region IV IMPEP Review. This recommendation is closed.

3.0 COMMON PERFORMANCE INDICATORS

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

3.1 Technical Staffing and Training

Issues central to the evaluation of this indicator include the Division'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 Division's questionnaire response relative to this indicator, interviewed Division managers and staff, and reviewed job descriptions, training plans, and training records and considered any possible workload backlogs in evaluating this indicator.

During the 2004 IMPEP review, the Division was composed of three branches: the Nuclear Materials Licensing Branch, the Nuclear Materials Inspection Branch, and the Fuel Cycle and Decommissioning Branch. In 2006, the Division reorganized into the Nuclear Materials Safety Branch A (Branch A), the Nuclear Materials Safety Branch B (Branch B) and the Repository & Spent Fuel Safety Branch. The reorganization consolidated the uranium recovery and decommissioning activities into Branch B in order to focus the Repository & Spent Fuel Safety Branch on the anticipated workload from the high-level waste repository application from the U.S. Department of Energy. The Division is managed by a Director. The previous Senior Materials Analyst position is now a Deputy Director position within the Division. Each branch is headed by a Branch Chief.

The Division experienced considerable staff turnover during the review period. One branch chief and 11 staff members either retired or transferred to other NRC positions. At the time of the review, the Division had seven materials inspectors, three materials license reviewers, one licensing assistant, and one inspector who primarily performed decommissioning inspections. In its response to the questionnaire, the Division reported that three technical staff members had been hired during the review period. Technical staffing and qualifications of the uranium recovery inspectors are discussed in Section 4.1.1 of this report.

There were four technical position vacancies in the Division at the time of the on-site review as a result of two recent retirements, one recent transfer, and a new position that was added to reflect increased uranium recovery inspection activities. One vacancy is for an inspector in Branch A. Three vacancies in Branch B are for a decommissioning/uranium recovery inspector, a license reviewer, and a decommissioning inspector. At the time of the review, Division

managers were reviewing applications and scheduling interviews with qualified candidates. When these positions are filled, the Division will have a staff of 17 direct full-time equivalents devoted to the radioactive materials program, including the uranium recovery effort.

The Division uses Inspection Manual Chapter (IMC) 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area," and associated procedures as its qualification and training program. The qualifications of the staff were determined from the questionnaire, training records, and interviews of managers and personnel. The review team determined that the staff is well qualified from an education and experience standpoint. All staff has at least a Bachelor's degree in the one of the sciences or has equivalent training and experience.

Generally, newly hired inspectors and license reviewers are trained and certified in a reasonable time period. In cases where completion of the qualification journal or certification process took longer than originally expected, the Branch Chiefs adequately documented the exception and justification in the appropriate personnel files.

The Division has a policy of qualifying personnel as either license reviewers or inspectors; however, the Division has implemented a voluntary cross-training program among staff of Branches A and B. This allows Division managers to have flexibility to allocate resources where needed and to readjust the workload between licensing and inspection, as necessary.

The review team determined that Region IV has a well-organized system for planning, approving, and tracking training. Division managers were fully cognizant of the qualification status and training plans for their staff, and the managers exhibited a commitment to training. Technical staff members regularly attended specialty training courses and refresher training and appeared to maintain technical currency for their assigned positions. The review team concluded that Region IV has a good mix in staffing for materials licensing and inspection activities, as well as decommissioning activities.

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

3.2 Status of Materials Inspection Program

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

The review team verified that the Division adheres to the inspection priorities prescribed in IMC 2800, "Materials Inspection Program." The Division appropriately modified inspection schedules in response to revisions to IMC 2800 during the review period.

The review team determined that the Division conducted 382 inspections of high priority (Priority 1, 2, and 3) licensees during the review period. The review team identified 11 of these inspections as performed overdue by more than 25 percent of the inspection frequency listed in IMC 2800. Six of the overdue inspections had been delayed in order to conduct the Increased Controls inspections coincidental with the health and safety inspection. The remaining overdue inspections can be attributed to input errors in the Licensing Tracking System. Region IV covers a significant geographical area, and Division managers schedule inspections in remote locations to minimize resource implications when possible. The review team determined that the Division conducted 118 initial inspections of new radioactive materials licenses during the review period. Of the 118 initial inspections, 4 were performed greater than 12 months after license issuance. Overall, the review team calculated that the Division performed 3 percent of all Priority 1, 2, and 3 inspections and initial inspections overdue during the review period.

The timeliness of the issuance of inspection findings was evaluated during the inspection casework review. For the routine inspection files examined, inspection findings were sent to the licensees within 30 days with the exception of one report which was less than a week late.

The Division granted 39 reciprocity permits in 2004, 39 reciprocity permits in 2005, 28 reciprocity permits in 2006, 33 reciprocity permits in 2007 and 35 reciprocity permits in 2008 to candidate licensees, based upon the criteria in IMC 1220. In 2004, the Division missed the reciprocity inspection goal of 20 percent by 3 inspections. The Division developed an action plan to determine the cause of the missed target and implemented a strategy to achieve the reciprocity goal. The Division met the reciprocity inspection goals in 2005 and 2007. In 2006, the Division focused resources on completion of the initial Increased Control inspections and missed the reciprocity inspection goal by two inspections. Since the reciprocity inspection program was unfunded in 2008, the Division attempted to meet the goal by coordinating reciprocity inspections with routine inspection trips and inspected 9 percent of the candidates.

