UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 25, 2014

Ms. Kathryn Perkins
Assistant Commissioner
Division of Regulatory Services
Texas Department of State Health Services
P.O. Box 149347, MC 2835
Austin, TX 79714-9347

Dear Ms. Perkins:

On July 22, 2014, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Texas Agreement State Program. The MRB found the Texas program adequate to protect public health and safety and compatible with the Nuclear Regulatory Commission's (NRC) program.

Section 4.0, page 25 of the enclosed final report contains a summary of the IMPEP team's findings and recommendations. The MRB expressed concerns over performance in the area of Uranium Recovery and the MRB concluded that a satisfactory rating for the indicator was appropriate, provided the Texas Commission on Environmental Quality (Commission) made steadfast commitments in fully developing and implementing the recommendations. The Commission agreed to this course of action. The MRB suggests the Commission carefully review the IMPEP report sections on Uranium Recovery and Low-Level Waste Disposal as it prepares the responses to the recommendations. We request your evaluation and response to the recommendations in the report within 30 days from receipt of this letter. Your response to the recommendations should be submitted to Laura Dudes, Director, Division of Materials Safety and State Agreements. Based on the results of the current IMPEP review, the next full review of the Texas Agreement State Program will take place in approximately 4 years from the current IMPEP, with a periodic meeting tentatively scheduled for February 2016.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Agreement State program. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

/RA/

Roy P. Zimmerman
Acting Deputy Executive Director for
Materials, Waste, Research, State, Tribal and
Compliance Programs
Office of the Executive Director for Operations

Enclosure:
2014 Texas Final IMPEP Report

cc: Richard A. Hyde, TCEQ
Michael Ortiz, OAS Liaison to the MRB
Richard A. Ratliff, TXDSHS
Charles Maguire, TCEQ
Roger Mulder, State Liaison Officer

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 25, 2014

Mr. Richard A. Hyde, P.E.
Executive Director
Texas Commission on
Environmental Quality
P.O. Box 13087, MC-109
Austin, TX 78711-3087

Dear Mr. Hyde:

On July 22, 2014, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Texas Agreement State Program. The MRB found the Texas program adequate to protect public health and safety and compatible with the Nuclear Regulatory Commission's (NRC) program.

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE TEXAS AGREEMENT STATE PROGRAM

February 10-14, 2014

FINAL REPORT

Enclosure

EXECUTIVE SUMMARY

This report presents the results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the Texas Agreement State Program. The review was conducted during the period of February 10 – 14, 2014, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of Washington.

Based on the results of this review, Texas' performance was found satisfactory for all performance indicators reviewed. The review team made three recommendations regarding program performance by the State regarding (1) developing and implementing a strategy to address staffing in the low-level radioactive waste (LLRW) and uranium recovery inspection areas; (2) developing detailed inspection procedures for LLRW inspections to provide feedback to the LLRW program and enhance the inspection program; and (3) developing detailed inspection procedures for uranium recovery inspections to provide feedback to the uranium recovery program and enhance the inspection program.

Accordingly, the review team recommended, and the Management Review Board (MRB) agreed, that the Texas Agreement State Program is adequate to protect public health and safety, and compatible with the NRC's program. The review team recommended, and the MRB agreed, that the next IMPEP review take place in approximately four years.

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1.0 INTRODUCTION

This report presents the results of the review of the Texas Agreement State Program. The review was conducted during the period of February 10 –14, 2014, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of 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 February 27, 2010, to February 14, 2014, were discussed with Texas managers on the last day of the review. Subsequent to the exit meeting, the review team reconvened to finalize the review of the low-level radioactive waste (LLRW) and uranium recovery indicators. The review team's recommendations for these indicators were discussed with the Director, Radioactive Materials Division, and the Director, Critical Infrastructure Division, of the Texas Commission on Environmental Quality on April 14 and May 14, 2014.

A draft of this report was provided to Texas for factual comment on May 21, 2014. The State responded by letters dated June 12, 2014, and June 20, 2014. Copies of the State's responses are included as an Attachment to this report. A Management Review Board (MRB) met on July 22, 2014, to consider the proposed final report. The MRB found the Texas Agreement State Program adequate to protect public health and safety and compatible with the NRC's program.

The Texas Agreement State Program is administered by two State agencies, the Texas Department of State Health Services (the Department) and the Texas Commission on Environmental Quality (the Commission). Organization charts for the Department and the Commission are included as Appendix B.

The Department's portion of the Agreement State program is located in the Division for Regulatory Services. This Division has two sections: the Health Care Quality Section, which includes all licensing functions and the Environmental and Consumer Safety Section, which includes the inspection, investigation and quality assurance programs.

The Commission's portion of the Agreement State program is located in two offices. The Office of Waste, Radioactive Materials Division, performs licensing and permitting functions. The Commission's inspection program is located in the Office of Compliance and Enforcement, Critical Infrastructure Division.

At the time of the review, the Department regulated approximately 1,578 specific licenses authorizing the possession and use of radioactive materials. The Commission has regulatory authority for LLRW disposal activities and uranium recovery facilities in Texas. The review focused on the radioactive materials program as it is carried out under the Section 274b (of the Atomic Energy Act of 1954, as amended) Agreement between NRC and the State of Texas.

In preparation for the review, a questionnaire addressing the common and applicable non-common performance indicators was sent to the Department and the Commission on December 5, 2013. The Department provided its response to the questionnaire on January 14, 2014, and the Commission provided its response to the questionnaire on February 4, 2014. Copies of the Department's and the Commission's questionnaire responses can be found in NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML14070A117 for the Department's response and Accession Number ML14070A055 for the Commission's response.

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

There were no recommendations made during the previous review.

Results of the current review of the common performance indicators are presented in Section 2.0. Section 3.0 details the results of the review of the applicable non-common performance indicators, and Section 4.0 summarizes the review team's findings.

2.0 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.

2.1 Technical Staffing and Training

The Department's staffing and training for the radioactive materials program will be covered in this section of the report. The Commission's staffing and training for the LLRW and uranium recovery programs will be covered in Sections 3.3.1 and 3.4.1 of this report, respectively.

Considerations central to the evaluation of this indicator include the Department'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 Department's questionnaire response relative to this indicator, interviewed Department managers and staff, reviewed job descriptions and training records, and considered workload backlogs.

The Department is organized into functional groups rather than program groups. The Radiation Safety Licensing Branch Manager is designated as the radiation control program director and provides a coordinating role among the functional groups. Licensing functions,

including sealed source and device reviews, are performed in the Austin office by the Radioactive Materials Group of the Radiation Safety Licensing Branch, which is located in the Health Care Quality Section. The inspection and incident response functions are performed by the Radiation Branch of the Inspection Unit, which is located in the Environmental and Consumer Safety Section. Most of the inspection staff is based in 11 regional offices, which are located throughout the State. The Radiation Group in the Policy/Standards/Quality Assurance Unit coordinates rule development, prepares enforcement cases for referral to the Enforcement Review Committee, and plays a major role in quality assurance for the inspection program.

At the time of the review, there were 42 individuals, totaling approximately 38 full-time equivalents (FTE), with various degrees of involvement in the radioactive materials program. One position in the Radiation Safety Licensing Branch was vacant at the time of this review. During the review period, a total of 18 individuals left the radioactive materials program, including four managers. The staff departures occurred intermittently and the vacancies were filled with well qualified technical staff holding science degrees. Eighteen staff members were added during the review period, including four managers. The review team determined that staffing levels were adequate for the Agreement State program.

The Department has a documented training plan for technical staff that is consistent with the requirements in the NRC/Organization of Agreement States Training Working Group Report and NRC's Inspection Manual Chapter (IMC) 1248, "Formal Qualification Program for Federal and State Materials and Environmental management Programs". New licensing and inspection staff members are assigned increasingly complex duties as they progress through the qualification process. Qualified staff mentor new staff and keep their qualification current through professional education training. The licensing and inspection program managers maintain the training and qualification records for technical staff. In addition, one technical staff member in the Policy/Standards/Quality Assurance Unit is responsible for coordinating training requests and acceptances at NRC qualification courses. The review team concluded that the Department's training program is adequate to carry out its regulatory duties and noted that Texas management supports the radiation control program's training program.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Texas' performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

2.2 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 Department's questionnaire response relative to this indicator, data gathered from the Department's database, examination of completed inspection casework, and interviews with management and staff.

The review team verified that the Department's inspection frequencies for all types of radioactive material licenses are similar or more frequent as similar license types listed in IMC 2800, "Materials Inspection Program." For the license categories established by the

Department, 56 of 115 are assigned inspection priority codes that prescribe a more frequent inspection schedule than those established in IMC 2800 for similar license types. The Department conducted 1,403 Priority 1, 2, and 3 inspections during the review period, based on the inspection frequencies established in IMC 2800. Seven of these inspections were conducted overdue by more than 25 percent of the inspection frequency prescribed in IMC 2800. In addition, the Department performed 204 initial inspections during the review period, 7 of which were conducted overdue. As required by IMC 2800, initial inspections should be conducted within 12 months of license issuance. The initial inspections were conducted late due to inspector vacancies or the licensee had not initiated use of radioactive material. According to Department staff, initial inspections are attempted within the first 12 months after the license is issued. The Department considers the initial inspection to be completed only after the licensee has initiated licensed activities which may exceed 12 months after the license has been issued. Overall, the review team calculated that the Department performed 2.9 percent of its inspections overdue during the review period.

The review team evaluated the Department's timeliness in providing inspection findings to licensees. A sampling of 32 inspection reports indicated that none of the inspection findings were communicated to the licensees beyond the Department's goal of 30 days after the inspection.