The review team determined that with respect to Commission Staff Requirements Memorandum (SRM) for COMSECY-05-0028, on Increased Controls, the Division completed the initial set of inspections of these licensees in accordance with the SRM. The Division's prioritization methodology was consistent with the prioritization methodology provided by NRC Headquarters. The Division has 78 licensees that are implementing the Increased Controls. They perform subsequent inspections of the licensee's Increased Controls program during the routine health and safety inspection. At the time of the review, no Increased Control inspections were conducted overdue.

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

3.3 Technical Quality of Inspections

The review team evaluated the inspection reports, enforcement documentation, and inspection field notes and interviewed the responsible inspectors for 21 radioactive materials inspections conducted during the review period. The casework reviewed included inspections conducted by 11 of the Division's inspectors and covered inspections of various license types including: medical broadscope, medical institutions-written directive required, medical high dose rate

afterloader, mobile medical, industrial radiography, research and development broadscope, irradiator, well logging, nuclear pharmacy, decommissioning, manufacturing and distribution, security, and reciprocity. Appendix C lists the inspection files reviewed and includes case-specific comments.

The Division uses IMC 2800 and other NRC inspection procedures for its inspection guidance. After the conclusion of each inspection, inspectors dispatched inspection findings to the respective licensees either in the field or from the office after Branch management review and approval. The Branch Chief's review of each inspection report was appropriately documented and all inspection documentation was entered into ADAMS.

The review team found that inspection reports were thorough, complete, consistent, and of high quality, with sufficient documentation to ensure that a licensee's performance with respect to health, safety, and security was acceptable. Inspection findings led to appropriate and prompt regulatory action, when necessary. Based on the review of casework, the review team concluded that the inspections covered all aspects of the licensees' radiation safety programs commensurate with licensed activities.

During the casework review, the review team found that some documents containing security-related information were not marked with the appropriate designation of "Official Use Only – Security-Related Information". These documents included NRC Form 591 Part 3 inspection forms. The Division identified and marked all documentation that contained security-related information while the review team was on site. In addition, the Division retrained staff to use the 591 Part 3 template with the appropriate markings if security-related information is included on the form.

The review team determined that supervisory accompaniments were conducted annually for all inspectors. The Branch Chiefs made a total of 92 accompaniments during the review period. Inspectors receive verbal feedback at the time of the accompaniments and a portion of the inspectors' annual performance appraisals address their inspection skills, as demonstrated during the accompaniments.

The review team observed that the Division maintains an adequate supply of survey instruments to support their inspection program. Appropriate, calibrated survey instrumentation, such as Geiger-Mueller (GM) meters, scintillation detectors, ion chambers, and micro-R meters, was observed to be available. Instruments are calibrated annually through several commercial calibration services. The Division uses the services of the Oak Ridge Institute for Science and Education for the analysis of wipe samples taken during inspections.

The review team accompanied two of the Division's inspectors during the months of February and March 2009. The inspectors were accompanied during health and safety inspections of mobile and fixed medical programs, an academic broadscope, and a research and development facility. The review team also observed an inspector perform a security inspection. The accompaniments are identified in Appendix C. During the accompaniments, both inspectors 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 and implementation of the Increased Controls requirements. The inspectors conducted interviews with appropriate

personnel, observed licensed operations, conducted confirmatory measurements, and utilized good health physics practices. The inspections were adequate to assess radiological health, safety, and security at the licensed facilities.

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

3.4 Technical Quality of Licensing Actions

The review team examined the casework for 27 materials licensing actions, and held interviews with the license reviewers, the licensing assistant, the Branch Chief and the project manager for the Department of the Air Force Master Materials License. The licensing casework was selected to provide a cross-section of the different types of licensing actions completed by all license reviewers during the review period. The following types of licenses were included in the review: industrial radiography, research and development, medical institution - written directive required, medical private practice, medical high dose rate afterloader, portable gauge, well logging, manufacturing and distribution, special nuclear material, irradiator, master materials license, and possession only. Licensing actions included 4 new applications, 3 renewals (including associated decommissioning financial assurance), 3 terminations, and 17 amendments. A listing of the licensing casework reviewed, with case-specific comments, can be found in Appendix D.

The review team examined the processes used by Branch for receipt and assignment of licensing actions. Licensing actions are logged in by the licensing assistant upon receipt. Branch staff members pre-screen the actions received each week using an Acceptance Review Memo (ARM) to ensure the applicant has provided sufficient information for license reviewers to conduct a review of the request. The ARM is periodically updated to reference changes in regulations and licensing guidance. The pre-screening also checks if the request contains sensitive information to ensure that the documents are appropriately scanned, marked, and entered into ADAMS. Licensing actions are then assigned to a reviewer during a weekly Branch meeting.

The review team found that the licensing actions were thorough, complete, consistent, and of high quality, with health, safety, and security issues properly addressed. License tie-down conditions were stated clearly, backed by information contained in the file, and auditable. Licenses and correspondence are generated using standardized conditions and formats. Licensing staff appropriately used licensing guides, policies, and standard license conditions. Licensees' compliance histories were taken into account when reviewing all renewal applications and major amendments.

The review team examined the list of licensees that were determined to meet the criteria for the Increased Controls. The review team found that the appropriate license conditions were added to those licenses in a timely manner. In reviewing the licensing documents, the review team found that licenses containing sensitive information were properly marked as such; however, the cover letter transmitting the license was not always appropriately marked as required by NRC Management Directive 12.6, "NRC Sensitive Unclassified Information Security Program." The Division identified that discrepancies exist between Management Directive 12.6 and Regulatory

Information Summary (RIS) 2005-031 regarding the marking of transmittal documents. The review team recommends that the Office of Federal and State Materials and Environmental Management Programs (FSME) develop and provide clarification to the NRC Regions on the requirements for marking of inspection and licensing correspondence.

The review team found that the Division reduced authorized possession limits on some licenses listing radionuclides of concern in order to be below the threshold limits requiring implementation of the Increased Controls; however, these lower possession limits were calculated based on activities in curies instead of becquerels. As a result, possession limits for certain isotopes were authorized at quantities that were still above the Increased Controls threshold limits and did not contain the appropriate license condition. The Division identified those licenses that potentially contained such errors and gave refresher training on the *Guidance for Applying the Additional Requirements for Increased Controls*, issued December 14, 2006. While the review team was on site, the Division completed corrections on a number of the affected licenses and developed an action plan to correct the remainder in a timely manner.

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

3.5 Technical Quality of Incident and Allegation Activities

In evaluating the effectiveness of the Division's actions in responding to incidents, the review team examined the Division's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Region IV in the Nuclear Material Events Database (NMED) against those contained in the Division's files, and evaluated the casework for 21 radioactive materials incidents. A listing of the incident casework examined can be found in Appendix E. The review team also evaluated the Division's response to 19 allegations involving radioactive materials.

The review team identified 220 radioactive materials incidents in NMED for Region IV during the review period. The incidents selected for review included the following categories: medical, lost/stolen material, exposure to the embryo/fetus, contamination events, and equipment failure. The review team discussed incident and allegation procedures, file documentation, NMED, and the role of the NRC Headquarters Operations Center with Division staff and managers. The Division is responsible for initial response and followup actions to radioactive materials incidents. The review team determined that the Division's response to incidents was complete and comprehensive. Initial responses were prompt and well coordinated, and the level of effort was commensurate with the health and safety significance in all cases. The Division dispatched inspectors for on-site investigations, as appropriate, and took suitable enforcement and followup actions.

In evaluating the effectiveness of the Division's actions in response to allegations, the review team evaluated the casework for 19 allegations. The review team held interviews with the Regional Allegation Coordinators, Division managers, and Division technical staff regarding the handling of allegations. The Division adheres to NRC Management Directive 8.8, "Management of Allegations" in the handling of allegations. The review team's evaluations of casework,

associated documentation, and interviews of staff and managers revealed that the Division has an effective and efficient program for managing radioactive materials allegations. The casework review indicated that the Division took prompt and appropriate action in response to all concerns raised. All of the allegations reviewed were appropriately closed, and appropriate parties were notified of the actions taken.

Based on the IMPEP evaluation criteria, the review team recommends that Region IV's performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, be found satisfactory.

4.0 NON-COMMON PERFORMANCE INDICATORS

IMPEP identifies one non-common performance indicator to be used in reviewing Regional radioactive materials programs, the Uranium Recovery Program.

4.1 Uranium Recovery Program

This non-common indicator includes five subelements of the uranium recovery regulatory program: 1) Technical Staffing and Training, 2) Status of the Uranium Recovery Inspection Program, 3) Technical Quality of the Uranium Recovery Inspection Program, 4) Technical Quality of Licensing, and 5) Technical Quality of Incidents and Allegation Activities. Region IV does not conduct uranium recovery licensing, this is performed by staff in the Division of Waste Management and Environmental Protection, FSME; therefore, Subelement 4 was not addressed in this review.

4.1.1 Technical Staffing and Training

In reviewing this subelement, the review team considered staffing level, technical qualifications of the staff, staff training, and staff turnover. There are presently two inspectors who perform the uranium recovery inspections. The review team determined that the Division's staffing level for uranium recovery inspections was appropriate based on workload at the time of the review.

The review team determined that staff qualifications and training were adequate. The Region IV uranium recovery inspectors have reactor health physics or radioactive materials safety backgrounds, so the health physics focus of the inspections was strong. Region IV inspectors routinely coordinated inspections with technical staff from FSME for the necessary expertise to review other areas; such as geotechnical engineering, hydrology, and geosciences; for the two operating in situ leach facilities: Power Resources Smith Ranch and Crow Butte. At the conventional mill sites in decommissioning, there was little ongoing activity that warranted joint inspections between Region IV and FSME staff; however, Region IV staff maintained communication with FSME technical and licensing uranium recovery staff for effective inspections at the decommissioning sites.