During the review period, the Department issued 133 reciprocity permits, of which 41 were candidate licensees based upon the criteria in IMC 1220. The review team determined that the Department exceeded the NRC's criteria of inspecting 20 percent of candidate licensees operating under reciprocity in each of the four years covered by the review period.

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

2.3 Technical Quality of Inspections

The review team evaluated the inspection reports, enforcement documentation, inspection field notes, and interviewed inspectors for 25 radioactive materials inspections conducted during the review period. The casework reviewed included inspections conducted by 16 Department inspectors and covered inspections of various license types: medical broad scope, medical institutions-therapy (high dose rate remote afterloader, unsealed radioiodine therapy, permanent or temporary implant brachytherapy), medical diagnostic, portable gauges, industrial radiography, self-shielded irradiators, nuclear pharmacy, manufacturing and distribution, well logging, and Increased Security Controls for Large Quantities of Radioactive Materials (Increased Controls). Appendix C lists the inspection casework files reviewed, with a case-specific comment, as well as the results of the inspector accompaniments.

Based on the evaluation of casework, the review team noted that inspections covered all aspects of the licensee's radiation safety programs. 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 and safety was acceptable. The documentation supported violations, recommendations made to licensees, unresolved safety issues, the effectiveness of corrective actions taken to resolve previous violations and

discussions held with licensees during exit interviews. The inspection procedures utilized by the Department are consistent with the inspection guidance outlined in IMC 2800. An inspection report is completed by the inspector which is then reviewed and signed by the Quality Assurance reviewer. Supervisory accompaniments were conducted annually for all inspectors.

The review team determined that the inspection findings were appropriate and prompt regulatory actions were taken, as necessary. Inspection findings were clearly stated and documented in the reports and sent to the licensees with the appropriate letter detailing the results of the inspection. The Department issues to the licensee either a letter indicating a clear inspection or a Notice of Violation (NOV), in letter format, which details the results of the inspection. When the Department issues an NOV, the licensee is required to provide a written corrective action plan, based on the violations cited, within 30 days. All findings are reviewed by the Quality Assurance reviewer.

The review team noted that the Department has 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, were observed to be available. Instruments are calibrated at least annually, or as needed, by the Department with National Institute of Standards and Technology traceable sources. The Department uses a database to track each instrument, its current location, and next calibration date.

Accompaniments of eight Department inspectors were conducted by two IMPEP team members between December 16, 2013, and January 29, 2014. The inspectors were accompanied during health and safety inspections of industrial radiography, medical therapy (high dose rate remote afterloader, gamma knife, unsealed radioiodine therapy/permanent implant brachytherapy), well logging, and medical diagnostic licenses. The accompaniments are identified in Appendix C. During the accompaniments, the 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. 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 and safety and security at the licensed facilities.

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

2.4 Technical Quality of Licensing Actions

The review team examined completed licensing casework, pending complex license renewal applications that were over 1 year old, and interviewed license reviewers for 27 specific licensing actions and one registrant licensing action. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequacy of facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of license conditions, and overall technical quality. The casework was also reviewed for timeliness, use of

appropriate deficiency letters and cover letters, reference to appropriate regulations, supporting documentation, consideration of enforcement history, pre-licensing visits, peer/supervisory review, and proper signatures.

The licensing casework was selected to provide a representative sample of licensing actions completed during the review period and pending complex renewal actions. Licensing actions selected for evaluation included five new licenses, ten renewals (two complete and eight pending), four termination actions, six amendments, and three exemption requests. Files reviewed included a cross-section of license types: broadscope, medical diagnostic and therapy including high dose rate remote afterloader and unsealed radioiodine therapy, accelerator and commercial distribution, industrial radiography, research and development, academic, nuclear pharmacy, gauges, source manufacturer, panoramic and self-shielded irradiators, tracer study service provider, well-logging, storage only, and radioactive waste broker. The casework sample represented work from nine fully-qualified license reviewers. A list of the licensing casework evaluated with a case-specific comment is provided in Appendix D.

Overall, 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 and were supported by information contained in the file. Deficiency letters clearly stated regulatory positions, were used at the proper time, and identified substantive deficiencies in the licensees' documents. Terminated licensing actions were well documented, showing appropriate transfer and survey records. License reviewers use the Radioactive Material Licensing Group regulatory guides and procedures, policies, checklists, and standard license conditions specific to the type of licensing actions to ensure consistency in licenses.

All nine license reviewers have full signature authority for signing deficiency letters and follow-up letters. Three of the nine reviewers were also Program Coordinators. The Program Coordinators and/or Radioactive Material Licensing Group Manager perform a technical and supervisory review on all licensing actions. The Program Coordinators also sign the licenses before issuance to the licensee. In addition, the Radioactive Materials Licensing Group Manager was appointed to this position in April 2012. Prior to this time, he was a Program Coordinator and the review team looked at some of his licensing casework as part of the review. There are two additional personnel in the Radioactive Materials Licensing Group who are training to become fully qualified reviewers. Licenses are issued for a 10-year period under a timely renewal system. As of January 2014, the State had 1,578 specific licenses and 45 waste shippers and transporters.

All licensing actions received by the Radioactive Materials Licensing Group are assigned a log number in the computer tracking system. The licensing action is then provided to one of the three Program Coordinators (medical/academic, industrial, or advanced technology) who assign the action to a license reviewer in their group. The license reviewer is responsible for reviews, deficiency letters, coordination and finalizing the licensing action. Deficiencies are typically communicated during a telephone call with the licensee and if there is no response, a formal deficiency letter is sent to the licensee. When a licensing action is complete, the respective program coordinator reviews the action for quality assurance and signs the licensing action.

Based on the casework evaluated, the review team concluded that the licensing actions were of high quality and consistent with the Radioactive Materials Licensing Group licensing procedures, the State's regulations, and good health physics practices. The review team attributed the consistent use of templates and quality assurance reviews to the overall quality noted in the casework reviews.

The license reviewers perform pre-licensing checks of all new applicants. The Radioactive Material Licensing Group's pre-licensing review methods incorporate the essential elements of the NRC's revised pre-licensing guidance to verify that the applicant will use requested radioactive materials as intended. The Radioactive Materials Licensing Group requests a pre-licensing site visit from the Radioactive Materials Inspection Group. All new unknown entity applicants receive a pre-licensing site visit which includes an evaluation of the applicant's radiation safety and security programs prior to receipt of the initial license. The results of the visit are provided to the Radioactive Materials Licensing Group.

The review team examined the Radioactive Materials Licensing Group's licensing practices regarding the Increased Controls and Fingerprinting Orders. The review team noted that the State uses legally binding license conditions that meet the criteria for implementing the Increased Controls Orders, including fingerprinting, as appropriate. The review team analyzed the Radioactive Materials Licensing Group's methodology for identifying those licenses and found the rationale was thorough and accurate. The review team confirmed that license reviewers evaluated new license applications and license amendments using the same criteria. The Radioactive Materials Licensing Group requires full implementation of the Increased Controls prior to issuance of a new license or license amendment that meets the established criteria.

The review team examined the Radioactive Materials Licensing Group's implementation of its Sensitive Information Policy for the control of sensitive information. This policy addresses the identification, marking, control, handling, preparation, storage, and transmission of documents that contain sensitive information related to the Increased Controls. The review team noted that the Radioactive Materials Licensing Group controls access to all of its licensing and inspection files via key-pad entry.

The review team examined the list of pending license renewal actions that were over one year old. Renewals do not have a deadline or metric associated with their completion and therefore do not take priority over new applications or license amendments. Renewals that are in-house over 1 year old are all complex actions. The oldest action dates back to 2006 and the second oldest was from 2009. There were thirteen actions from 2010 and 2011, thirty-three actions from 2012, and seven actions from January 2013. There were 68 license renewals over a year old as of January 2013. In the last year, the Radioactive Materials Licensing Group's Manager and Program Coordinators have prioritized and assigned these actions. License reviewers were able to initiate a review and in many cases, deficiency letters have been sent. In the interview with the Radioactive Materials Licensing Group's Manager, he indicated that the combined effect of the changes implemented to address this backlog would reduce the backlog by approximately ten per month and anticipates that by June 30, 2014, the only renewals over one year old will be those where there has been difficulty obtaining satisfactory responses to deficiency letters. At the time of the MRB meeting, the Department reported that there were 47 license renewals in backlog. The Department also reported that the Radioactive Materials

Licensing Group has implemented a new metric for completing deficiency letters within 90 days of receipt of a renewal action.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Texas' performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory.

2.5 Technical Quality of Incident and Allegation Activities

In evaluating the effectiveness of the Department's actions in responding to incidents and allegations, the review team examined the Department's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Texas in the Nuclear Material Events Database (NMED) against those contained in the Department's files, and evaluated the casework for 23 radioactive materials incidents. A list of the incident casework examined may be found in Appendix E. The review team also evaluated the Department's response to 11 allegations involving radioactive materials, including 5 allegations referred to the State by the NRC during the review period.

The review team examined the Department's implementation of its incident and allegation processes, including written procedures for handling allegations and incident response, file documentation, and notification of incidents to the NRC Headquarters Operations Center and NMED. The incident investigation program staff determines the appropriate level of initial response to an incident or allegation. If an immediate response is warranted the incident investigation program manager is notified to make the decision about the appropriate level of response.

The review team identified 262 radioactive material incidents in NMED for Texas during the review period of which 216 required reporting to the NRC. Four non-reportable incidents in NMED for Texas were reviewed for reportability and found to be correctly categorized as non-reportable by the Department. The review team selected 23 radioactive material incidents for evaluation. These incidents included the following types of events: lost/stolen radioactive material, potential overexposure, medical events, damaged equipment, equipment failure, and leaking sources. The Department's responses to the incidents were found to be complete and comprehensive. Initial responses were prompt and well-coordinated, and the level of effort was commensurate with the potential health and safety significance of the event. Inspectors were dispatched for onsite investigations when appropriate. Enforcement and/or other regulatory actions were taken as appropriate. The Department reported events to the NRC in a prompt manner. The actions taken in response to incidents were documented and filed, and the data were submitted to the NRC's contractor responsible for maintaining NMED for inclusion in the database.

In evaluating the effectiveness of the Department's response to allegations, the review team evaluated the casework for 11 allegations, including five that NRC referred to the State during the review period. The review team concluded that the Department took prompt and appropriate actions in response to concerns raised. The review team noted that the Department documented the investigations of concerns and retained all necessary documentation to appropriately close the allegations. The Department notified the concerned individuals of the conclusion of their investigations. The review team determined that Texas has open records

laws that the Department has adopted when addressing complaints. Due to these laws, the Department cannot protect the identity of concerned individuals if there was an open records request about the particular complaint. Concerned individuals are informed of these laws. If the concerned individual does not provide identifying information, the concerns are kept anonymous and resolved without providing a written response about the State's investigation to the concerned individual. The team determined that in cases where the concerned individual's contact information is available, the Department provides a written response about the Department's investigation and resolution of the concerns.

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

3.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State programs: (1) Compatibility Requirements, (2) Sealed Source and Device Evaluation Program, (3) Low-Level Radioactive Waste Disposal Program, and (4) Uranium Recovery Program. All four non-common performance indicators applied to this review.

3.1 Compatibility Requirements

Texas became an Agreement State in 1963. In assessing Texas's compatibility requirements, the review team examined the Department's and the Commission's responses to the questionnaire relative to this indicator, reviewed the State Regulation Status (SRS) Data Sheets, that the Office of Federal and State Materials and Environmental Management Programs (FSME) maintains, for the Department and the Commission, and conducted interviews with managers responsible for this program area.

3.1.1 Legislation

Both the Department and the Commission are granted legal authority through the Texas Radiation Control Act, Chapter 401 of the Texas Health and Safety Code. Chapter 401 outlines that the Department is the Texas Radiation Control Agency. It further outlines the jurisdictional authorities of the two agencies. For simplicity's sake, the Department has jurisdiction over activities related to radiation and radioactive materials except for those activities that are under the jurisdiction of the Commission. The Commission has jurisdiction to license and regulate the disposal of radioactive materials, the recovery and processing of source material, the processing of tailings or waste produced by or resulting from the extraction or concentration of uranium or thorium from ore (11e.(2) byproduct material as defined in the Atomic Energy Act, as amended), the commercial processing or storage of radioactive waste, and sites for the disposal of low-level radioactive waste and byproduct material. The Commission is also affected by the Texas Low-level Radioactive Waste Disposal Compact, Chapter 403 of the Texas Health and Safety Code. Each agency is indirectly affected by many other Texas rules and legislation.

The Department and the Commission developed and implemented a Memorandum of Understanding (MOU) in 1996. The MOU specified the respective responsibilities of the two

agencies and stated that the Department and Commission agreed to work together to ensure that complete regulation is maintained for sources, uses, and users of radiation. The MOU also addressed certain operational functions of the two agencies, such as emergency preparedness, instrument calibration, and mutual assistance. Senate Bill 347 requires that the §289.101 Memorandum of Understanding Between the Department of State Health Services and the Texas Commission on Environmental Quality Regarding Radiation Control Functions be updated. This rulemaking is underway and anticipated to be completed in August 2014.

All Texas agencies are subject to sunset review by the Texas Sunset Commission. The next sunset review for the Department is anticipated to be within the year. The sunset review for the Commission has been completed. Additionally, State agencies are required to perform a review of each rule four years from the last effective date of the rule.

3.1.2 Program Elements Required for Compatibility

The review team examined the procedures used in the Department's and the Commission's regulatory processes. Both the Department and the Commission receive recommendations on proposed rulemaking from the Texas Radiation Advisory Board. The Department also coordinates its rulemaking through the State Health Services Counsel. During the review period the Department completed a standardization of its policies and procedures for rulemaking for all programs within the Department. Some rulemakings involve public meetings and both agencies' rulemaking processes provide an opportunity for public/stakeholder comment on proposed regulations. The Department and the Commission provide any proposed or final rules for a compatibility review by the NRC.

The Department's rulemaking process often proposes and adopts rules in regulatory packages that are different from the NRC's Review Summary Sheets for Regulation Amendments. This results in individual portions of the NRC rule changes being promulgated and adopted by the Department at different times. In addition, the Department often combines portions of the NRC rule changes into one rulemaking package.

During the review period, the Department submitted five regulation packages to the NRC for review and comment. These packages addressed one proposed regulation amendment and four revisions to final regulations addressing all previous NRC comments as a result of the NRC's compatibility reviews. Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally-binding requirements no later than three years after they become effective.

The following four packages were submitted overdue by the Department during the review period:

- "Medical Use of Byproduct Material," 10 CFR Parts 20, 32, and 35 amendment (67 FR 20249), that was due for Agreement State adoption on October, 24, 2005.

- "Compatibility with IAEA Transportation Safety Standards and Other Transportation Safety Amendments," 10 CFR Part 71 amendment (69 FR 3697), that was due for Agreement State adoption on October 1, 2007.

- "Minor Amendments," 10 CFR Parts 20, 30, 32, 35, 40 and 70 amendment (71 FR 15005), that was due for Agreement State adoption on March 27, 2009.

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

The Department also provided a package containing equivalent regulations to 10 CFR Part 34 and 39 not associated to a specific NRC rule change. The NRC reviewed the package and provided comments on January 11, 2012.

The Department has initiated a rulemaking that it anticipates will be completed by November 2014 that will address these outstanding comments. The Department will also address the NRC rule changes that are due in 2014 and 2015. At the time of this review, the Department did not have any overdue amendments.

During the review period, the Commission sent seven regulation packages to the NRC for review and comment. These addressed two proposed regulation amendments and three revisions to final regulations addressing all previous NRC comments as a result of the NRC's compatibility reviews.

The following four packages were submitted overdue by the Commission during the reporting period:

- "Increased Controls for Risk-Significant Radioactive Sources" (NRC Order EA-05-090) (70 FR 72128), that was due for Agreement State adoption on December 1, 2005.

- "National Source Tracking System," 10 CFR Part 20 amendments (71 FR 65685, 72 FR 59162), that was due for Agreement State adoption on January 31, 2009.

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

- "Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent Parts 19, and 20 amendments (72 FR 68043), that was due for Agreement State adoption on February 15, 2011.

At the time of this review, the following two amendments were overdue for adoption by the Commission:

- "Radiological Criteria for License Termination of Uranium Recovery Facilities," 10 CFR Part 40 (64 FR 17506), that was due for Agreement State adoption on June 11, 2002.[1]

[1] Until final amendments are adopted , the Commission applies license termination criteria on a case by case basis The NRC has reviewed the two license terminations issued by the State, and determined that the lack of adoption of this amendment has not affected their ability to terminate these licenses.

- "Minor Amendments," 10 CFR Parts 20, 30, 32, 35, 40 and 70 amendments (71 FR 15005), that was due for Agreement State adoption on March 27, 2009.

The Commission also provided a package containing equivalent regulations to 10 CFR Part 40 not associated to a specific NRC rule change. The NRC reviewed the package and provided comments on October 3, 2013.

The Commission intends to open both the uranium recovery and low level waste disposal regulations for changes in 2014. The Commission will address the one overdue NRC rule change and consider the NRC rule changes that are coming due in 2014 and 2015.

A complete list of upcoming regulation amendments can be found on the NRC website at the following address: http://nrc-stp.ornl.gov/rss_regamendents.html.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Texas' performance with regard to the indicator, Compatibility Requirements, be found satisfactory.

3.2 Sealed Source and Device Evaluation Program

In reviewing this indicator, the review team used three subelements to evaluate the Department's performance regarding the Sealed Source and Device (SS&D) Evaluation Program. These subelements were (1) Technical Staffing and Training, (2) Technical Quality of the Product Evaluation Program, and (3) Evaluation of Defects and Incidents Regarding SS&Ds.

In assessing the State's SS&D evaluation activities, the review team examined the information provided in response to the IMPEP questionnaire and evaluated the SS&D registry sheets and supporting documents processed during the review period. The team also interviewed the staff currently conducting SS&D evaluations.

3.2.1. Technical Staffing and Training

SS&D evaluation responsibilities are distributed amongst the license review staff. The staff is divided between industrial SS&D evaluations (Industrial Unit) and the medical SS&D evaluations (Medical Unit).

The Department currently has five reviewers who are qualified to perform safety evaluations of SS&D applications. All have science degrees and have attended the NRC's SS&D Workshop. The review team interviewed staff members involved in the reviews and determined that they were familiar with the procedures used in the evaluation of a source/device and had access to applicable reference documents. Subsequent to the onsite review, the Department sent two technical staff members, who are undergoing qualification, to the NRC SS&D Workshop in March 2014. The SS&D staffing level and education qualifications for the current staff were evaluated and were found adequate.

3.2.2 Technical Quality of the Product Evaluation Program

The review team evaluated 16 of the 56 SS&D evaluation amendments, inactivations, and new registrations, which included custom evaluations issued by the Department during the review period, representing the work of nine SS&D reviewers (five active reviewers and four former reviewers). The cases selected for review were representative of the Department's licensees and SS&D reviewers throughout the reporting period. The Department stated that they manage 200 active SS&D registrations. A list of SS&D casework examined, with case-specific comments, can be found in Appendix F.