4.1.2 Status of the Uranium Recovery Inspection Program

The review team focused on several factors in evaluating Region IV's performance for this subelement, including inspection frequency, overdue inspections, timely issuance of inspection findings to licensees, and inspection followup. The review team's evaluation is based on a review of the Division's response to the questionnaire relative to this indicator, the uranium recovery inspection schedule, selected inspection casework files, and interviews with inspection staff and managers.

During the review period, the Division conducted 39 inspections and 5 site visits. Most of the sites are non-operating conventional mills that are in various stages of decommissioning and reclamation. Inspection frequency is established through a Master Inspection Plan developed by the Division in conjunction with the FSME. The inspection schedule is based on guidance in NRC IMC 3641, "In-Situ Leach Facilities Inspection Program," and IMC 2801, "Uranium Mill and 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program." There were three inspections during the review period that were conducted overdue. During Fiscal Years 2003-2007, two inspections, Western Nuclear – Split Rock and Anadarko Petroleum – Bear Creek, were deferred at the request of the FSME. These inspections were subsequently performed during 2008. Another inspection, Hydro Resources, was also deferred because the licensee was issued a source material license, although construction had not started due to adjudication. FSME uranium recovery staff requested inspection deferral until the adjudication is complete.

The review team evaluated the timeliness of the issuance of inspection findings during the inspection file review. The review team determined that all inspection reports that were reviewed were issued within 30 days after completion of the inspection and final closeout with licensee managers and operations staff.

4.1.3 Technical Quality of Uranium Recovery Inspections

In reviewing this subelement, the review team examined inspection reports and other documentation for eight inspections conducted during the review period. The cases selected for review covered various licensees representing a range of uranium recovery licensing activities in different stages of operation. The review team interviewed inspectors and managers to assess the adequacy of their preparation for the inspections, the depth and content of the actual inspections, and the appropriateness of inspection findings. A list of the uranium recovery inspection files that were reviewed is included as Appendix F.

Generally, one Region IV uranium recovery inspector will conduct an inspection with occasional assistance from other inspectors, supervisors, or FSME technical staff. The inspectors coordinate, plan, and prepare for inspections by reviewing relevant manual chapters, inspection procedures, previous inspection reports, licenses, incident reports, notices of violations, and other background information. They will often consult with the uranium recovery licensing staff in FSME before inspections.

The review determined that, during a typical inspection, inspectors observe licensee operations; interview workers, managers, and contractors; review facility records; examine site operating plans and procedures; and make independent measurements during inspections.

During the week of March 16, 2009, a review team member accompanied an inspector at the Power Resources, Inc. facility, as indicated in Appendix F. The inspector was prepared and thorough in her review of the aspects of the licensee's radiation safety program. Although the Division's uranium recovery inspectors primarily focus on health physics and radiation safety issues, they also routinely inspect for environmental monitoring, management, and organizational issues. The inspectors typically observe a broad spectrum of licensee operations.

The review team found that the Region IV uranium recovery inspection reports were well written, provided appropriate depth, and were promptly reviewed by supervisors. They addressed compliance conditions for the licensees, and demonstrated that the inspectors pursued root causes where problems or violations were identified.

The inspection findings generally lead to appropriate and prompt regulatory action. Licensees are given 30 days to reply to the Notice of Violation. After the response, a letter is sent to the licensee indicating if the review of the proposed corrective actions is satisfactory or not.

The review team determined that during the review period, the uranium recovery inspectors had been accompanied by their supervisors at least once a year. The review team found that the supervisors routinely meet with the uranium recovery inspectors after their inspections to review inspection findings and to plan followup strategy.

4.1.4 Technical Quality of Licensing Actions

Since the Division does not perform uranium recovery licensing actions, this subelement was not evaluated during the review.

4.1.5 Technical Quality of Incident and Allegation Activities

To evaluate this subelement, the review team examined the information on the uranium recovery incidents provided by the Division in its response to the questionnaire. The Division received notification of one uranium recovery incident during the review period. The incident was captured in NMED; however, it did not meet the reporting criteria. A followup inspection was performed during which the inspector determined that the license condition requiring reporting of events needed clarification. This was discussed with FSME uranium recovery staff as an item to be resolved during the next license renewal.

4.1.6 Conclusion

Based on the IMPEP evaluation criteria, the review team recommends that Region IV's performance with respect to the indicator, Uranium Recovery Program, be found satisfactory.

5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, the review team found Region IV's performance to be satisfactory for all performance indicators reviewed. Accordingly, the review team recommends that the NRC Region IV radioactive materials program be found adequate to protect public health and safety. Based on the results of the current IMPEP review, the review team

recommends that the next full IMPEP review of the NRC Region IV radioactive materials program take place in approximately 4 years.

Below is the recommendation, as mentioned earlier in the report, for evaluation and implementation, as appropriate, by FSME:

The review team recommends that FSME develop and provide clarification to the NRC Regions on the requirements for marking of inspection and licensing correspondence. (Section 3.4)

LIST OF APPENDIXES

Appendix A	IMPEP Review Team Members
Appendix B	Region III Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews
Appendix F	Uranium Recovery Casework Reviews

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	Area of Responsibility
Kathleen Schneider, FSME	Team Leader Technical Staffing and Training Status of Materials Inspection Program
Michele Beardsley, FSME	Technical Quality of Inspections Inspector Accompaniments
Stephen James, OH	Technical Quality of Licensing Actions
George Parker, Region III	Technical Quality of Incident and Allegation Activities
Dorothy Stoffel, WA	Uranium Recovery Program Inspector Accompaniments

APPENDIX B

REGION IV ORGANIZATION CHARTS

ADAMS ACCESSION NO.: ML091120066

APPENDIX C

INSPECTION CASEWORK REVIEWS

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

File No.: 1

Licensee: Materials Integrity Inc.

Inspection Type: Routine, Unannounced

Inspection Date: 12/10/08

License No.: 50-27722-01

Priority: 1

Inspector: LD

File No.: 2

Licensee: Materials Integrity, Inc.

Inspection Type: Special, Announced

Inspection Date: 9/19/07

License No.: 50-27722-01

Priority: 1

Inspector: LD

Comment:

NRC 591 Part 3 not marked appropriately.

File No.: 3

Licensee: Como Tech Inspection

Inspection Type: Routine, Unannounced

Inspection Date: 2/26/09

License No.: 15-26978-01

Priority: 1

Inspector: AG

Comment:

NRC 591 Part 3 not marked appropriately.

File No.: 4

Licensee: Advanced Isotopes of Idaho

Inspection Type: Routine, Unannounced

Inspection Date: 12/4/08

License No.: 11-29216-01MD

Priority: 2

Inspector: JR

File No.: 5

Licensee: Anvil Corporation

Inspection Type: Routine, Unannounced

Inspection Date: 8/15/07

License No.: 46-23236-03

Priority: 1

Inspector: LD

File No.: 6

Licensee: Edge Solutions

Inspection Type: Special, Announced

Inspection Date: 12/5/07

License No.: 50-29244-01

Priority: 1

Inspector: LD

Comment:

NRC 591 Part 3 not marked appropriately.

File No.: 7

Licensee: Edge Solutions
Inspection Type: Routine, Unannounced
Inspection Date: 12/9/08

License No.: 50-29244-01
Priority: 1
Inspector: LD

File No.: 8

Licensee: Alaska Industrial X-Ray
Inspection Type: Routine, Unannounced
Inspection Date: 8/1/06

License No.: 50-16084-01
Priority: 1
Inspector: RE

File No.: 9

Licensee: Queens Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 3/28/08

License No.: 53-16533-02
Priority: 2
Inspector: RL

Comment:

NRC 591 Part 3 not marked appropriately.

File No.: 10

Licensee: Big State X-Ray Inc.
Inspection Type: Routine, Unannounced
Inspection Date: 12/10/07

License No.: 35-21144-01
Priority: 1
Inspector: RM

Comment:

NRC 591 Part 3 not marked appropriately.

File No.: 11

Licensee: Unitech Services Group
Inspection Type: Routine, Announced
Inspection Date: 4/22/08

License No.: 53-13668-01
Priority: N/A
Inspector: RE

File No.: 12

Licensee: Department of the Air Force
Inspection Type: Routine, Announced
Inspection Date: 10/24/08

License No.: 42-23539-01AF
Priority: N/A
Inspectors: RB, JC

File No.: 13

Licensee: Lovelace Respiratory
Inspection Type: Routine, Unannounced
Inspection Dates: 5/1/07 and 5/6/07

License No.: 30-29237-01
Priority: 5
Inspector: AG

Comment:

Report contained a non-cited violation without an explanation as to why it was non-cited versus cited.

File No.: 14

Licensee: Department of Commerce- NOAA

Inspection Type: Routine, Telephone

Inspection Date: 6/6/06

License No.: 25-11997-01

Priority: 5

Inspector: LG

File No.: 15

Licensee: Department of the Army-Wm. Beaumont Med. Ctr.

Inspection Type: Routine, Unannounced

Inspection Date: 11/13/06

License No.: 42-05255-07

Priority: 2

Inspector: RL

File No.: 16

Licensee: Department of the Army-Tripler Army Med. Ctr.

Inspection Type: Routine, Unannounced

Inspection Date: 10/22/08

License No.: 53-00458-04

Priority: 2

Inspector: AG

File No.: 17

Licensee: SABIA, Inc.

Inspection Type: Reactive, Follow-up

Inspection Date: 2/29/08 and 9/18/08

License No.: 11-27727-01

Priority: 5

Inspectors: JK, AG, LD

File No.: 18

Licensee: Integrated Product Svcs.