In assessing the Department's SS&D evaluation activities, the review team examined information contained in the Department's response to the IMPEP questionnaire for this indicator and interviewed program staff and managers. The review team confirmed that the Department follows the recommended guidance from the NRC's SS&D workshop, NUREG-1556 Series guidance, applicable and pertinent American National Standards Institute standards, ISO-9001, and Texas Regulatory Guides. The review team verified that these documents were available and used appropriately in performing SS&D reviews.

During the review of casework, the review team determined that the Department did not ensure in three cases (of all SSD registrants in Texas) that the foreign manufacturer/distributor had a radioactive materials license, per Texas regulations, or an import/export license. The licensees possessed specific licenses to distribute in Texas; however, there was no reference in the SS&D files regarding the import/export conditions in the license or the conditions that allowed the licensee to manufacture and distribute from abroad. This issue was discussed with the Department, and the Department determined that this was an oversight. The Department committed to implementing measures to correct these files. The review team concluded that the issue was not a public health and safety concern and was not generic in nature. Subsequent to the onsite review, the Department informed the review team that all three licensees had an NRC exemption to import/export the devices.

The Department performed evaluations based on sound conservative assumptions to ensure public health and safety was adequately protected. Deficiency letters clearly stated regulatory positions and all health and safety issues were addressed. The review team determined that product evaluations were thorough, complete, consistent, and adequately addressed the integrity of the products during use and in the event of accidents.

3.2.3 Evaluation of Defects and Incidents Regarding SS&Ds

There were no incidents related to SS&D defects involving sources or devices registered by the State of Texas during the review period. Utilizing NMED, the review team determined that there were no incidents involving SS&D registered products reported during the review period. Incident procedures are in place should an SS&D related incident occur. Department managers are aware of the need to look at such incidents as potentially generic in nature with possible wide-ranging effects.

The review team did not identify any allegations received by the Department related to defects or failures of SS&D products registered in Texas during the review period.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Texas' performance with respect to the indicator, Sealed Source and Device Evaluation Program, be found satisfactory.

3.3 Low-Level Radioactive Waste Disposal Program

In reviewing this indicator, the review team used five subelements to evaluate Texas' performance regarding the LLRW disposal program. These subelements were (1) Technical Staffing and Training, (2) Status of LLRW Disposal Inspection, (3) Technical Quality of Inspections, (4) Technical Quality of Licensing Actions, and (5) Technical Quality of Incident and Allegation Activities.

The regulatory responsibility for the LLRW disposal program resides with the Commission. The Radioactive Materials Licensing Section, located within the Radioactive Materials Division of the Office of Waste, is responsible for the licensing of LLRW disposal and processing activities. The inspection responsibility for LLRW disposal activities is in the Office of Compliance & Enforcement, Critical Infrastructure Division, Homeland Security Section, Radioactive Materials Compliance Team (Compliance Team.) The final pre-operational inspections of the Waste Control Specialists, LLC (WCS) LLRW disposal facility, located in Andrews, Texas, occurred on April 25, 2012. The facility received its first waste disposal shipment on April 27, 2012. Since the 2010 IMPEP review, the Commission has issued 23 amendments to the WCS LLRW disposal facility license.

3.3.1 Technical Staffing and Training

The Radioactive Materials Licensing Section currently has seven full-time and/or part-time staff members with a staffing effort of 5 FTE being used for the LLRW disposal program. The FTE total includes support by the Uranium Section. Staff supporting the LLRW program includes the Division Director, Radioactive Materials Licensing Manager, health physicists, engineers, geologists, and an administrative assistant. The Compliance Team has two full-time onsite LLRW inspectors and two main office inspectors that are shared with the uranium recovery program for a total of 2.4 FTE dedicated to the LLRW inspection program. In addition, approximately 1.1 FTE is assigned to the management oversight of the Compliance Team for the LLRW inspection and compliance activities. During the review period, six staff joined the Radioactive Materials Licensing Section and two inspectors joined the Compliance Team. The LLRW program also had seven staff leave the program. At the time of the review, the Radioactive Materials Licensing Section had two vacancies (one health physicist and one engineer position). The Compliance Team did not have any vacancies at the time of the review.

During the initial licensing and construction reviews of the LLRW disposal site, staff from the Uranium Section was temporarily assigned to the Radioactive Materials Licensing Section to support this higher priority work. In addition, contractors were also utilized for technical support during the review period. Contractors provided assistance in the areas of socioeconomics, ecology, and civil engineering. No contractors are being used at this time.

The review team discussed with the Commission the current workload of the Compliance Team inspectors who perform inspections at the LLRW disposal site, the waste processing facility, and the uranium recovery facilities. Although fully staffed according to the staffing plan, since

operations began at the LLRW disposal site, the inspection workload has challenged the staff to perform timely and comprehensive inspections. The review team is concerned that any losses in staff or increases in workload could severely impact the State's performance in the LLRW and/or uranium recovery inspection functions. The review team recommends that the Commission develop and implement a strategy to address staffing in the LLRW and uranium recovery inspection programs in order to enhance the effectiveness and efficiency of the Program. Additional information on this issue is provided in Section 3.3.2, Status of LLRW Inspection Program, and Section 3.4.2, Status of Uranium Recovery Inspection Program.

The review team examined the training records of the technical staff and found them up to date and complete. The review team determined that the current staff has the right balance of technical expertise and is adequate to maintain the quality and performance of the LLRW program. Through interviews with the technical staff and program managers, combined with an evaluation of training and experience, the review team concluded that the Commission staff is qualified to carry out regulatory duties for licensing and inspection of the LLRW site.

3.3.2 Status of Low-Level Radioactive Waste Disposal Inspection Program

The review team focused on three factors while reviewing this indicator. These include the inspection frequency, overdue inspections or any deviations from the schedule, and timely dispatch of inspection findings to the licensee. The review team's evaluation was based on the Commission's questionnaire response relative to this indicator, examination of inspection casework, and interviews with Commission management and staff.

Prior to receipt of waste shipments, the Commission performed pre-operational inspections at the LLRW disposal site. The site received its first waste shipment on April 27, 2012. The Commission performed an inspection of licensee activities during the first waste shipment and considers this inspection to be the initial inspection of the LLRW disposal site. Based on discussions with Commission managers and staff, the review team determined that this inspection was limited to a review of waste receipt and disposal activities, was not documented as a routine inspection, and did not include an inspection of other licensee activities that would be reviewed during a routine health and safety inspection, such as the licensee's radiation protection and environmental compliance programs. Therefore, the review team did not consider the April 2012 inspection to be an initial inspection of the LLRW disposal site and concluded that an initial inspection of the LLRW disposal site was not performed within 12 months after operations began. In addition, the review team determined that, as of the date of the onsite review, no overall health and safety inspection for the LLRW disposal site license had been conducted since operations commenced. However, resident inspectors provide a daily presence to ensure the protection of public health and safety. The Compliance Team conducted routine inspections of the radioactive waste processing license in 2010, 2011, and 2013. The waste processing license was not inspected in 2012.

Commission inspectors perform inspection close out meetings with the licensee management to discuss findings and concerns. Letters to licensees are only issued if cited violations are identified. The review team noted issuance of written inspection reports varied from less than one month to six months and are sent to the licensing section to be placed in the licensing file.

3.3.3 Technical Quality of Inspections

The review team assessed the quality of LLRW disposal program inspections by evaluating inspector performance during the accompaniments and reviewing inspection field notes, completed reports, inspection procedures and the staff's follow-up to previous inspection findings, as well as regulatory actions taken, annual supervisory accompaniments, and available instrumentation.

The Compliance Team maintains two onsite resident inspectors at the WCS LLRW disposal site that perform inspections of the incoming waste shipments and disposal operations and two inspectors at the main office that perform the overall health and safety inspections of the radioactive materials license and radiation safety program at the LLRW site and adjacent waste processing facility. The Radioactive Material Licensing Section oversees the review of financial assurance, engineering reports, and environmental monitoring reports for the LLRW disposal site. The environmental staff visits the facility annually to review the environmental monitoring program. The engineering staff does not perform onsite engineering inspections. The resident inspectors provide information, including photos of certain aspects of construction or other related engineering activities based on their observations, to the engineering staff in the main office.

On January 29–30, 2014, two review team members accompanied two onsite resident inspectors at the LLRW disposal site, as indicated in Appendix C. Since no shipments arrived at the LLRW site during the accompaniments, the onsite resident inspectors performed a simulated inspection. The inspectors were well prepared and thorough during the limited accompaniment. The inspectors demonstrated appropriate performance-based inspection techniques and knowledge of the regulations. The review team found the inspections were adequate to assess the safety and radiological hazards at the LLRW disposal site during waste receipt and disposal operations.

Based on an evaluation of six inspection files for waste shipments to the WCS LLRW disposal site, the review team determined that these inspection reports were thorough, complete, consistent, and had sufficient documentation to ensure that licensee's waste receipt and disposal practices were acceptable with respect to health, safety and security. The review team noted there were no documented inspection reports for the overall LLRW disposal site license. Therefore, the review team was unable to determine the technical quality of the overall LLRW site inspections. The review team discussed with the Commission staff the importance of having an inspection report completed annually for each overall inspection of the LLRW license in order to ensure all aspects of a licensee's LLRW disposal program are inspected and open items are addressed or followed up on subsequent inspections, and providing feedback to the licensing staff on potential amendments to the LLRW license.

Four inspection reports for the waste processor license were reviewed. The review team noted that the 2013 inspection of the waste processing facility was documented using a pre-drafted report format that did not clearly identify the scope of the inspection and was being finalized during this onsite review.