Inspection Type: Routine, Announced

Inspection Date: 10/23/06

License No.: 17-27763-01

Priority: 3

Inspector: RL

File No.: 19

Licensee: Integrated Product Svcs.

Inspection Type: Initial Special, Announced

Inspection Date: 9/12/07

License No.: 17-27763-01

Priority: 3

Inspector: RM

File No.: 20

Licensee: Dept. of Army-White Sands Missile Range

Inspection Type: Routine, Unannounced

Inspection Dates: 1/18 to 2/13/06

License No.: 30-02405-10

Priority: 1

Inspector: RL

File No.: 21

Licensee: Riverton Memorial Hospital

Inspection Type: Routine, Announced

Inspection Date: 11/29/07

License No.: 49-21004-01

Priority: 3

Inspector: JT

INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1

Licensee: Lovelace Respiratory

Inspection Type: Routine, Unannounced

Inspection Date: 3/12/09

License No.: 30-29237-01

Priority: 2

Inspector: RM

Accompaniment No.: 2

Licensee: Lovelace Respiratory

Inspection Type: Special, Announced

Inspection Date: 3/12/09

License No.: 30-29237-01

Priority: 2

Inspector: RM

Accompaniment No.: 3

Licensee: Front Range Nuclear Svcs.

Inspection Type: Routine, Unannounced

Inspection Date: 2/10/09

License No.: 49-27531-01

Priority: 3

Inspector: JR

Accompaniment No.: 4

Licensee: University of Wyoming

Inspection Type: Routine, Unannounced

Inspection Date: 2/10/09

License No.: 49-09955-10

Priority: 3

Inspector: JR

APPENDIX D

LICENSE CASEWORK REVIEWS

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

File No.: 1

Licensee: Lovelace Respiratory

Type of Action: Amendment

Date Issued: 11/3/08

License No.: 30-29237-01

Amendment No.: 10

License Reviewer: RT

File No.: 2

Licensee: Guam Memorial Hospital

Type of Action: Renewal

Date Issued: 1/13/06

License No.: 56-18134-01

Amendment No.: 25

License Reviewer: RT

Comment:

Incorrect date cited for license tie-down.

File No.: 3

Licensee: H & H X-Ray

Type of Action: Amendment

Date Issued: 2/22/05

License No.: 17-19236-01

Amendment No.: 25

License Reviewers: RB, AG

File No.: 4

Licensee: Precision Energy

Type of Action: Termination

Date Issued: 2/13/09

License No.: 35-26895-02

Amendment No.: 02

License Reviewer: RT

File No.: 5

Licensee: Southwest X-Ray Corporation

Type of Action: Amendment

Date Issued: 9/14/04

License No.: 49-27434-01

Amendment No.: 08

License Reviewer: JC

File No.: 6

Licensee: The Queen's Medical Center

Type of Action: Amendment

Date Issued: 1/19/07

License No.: 53-16533-02

Amendment No.: 53

License Reviewer: JC

File No.: 7

Licensee: Department of Commerce-NOAA

Type of Action: Amendment

Date Issued: 2/24/09

License No.: 05-11997-01

Amendment No.: 40

License Reviewer: RT

File No.: 8

Licensee: Defense Microelectronics Activity

Type of Action: Renewal

Date Issued: 12/4/07

License No.: 04-29107-01

Amendment No.: 6

License Reviewer: JM

Comment:

Open-ended authorized possession limits used.

File No.: 9

Licensee: Acuren Inspection, Inc

Type of Action: Amendment

Date Issued: 4/1/08

License No.: 42-27593-01

Amendment No.: 31

License Reviewer: RS

File No.: 10

Licensee: Sanford Medical Center

Type of Action: Amendment

Date Issued: 4/16/07

License No.: 40-12378-01

Amendment No.: 68

License Reviewer: JM

Comment:

Possession limits not calculated properly to exempt licensee from certain license conditions.

File No.: 11

Licensee: Sanford Medical Center

Type of Action: Amendment

Date Issued: 11/20/07

License No.: 40-12378-01

Amendment No.: 69

License Reviewer: RT

Comment:

Possession limits not calculated properly to exempt licensee from certain license conditions.

File No.: 12

Licensee: Sanford Medical Center

Type of Action: Amendment

Date Issued: 11/18/08

License No.: 40-12378-01

Amendment No.: 70

License Reviewer: RB

Comment:

Possession limits not calculated properly to exempt licensee from certain license conditions.

File No.: 13

Licensee: Texas Gamma Ray, LLC

Type of Action: New License

Date Issued: 1/6/09

License No.: 42-29303-01

Amendment No.: N/A

License Reviewer: JC

Comment:

Licensee authorized to analyze own leak tests; however, this activity was not requested by licensee.