The review team noted that the Commission has a basic inspection guideline and template report forms for the onsite resident inspections and the overall LLRW inspections. The Commission has not yet developed comprehensive inspection procedures to support the overall LLRW inspection program. The overall inspection report template is a general, pre-drafted, semi-completed inspection report that does not clearly identify the scope of the inspection or document all the appropriate health and safety issues. The review team recommends that the Compliance Team, in coordination with the Radioactive Materials Section, develop detailed inspection procedures for LLRW inspections to provide feedback to the LLRW program and enhance the inspection program.

Based on a review of inspection casework and discussions with inspection staff, the review team determined that inspectors either followed up on previous inspection findings during the subsequent inspection or dispositioned the findings as escalated enforcement actions. The review team noted that completion of inspection reports varied from less than one month to over six months, with supervisor review occurring in a timely fashion after report completion. Commission staff had adequate numbers and varieties of calibrated instruments to perform inspections.

In accordance with IMC 2800, increased controls inspections are required to be performed at the same frequency/priority as the routine health and safety inspection. The review team noted that a routine increased controls inspection of the radioactive waste processor license occurred in January 2010; however, no subsequent routine increased controls inspections have been conducted of either the waste processing or disposal site license. The onsite resident inspectors oversee all waste receipts and disposal operations and ensure the increased controls plan is implemented when required; however, this inspection is limited to waste disposal operations and does not include review of other aspects of the licensee's increased controls program (e.g., trustworthiness and reliability determinations). Additionally the inspection is not documented. The review team discussed with the Commission staff the need to perform routine increased controls inspections at the same inspection frequency/priority as the routine LLRW health and safety site inspection. Subsequent to the onsite review, the Commission informed the review team that the Commission conducted a routine increased control inspection at the LLRW facility in May 2014.

Supervisor accompaniments were conducted annually for all inspectors, with the exception of one inspector who received only one supervisor accompaniment during the review period. The review team discussed with the Commission the need for a supervisory accompaniment of all LLRW inspectors during an inspection of the LLRW facility.

3.3.4 Technical Quality of Licensing Actions

The team reviewed a selection of licensing actions that were completed during the review period, including financial assurance reviews, and engineering and environmental monitoring amendments. A listing of the licensing casework reviewed, with a case-specific comment, can be found in Appendix D.

Since the last IMPEP review the Radioactive Materials Licensing Section issued 23 amendments to the LLRW license, including an amendment on July 24, 2013, that merged the WCS waste processing license with the LLRW disposal license. The Commission hired

technical consultants to address certain complex technical issues when needed, and generated technical summaries of all licensing actions that include details regarding the review and decision process. The license conditions, including the tie-down conditions, were stated clearly, supported by information contained in the file, and were enforceable. The Radioactive Materials Licensing Section used independent analyses and actively solicited public comments during the licensing amendment process through public hearings. The review team determined that Texas' licensing process was thorough, complete, consistent, and of acceptable technical quality. The review team found that health and safety issues were properly addressed as part of the licensing process.

The review team evaluated a sample of the performance assessment models and associated documents for licensing and license amendment actions. Based on a review of licensing documents, the review team determined that the Commission's licensing staff asked appropriate technical questions on risk-significant topics. The licensing staff documented their acceptance or rejection of the responses and communicated the results to the licensee. The review team determined that Texas' licensing process was thorough, complete, consistent, and of acceptable technical quality. The review team found that health and safety issues were properly addressed as part of the licensing process.

The review team examined the financial surety proposed for the LLRW facility. Per license condition, discrete financial surety amounts for several categories (e.g., decommissioning, closure, and post-closure) are stated. The review team determined that Texas adequately addressed the financial surety component of the license.

3.3.5 Technical Quality of Incident and Allegation Activities

The review team found that the Commission had procedures in place for handling incidents and allegations. The procedures for handling incidents include information on what constitutes an incident, appropriate documentation of the incident, reference to NRC abnormal occurrence criteria, and incident tracking. The procedures for handling allegations include information on protecting the identity of the alleger, documentation of the allegation, and allegation tracking.

During the review period, the State reported no events to the NRC and addressed two allegations involving LLRW disposal program activities. One of the allegations was referred by the NRC and resolved with NRC support, and the second allegation was submitted directly to the Commission. The review team determined that the Commission took prompt and appropriate action for both allegations. The review team noted that all documentation related to the investigation of the allegations was complete and appropriately maintained in a separate file.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Texas' performance with respect to the indicator, Low-Level Radioactive Waste Disposal Program, be found satisfactory.

3.4 Uranium Recovery Program

In reviewing this indicator, the review team used five subelements to evaluate the State's performance regarding the uranium recovery program. These subelements were (1) Technical Staffing and Training, (2) Status of Uranium Recovery Inspection Program, (3) Technical Quality

of Inspections, (4) Technical Quality of Licensing Actions, and (5) Technical Quality of Incident and Allegation Activities.

The Texas uranium recovery program has been implemented by the Commission since 2007 when the program was transferred from DSHS's authority to the Commission. The licensing and permitting program for uranium recovery is divided between two sections in the Radioactive Materials Division, the Uranium Section and the Underground Injection Control (UIC) Permits Section.

The Uranium Section has jurisdiction for the licensing of the above ground processes at licensed sites, including the review of the design and construction of all infrastructure and fluid transmission lines, operation, record keeping, maintenance, decommissioning (except ground water restoration), decontamination, and surface reclamation. The Uranium Section issues a radioactive materials license for uranium recovery in-situ recovery (ISR) or conventional mill sites. The Uranium Section also is responsible for ground water protection for conventional mill sites.

The Texas uranium recovery program implements its ground water protection program responsibilities for ISR facilities through the UIC permit program under the Commission's equivalent regulations to Appendix A of 10 CFR Part 40. The UIC Permits Section implements its ground water protection program, restoration and liquid 11e.(2) byproduct waste disposal program, through permitting of all Class III uranium recovery wells, Class I waste disposal wells and associated surface impoundments at a uranium recovery ISR facility under the U.S. Environmental Protection Agency (EPA) UIC program, for which the State has primacy. The Class I disposal well permits also include all earthen impoundments and/or tanks defined as Pre-Injection Units (PIUs) used to store fluid 11e.(2) byproduct material before injection. Each uranium recovery ISR site has a radioactive materials license, a base UIC permit, one or more production area permits and one or more Class I disposal well permits which include the PIUs.

The inspection and enforcement of both the radioactive materials licenses and the UIC permits are done through the Office of Compliance and Enforcement, Critical Infrastructure Division, Homeland Security Section, Radioactive Materials Compliance Team. The inspectors in this section perform separate radioactive material license inspections and UIC permit inspections. The inspection of the Class I wells and pre-injection units (earthen impoundments or tanks) have been performed by the UIC regional offices since 2013.

At the time of this IMPEP review, the Texas uranium recovery program consisted of eleven active radioactive material licenses and one revoked license. Three of the licenses are for conventional mills currently under decommissioning. One license is for disposal of 11e.(2) byproduct material from others. The uranium recovery program has seven in-situ recovery licenses: two licenses in "standby" status; one license in active production; one license for resin processing only, and three licenses are approved but not in operation. One ISR license received NRC approval and has been terminated by the State. One site with a revoked license has not completed decommissioning and the financial surety for the site is in litigation.

3.4.1 Technical Staffing and Training

In reviewing this subelement, the review team considered staffing level, technical qualifications of the staff, staff training, and staff turnover.

The Uranium Section staffing level currently consists of five technical staff and one full time manager. There are no vacant positions. The Uranium Section staff has expertise in various technical disciplines including health physics, geology, hydrology, and engineering. A civil engineer from the Radioactive Material Licensing Section is occasionally utilized for licensing actions. Expertise in socioeconomics and ecological assessment is provided by contractors as needed. All staff but one has a professional registration and/or an advanced degree. Uranium Section staff receive yearly training through web-based courses, private or NRC courses, attendance at professional meetings and memberships in professional societies or working groups. Staffing levels have dropped throughout the IMPEP review period from eleven to six. Several staff members have been reassigned to the Radioactive Materials Section to support the high priority work on the LLRW disposal site. Staff indicated that they had deferred licensing actions because they were assigned higher priority work. The Division management indicated that an engineer will be reassigned to the Uranium Section when the engineering vacancy in the Radioactive Materials Section is filled.

The UIC Permits Section staffing level is currently at nine staff and one full time manager. The section manager is new since the last IMPEP review. Four staff left the program during the IMPEP review period and five new employees were hired. This represents an increase of one position since the last IMPEP review. There are currently two vacant positions, one engineering position and one administrative position. Interviews for these positions were being conducted at the time of this review. The technical staff has various degrees of involvement in the uranium recovery program. Most staff members are associated with Class III permitting and one staff member does Class I permitting full time. The UIC Permits Section staff has expertise in various technical disciplines including geology, hydrology, and engineering. Interviews with staff indicate all possess professional licenses. The UIC staff receives yearly training through web-based courses, private or NRC courses, attendance at professional meetings and memberships in professional societies or working groups.

The Homeland Security Section staffing level for uranium recovery is currently at one full-time manager and two uranium recovery inspectors. These inspectors also perform the inspections at the LLRW disposal site. Approximately 0.70 FTE is assigned to uranium recovery inspections, which is shared between the two inspectors. In addition, about 0.45 FTE is assigned to the management oversight of the uranium recovery inspection and compliance activities. Staffing levels have not changed since the last IMPEP review. There are no vacant positions. The staff conducts separate inspections for the UIC permits and radioactive materials licenses at uranium recovery facilities. One inspector is fully trained to perform UIC permits inspections. The second inspector is being trained to perform UIC inspections and has conducted limited UIC permit inspections. Both inspectors conduct the radioactive materials license inspections.

Three ISR licenses not yet constructed may go into operation in the future, which may place additional strain on the uranium recovery inspectors. The Commission currently does not plan to hire or train a new inspector. The review team is concerned that any losses in staff or increases in workload could severely impact the State's performance in the uranium recovery

inspection and/or LLRW inspection functions. As discussed previously in Section 3.3.1, the review team recommends that the Commission develop and implement a strategy to address staffing in the LLRW and uranium recovery inspection programs in order to enhance the effectiveness and efficiency of the Program.

3.4.2 Status of Uranium Recovery Inspection Program

In reviewing this subelement, the review team evaluated the inspection frequency for uranium recovery licensees and the timeliness of inspection finding communications to the licensees. The review team's evaluation is based on Texas' 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 Commission maintained 12 active licenses: three conventional mills in decommissioning, two in-situ recovery licenses in decommissioning, one active but non-production in-situ recovery license, two active in-situ recovery licenses, one 11e.(2) commercial disposal facility, and three new in-situ recovery facilities which have not begun operations. Uranium recovery licensees are inspected separately for radiation safety and the UIC program which ensures ground water compliance.

During the review period, the inspection staff missed 14 of 20 UIC permit inspections and ten of 44 routine annual radioactive material license inspections. During discussions between the review team, Commission managers and uranium recovery inspectors, the Commission indicated that they had deferred inspections due to the higher than anticipated workload required in preparation for the start of operations at the LLRW disposal site in 2012.

Based on information provided by the Commission, the review team determined that there were no currently overdue radiation safety inspections in the Uranium Mills program.

The Commission's procedure requires that inspection findings are communicated to a licensee during the exit meeting at the end of the inspection. A written report is generated for each inspection and provided to the licensee only upon request. The review team noted that inspection reports were not reviewed by management within 30 days of the inspection, as specified in Sections 1.6 and 1.7 of the Commission's Radioactive Materials Compliance Investigation Guidance.

3.4.3 Technical Quality of Inspections

In reviewing this subelement, the review team examined inspection reports for 14 inspections conducted by the Commission during the review period and accompanied inspectors on one inspection at a licensed facility. The cases selected for review represented 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, guidance and/or protocols for inspection procedures, the depth and content of the actual inspections, and the appropriateness of inspection findings. A listing of the inspection casework reviewed can be found in Appendix C.

The inspector accompaniments and casework reviews confirmed that Commission radiation safety inspections were thorough, included operational and record reviews, and violations were communicated by the inspector to the licensee during exit interviews. The inspectors focused on interviews with licensee personnel, performed confirmatory radiation surveys, and viewed operations in progress. The review team noted that power failure procedures, environmental monitoring results, and ground water reports are not reviewed as part of the inspection program. The Commission has implemented the semi-annual environmental monitoring reports by license condition. The reports are submitted to the Uranium Section for review.

Inspections for radiation safety compliance were performed in accordance with IMC 2801, "Uranium Mill and 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program," and IMC 2641, "In-Situ Leach Facilities Inspection Program" requirements, with one exception. IMC 2801 and IMC 2641 state that a pre-operational inspection should be conducted prior to startup of new facilities; however, the Commission did not perform pre-operational inspections prior to startup of new facilities and has no equivalent guidance for inspection frequency or inspection report content of the ground water compliance program to ensure health and safety are protected.

The licensing and permitting staff, with the geohydrology and engineering technical expertise, does not routinely accompany the inspection staff who have health physics expertise during routine inspections. A multidisciplinary inspection team would be able to conduct a more comprehensive technical inspection for the uranium recovery facilities. The feedback of compliance information to the licensing staff would be enhanced and the inspectability of license conditions enhanced with licensing staff participation in certain inspections. Both the UIC Permits Section and the Uranium Section staff use a form titled "Compliance History Report" to provide compliance and enforcement history to permitting and licensing staff. During interviews with staff, the review team determined that the staff was conducting inspections that address appropriate health and safety issues. However, the review team determined that the documented information was incomplete based on a discussion with the compliance staff and the licensing/permitting staff. Information on the conditions at the sites identified during inspections is not timely communicated to the licensing/permitting staff. The review team recommends that the Compliance Team, in coordination with the UIC Permits Section and the Uranium Section, develop detailed inspection procedures for uranium recovery inspections to provide feedback to the uranium recovery program and enhance the inspection program. The review team found that the inspection reports provided appropriate depth of coverage, addressed license conditions, and demonstrated that the inspector pursued corrective actions for items of noncompliance that were identified. Inspection files contained photographs documenting both general facility features and items of interest or concerns.

3.4.4 Technical Quality of Licensing Actions

For this subelement, the review team examined files and associated documentation related to UIC permitting and radioactive material licensing of in-situ recovery and conventional mill facilities, license amendment files, financial assurance instruments and other licensing documentation. Appendix D lists the licensing files reviewed.

For the conventional mills, the team reviewed six licensing actions which were completed during the review period and consisted of license renewal, annual financial assurance updates,

compliance monitoring, and post-decommissioning monitoring for ground water compliance. For in-situ recovery facilities, the team reviewed eight licensing actions which were completed during the review period consisting of license amendments, license renewal, annual financial updates and project area authorizations, conventional mill site visits, and ground water and health physics monitoring reviews.

The IMPEP review team conducted interviews with the UIC Permits Section team and Uranium Section radioactive material licensing teams to inquire about the application submittal, review and license/permit issuance process. Both sections used checklists to meet and verify licensing and permitting action milestones had been met. The UIC Permits Sections used the "Administrative and Technical Evaluation Checklist, Class III UIC Production Area Authorization (PAA) Application" to ensure administrative and technical completeness. The UIC permit staff then used the "Class I and Class III UIC Permit Application Process Schedule" to track timely execution of all actions. These actions included notices of deficiency (NOD), responses to NODs, issuance of the draft permit, public notice and comment periods, notice of public hearing opportunity and finalization of the permit. All actions have set time periods for execution.

The Uranium Section radioactive material license team used the "Uranium License Review Sheet" to review and track execution of all licensing actions. These actions included reviews for administrative and technical completeness, assignment of review team members, process engineering review, hydrology review, structural review concerns, multiple notices of deficiency (NOD), reviews of responses to NODs, preparation of the draft license, public notice and comment periods, notice of public hearing opportunity and finalization of the license. The review sheet is a comprehensive document which contains substantial technical comments by all license reviewers and dates of execution for all actions.

According to the Commission, all three conventional uranium mill licenses are in renewal. Uranium Section license staff stated that none of the conventional milling licenses will be renewed since all are in decommissioning. Four of the seven active ISR uranium milling licenses are in renewal. Uranium Section licensing staff indicated that several staff were reassigned for other priorities (WCS LLRW disposal site license application) which has delayed the completion of these licenses renewals. Staff expects to reduce the ISR license renewal backlog in the future given the expected workload.

The review team discussed with the Commission the status of one license which was revoked in 2003 for nonpayment of fees. The ISR wellfields at both sites have been fully restored but the surface contamination has not been cleaned up. The licensee abandoned the site in 2006 with limited funds remained in the financial trust. The trust is now under litigation and no funds are currently available for maintaining or decommissioning the site. A gamma survey was performed on both sites in 2012 which confirmed the sites are contaminated. Neither site is properly posted or secured according to discussions with Commission staff and observations of the site made by NRC staff. Subsequent to the onsite review, the Commission noted that signs had been posted during the last Commission review of the site; however, theft of the radiological signage has been an ongoing problem at this location. The Commission has issued a letter to the owner and the licensee informing them they are still responsible for decommissioning and securing the sites. The owner and licensee sued the Commission over the letter. The IMPEP review team discussed with the Commission staff their responsibility to protect the public health and safety at the site. Commission management is working on a path forward for the site.

All licensing and permitting actions related to amendments, site monitoring visits at conventional uranium mills, financial assurance and radioactive effluent and ground water monitoring reviews were found to be of high quality and consistent. As noted in Section 3.3.4, the feedback loop on existing ISR site infrastructure, inspections and operating issues used to inform future licensing and permitting actions needs to be enhanced.

3.4.5 Technical Quality of Incident and Allegation Activities

For this subelement, the review team interviewed the inspection personnel involved with incident and allegation activities and reviewed procedures. There were no incidents or allegations during the IMPEP review period for the team to evaluate. The Commission has incident response procedures that adequately address the actions required.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Texas' performance with respect to the indicator, Uranium Recovery Program, be found satisfactory.

4.0 SUMMARY

As noted in Sections 2.0 and 3.0 above, Texas' performance was found satisfactory for all performance indicators reviewed. The review team made three recommendations regarding program performance by the State.

Accordingly, the review team recommended, and the MRB agreed, that the Texas Agreement State Program be found adequate to protect public health and safety and compatible with the NRC's program. Based on the results of the current IMPEP review, the review team recommended, and the MRB agreed, that the next full IMPEP review take place in approximately four years.