File No.: 14

Licensee: Carroll College

Type of Action: Termination

Date Issued: 1/17/06

License No.: 25-07093-01

Amendment No.: 12

License Reviewer: RB

File No.: 15

Licensee: National Aeronautics and Space Administration

Type of Action: Amendment

Date Issued: 4/21/06

License No.: 42-09388-01

Amendment No.: 33

License Reviewer: RB

File No.: 16

Licensee: Genencor International

Type of Action: New License

Date Issued: 2/5/04

License No.: 04-27770-01

Amendment No.: N/A

License Reviewer: JM

File No.: 17

Licensee: Genencor International

Type of Action: Termination

Date Issued: 3/10/06

License No.: 04-27770-01

Amendment No.: 01

License Reviewer: JM

File No.: 18

Licensee: Treadwell & Rollo, Inc.

Type of Action: New License

Date Issued: 11/18/05

License No.: 04-29219-01

Amendment No.: N/A

License Reviewer: RB

Comment:

Open-ended authorized possession limits used.

File No.: 19

Licensee: GlaxoSmithKline Biologicals

Type of Action: Decommissioning Amendment

Date Issued: 5/30/07

License No.: 25-19852-01

Amendment No.: 21

License Reviewer: RB

File No.: 20

Licensee: Avera St. Luke's

Type of Action: Amendment

Date Issued: 4/4/07

License No.: 40-18000-01

Amendment No.: 30

License Reviewer: RB

File No.: 21

Licensee: Pocatello Cardiology Associates

Type of Action: Amendment

Date Issued: 12/23/08

License No.: 11-27809-01

Amendment No.: 02

License Reviewer: JC

File No.: 22

Licensee: International Isotopes, Inc.

Type of Action: Amendment

Date Issued: 3/19/08

License No.: 11-27680-01

Amendment No.: 35

License Reviewer: RT

File No.: 23

Licensee: Century Geophysical Corporation

Type of Action: Renewal

Date Issued: 6/10/08

License No.: 35-04017-04

Amendment No.: 30

License Reviewer: JC

Comment:

License issued without certain required license condition based on authorized possession limits.

File No.: 24

Licensee: Souixland Urology Center LLC

Type of Action: New License

Date Issued: 7/15/05

License No.: 40-34223-01

Amendment No.: N/A

License Reviewer: JC

File No.: 25

Licensee: Memorial Hospital of Sweetwater

Type of Action: Amendment

Date Issued: 12/15/08

License No.: 49-17940-01

Amendment No.: 09

License Reviewer: RT

File No.: 26

Licensee: Cancer Center of Hawaii

Type of Action: Amendment

Date Issued: 12/18/06

License No.: 53-27797-01

Amendment No.: 01

License Reviewer: JC

Comment:

Possession limits not calculated properly to exempt licensee from certain license conditions.

File No.: 27

Licensee: Dept. of the Army, Brooke Army Medical Center

Type of Action: Amendment

Date Issued: 1/14/09

License No.: 42-01368-01

Amendment No.: 93

License Reviewer: RB

APPENDIX E

INCIDENT CASEWORK REVIEWS

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

File No.: 1

Licensee: Department of the Army

Date of Incident: 9/25/05

Investigation Date: 10/4/05

License No.: 30-02405-01

Incident Log No.: 050649

Type of Incident: Equipment failure

Type of Investigation: Site

File No.: 2

Licensee: TEAM Industrial Svcs.

Date of Incident: 4/18/06

Investigation Date: 4/19/06

License No.: 42-32219-01

Incident Log No.: 060262

Type of Incident: Equipment failure

Type of Investigation: Licensee report

File No.: 3

Licensee: National Institute of Standards and Technology

Date of Incident: 6/9/08

Investigation Date: 6/12/08

License No.: 05-03166-05

Incident Log No.: 080326

Type of Incident: Contamination

Type of Investigation: Site

File No.: 4

Licensee: SABIA

Date of Incident: 2/29/08

Investigation Date: 2/29/08

License No.: 11-27727-01

Incident Log No.: 080128

Type of Incident: Ruptured source

Type of Investigation: Site

File No.: 5

Licensee: Department of the Air Force

Date of Incident: 6/4/08

Investigation Date: 9/5/08

License No.: 42-23539-01AF

Incident Log No.: 080514

Type of Incident: Overexposure

Type of Investigation: Site

File No.: 6

Licensee: Schlumberger Technology

Date of Incident: 4/5/07

Investigation Date: 4/6/07

License No.: 42-27055-01

Incident Log No.: 070609

Type of Incident: Abandoned source

Type of Investigation: Licensee report

File No.: 7

Licensee: Alaska Industrial X-Ray

Date of Incident: 8/30/06

Investigation Date: 12/15/06

License No.: 50-16084-01

Incident Log No.: 060553

Type of Incident: Lost material

Type of Investigation: Licensee report

File No.: 8
Licensee: FMC Idaho
Date of Incident: 9/7/06
Investigation Date: 9/11/06

License No.: 11-27071-01
Incident Log No.: 060565
Type of Incident: Recovered material
Type of Investigation: Site

File No.: 9
Licensee: National Aeronautics & Space Administration
Date of Incident: 11/13/06
Investigation Date: 11/14/06

License No.: 04-07845-04
Incident Log No.: 060696
Type of Incident: Lost sources
Type of Investigation: Licensee report

File No.: 10
Licensee: General Electric
Date of Incident: 9/1/06
Investigation Date: 9/1/06