Below are the review team's recommendations, as mentioned in the report, for evaluation and implementation by the State:

RECOMMENDATIONS:

1. The review team recommends that the Commission develop and implement a strategy to address staffing in the LLRW and uranium recovery inspection programs in order to enhance the effectiveness and efficiency of the Program. (Sections 3.3.1 and 3.4.1)

2. The review team recommends that the Compliance Team, in coordination with the Radioactive Materials Section, develop detailed inspection procedures for LLRW inspections to provide feedback to the LLRW program and enhance the inspection program. (Section 3.3.3)

3. The review team recommends that the Compliance Team, in coordination with the UIC Permits Section and the Uranium Section, develop detailed inspection procedures for uranium recovery inspections to provide feedback to the uranium recovery program and enhance the inspection program. (Section 3.4.3)

LIST OF APPENDICES

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APPENDIX A

IMPEP REVIEW TEAM MEMBERS

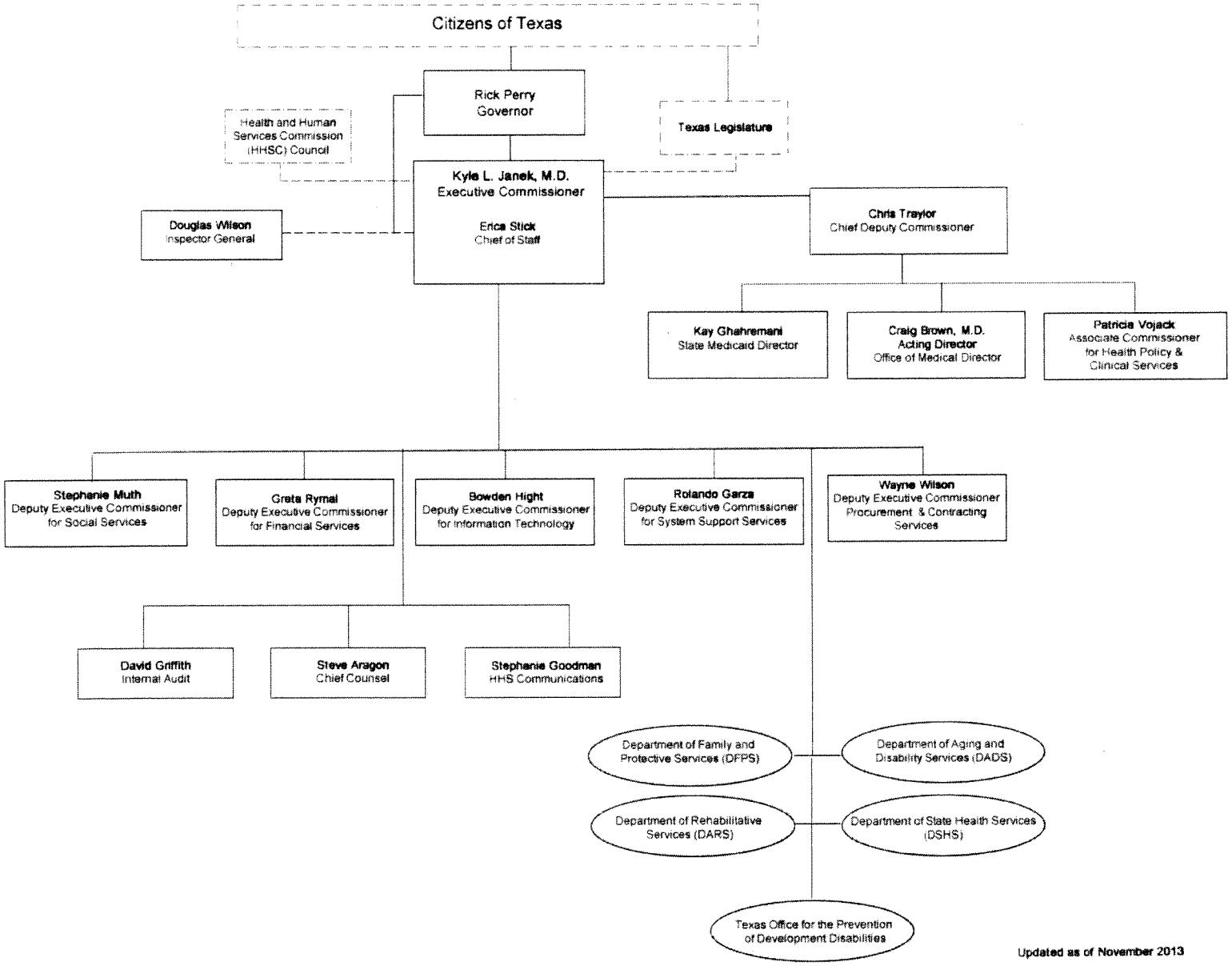
Name	**Area of Responsibility**
Donna Janda, Region I	Team Leader Technical Staffing and Training Inspector Accompaniments
Robert Hays, Region III	Status of Materials Inspection Program Technical Quality of Inspections Inspector Accompaniments
Kathy Modes, Region I	Technical Quality of Licensing Actions
Binesh Tharakan, Region IV	Technical Quality of Incident and Allegation Activities
Stephen Poy, FSME	Compatibility Requirements Sealed Source and Device Evaluation Program
Dennis Sollenberger, FSME	Technical Staffing and Training Compatibility Requirements
David Esh, FSME	Low-Level Radioactive Waste Disposal Program Inspector Accompaniment
Kristen Schwab, State of Washington	Low-Level Radioactive Waste Disposal Program Inspector Accompaniment
Linda Gersey, Region IV	Uranium Recovery Program Inspector Accompaniment
Elise Striz, FSME	Uranium Recovery Program Inspector Accompaniment

APPENDIX B

TEXAS ORGANIZATION CHARTS
ADAMS ACCESSION NO.:

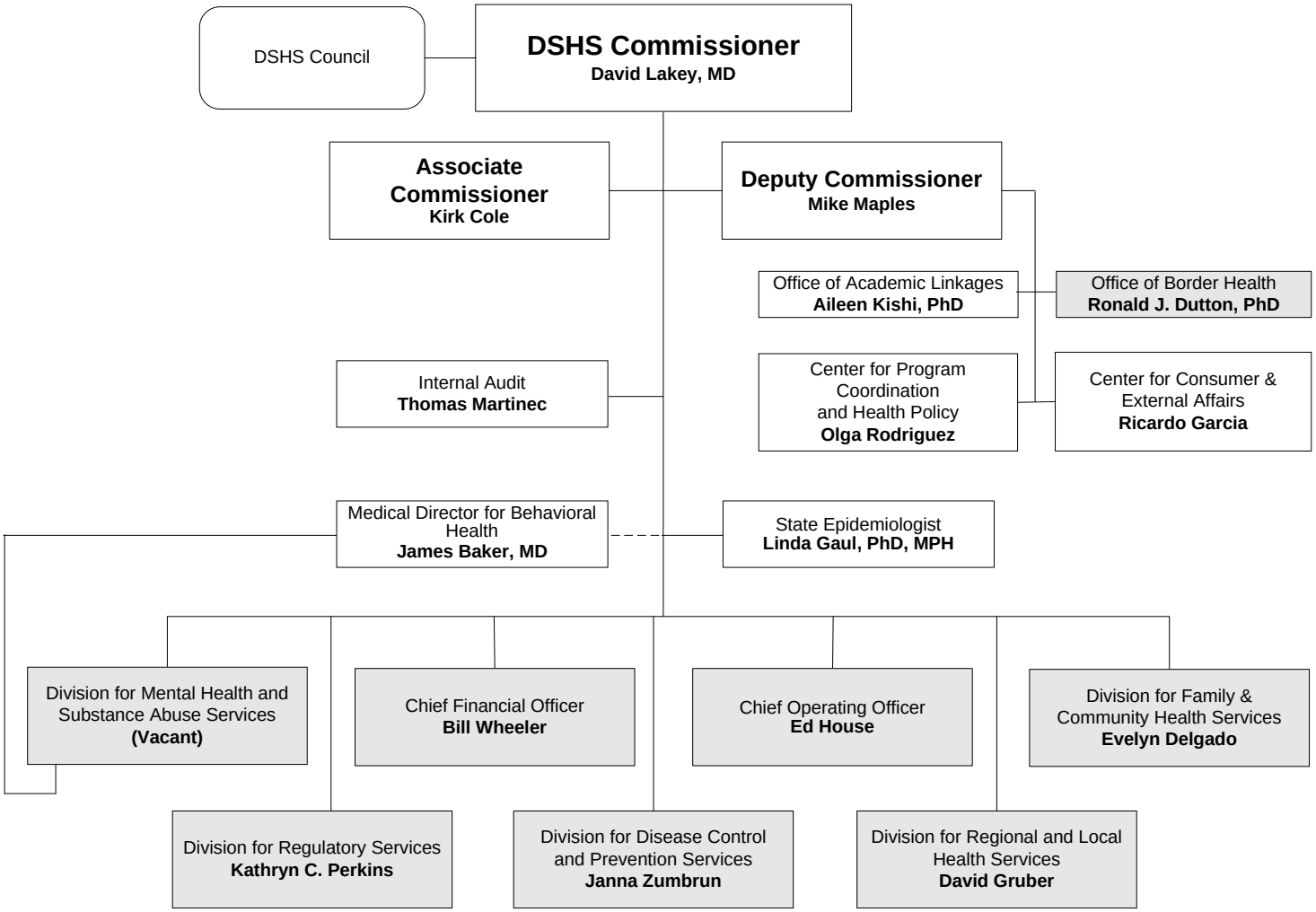
ML14070A073 – Texas DSHS
ML14070A065 – Texas CEQ