License No.: SNM-0960
Incident Log No.: 060663
Type of Incident: Contamination
Type of Investigation: Site

File No.: 11
Licensee: Department of the Air Force
Date of Incident: 9/6/05
Investigation Date: 11/21/06

License No.: 42-23539-01AF
Incident Log No.: 050766
Type of Incident: Lost source
Type of Investigation: Licensee report

File No.: 12
Licensee: TEAM Industrial Svcs.
Date of Incident: 7/22/06
Investigation Date: 7/22/06

License No.: 42-32219-01
Incident Log No.: 060606
Type of Incident: Equipment failure
Type of Investigation: Licensee report

File No.: 13
Licensee: Wal-Mart
Date of Incident: 4/28/08
Investigation Date: 4/28/08

License No.: General licensee
Incident Log No.: 080765
Type of Incident: Equipment failure
Type of Investigation: Licensee report

File No.: 14
Licensee: Department of Commerce-NOAA
Date of Incident: 8/23/08
Investigation Date: 8/23/08

License No.: 05-11997-01
Incident Log No.: 080805
Type of Incident: Leaking source
Type of Investigation: Site

File No.: 15
Licensee: Cardinal Health Radiopharmacy
Date of Incident: 7/22/04
Investigation Date: 7/26/04

License No.: 04-26507-01MD
Incident Log No.: 040874
Type of Incident: Transportation
Type of Investigation: Licensee report

File No.: 16

Licensee: Department of the Air Force

Date of Incident: 10/6/07

Investigation Date: 10/7/07

License No.: 42-23539-01AF

Incident Log No.: 040718

Type of Incident: Lost source

Type of Investigation: Licensee report

File No.: 17

Licensee: Department of the Air Force

Date of Incident: 1/24/05

Investigation Date: 1/24/05

License No.: 42-23539-01AF

Incident Log No.: 050051

Type of Incident: Lost equipment

Type of Investigation: Licensee report

File No.: 18

Licensee: Halliburton Energy Svcs.

Date of Incident: 12/23/07

Investigation Date: 12/29/07

License No.: 42-01068-07

Incident Log No.: 080040

Type of Incident: Abandoned source

Type of Investigation: Licensee report

File No.: 19

Licensee: ACUREN USA

Date of Incident: 4/26/07

Investigation Date: 4/30/07

License No.: 42-32443-01

Incident Log No.: 070260

Type of Incident: Lost source

Type of Investigation: Licensee report

File No.: 20

Licensee: Baker Hughes Oilfield Ops

Date of Incident: 4/5/07

Investigation Date: 4/7/07

License No.: 17-27437-01

Incident Log No.: 070251

Type of Incident: Abandoned source

Type of Investigation: Licensee report

File No.: 21

Licensee: Department of the Interior

Date of Incident: 5/15/06

Investigation Date: 6/23/06

License No.: 05-01399-08

Incident Log No.: 060426

Type of Incident: Contamination

Type of Investigation: Site

APPENDIX F

URANIUM RECOVERY INSPECTION CASEWORK REVIEWS

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

File No.: 1	
Licensee: Power Resources, Inc.	License No.: SUA-1548
Inspection Type: Routine	Priority: N/A
Inspection Dates: 9/23-25/08	Inspectors: LG, DM, ES
File No.: 2	
Licensee: Power Resources, Inc.	License No.: SUA-1548
Inspection Type: Routine	Priority: N/A
Inspection Dates: 3/24-27/08	Inspectors: RE, LG, DM, ES
File No.: 3	
Licensee: Western Nuclear, Inc.	License No.: SUA-56
Inspection Type: Routine	Priority: N/A
Inspection Date: 6/4/08	Inspector: LG
File No.: 4	
Licensee: Crow Butte	License No.: SUA-1534
Inspection Type: Routine	Priority: N/A
Inspection Dates: 9/17-19/07	Inspectors: RE, RL
File No.: 5	
Licensee: United Nuclear Corporation	License No.: SUA-1475
Inspection Type: Routine	Priority: N/A
Inspection Date: 7/24/07	Inspector: RE
File No.: 6	
Licensee: Exxon Mobil Refining and Supply Co.	License No.: SUA-1139
Inspection Type: Routine	Priority: N/A
Inspection Date: 5/1/07	Inspectors: RE, LG
File No.: 7	
Licensee: Umetco Mineral Corporation	License No.: SUA-648
Inspection Type: Routine	Priority: N/A
Inspection Date: 8/31/06	Inspector: RE
File No.: 8	
Licensee: Crow Butte Resources, Inc.	License No.: SUA-1534
Inspection Type: Routine	Priority: NA
Inspection Dates: 8/15-17/06	Inspectors: RE, SC

INSPECTOR ACCOMPANIMENT

The following inspector accompaniment was performed prior to the on-site IMPEP review:

Accompaniment No.: 5

Licensee: Power Resources, Inc.

Inspection Type: Routine, Announced

Inspection Date: 3/16-20/09

License No.: SUA-1548

Priority: NA

Inspector: LG