HEALTH AND HUMAN SERVICES COMMISSION

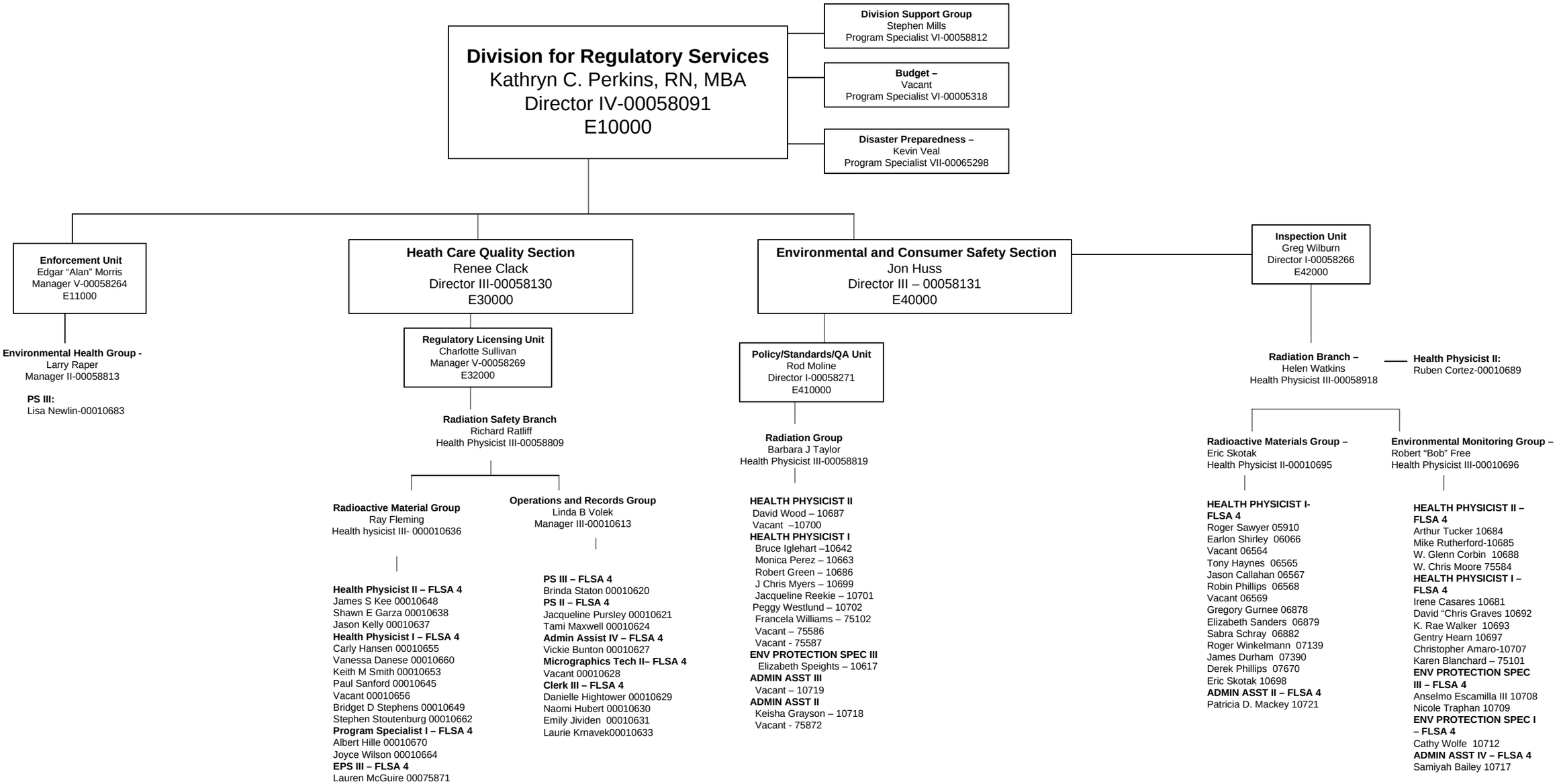


Updated as of November 2013

Department of State Health Services
Organizational Chart
December 1, 2013



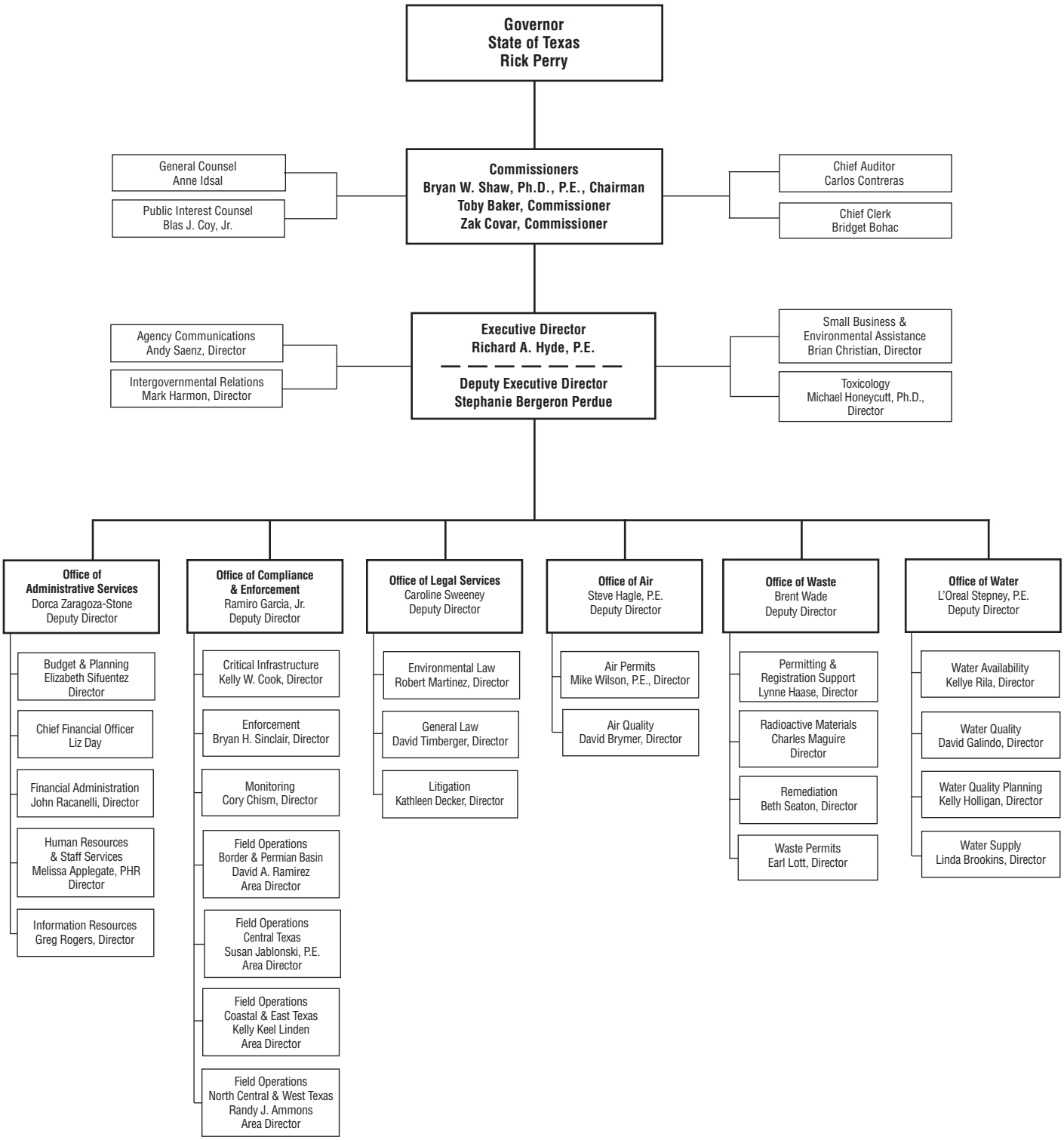
Division for Regulatory Services



Effective 1/2014

TCEQ ORGANIZATION

January 16, 2014



APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

Texas Department of State Health Services

File No.: 1
Licensee: Rio Grande Nuclear Pharmacy — License No.: L06362
Inspection Type: Initial, Announced — Priority: 2
Inspection Date: 2/16/11 — Inspector: GG

File No.: 2
Licensee: Sightline West Houston IMRT, LLC — License No.: L06299
Inspection Type: Routine, Announced — Priority: 2
Inspection Date: 4/19/11 — Inspector: HA

File No.: 3
Licensee: Non Destructive Inspection Corp. — License No.: L02712
Inspection Type: Routine, Special, Announced — Priority: 1
Inspection Date: 9/20/12 — Inspector: RH

File No.: 4
Licensee: Baylor University Medical Center — License No.: L01290
Inspection Type: Routine, Special, Announced — Priority: 2
Inspection Date: 11/15/11 — Inspector: SS

File No.: 5
Licensee: Gammatron — License No.: L02148
Inspection Type: Routine, Announced — Priority: 1
Inspection Date: 6/10/13 — Inspector: RP

File No.: 6
Licensee: Team Industrial Services, Inc. — License No.: L00087
Inspection Type: Routine, Unannounced — Priority: 1
Inspection Date: 8/29/13 — Inspector(s): AT, ES

File No.: 7
Licensee: Allied Wireline Services — License No.: L06374
Inspection Type: Special, Unannounced — Priority: 3
Inspection Date: 1/17/13 — Inspector: RW

File No.: 8
Licensee: Medicine and Radiation Oncology, PA — License No.: L06503
Inspection Type: Initial, Unannounced — Priority: 2
Inspection Date: 6/18/13 — Inspector(s): RW, JD

File No.: 9
Licensee: IsoRx Texas, LTD License No.: L05284
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 6/6/11 Inspector: ES

File No.: 10
Licensee: Blood Systems, Inc. License No.: L05841
Inspection Type: Special, Announced Priority: 3
Inspection Date: 7/20/11 Inspector(s): GG, ES

File No.: 11
Licensee: Doctor's Hospital at Renaissance, LTD License No.: L05761
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 4/18/12 Inspector: JC

File No.: 12
Licensee: University Medical Center License No.: L04719
Inspection Type: Routine, Special, Announced Priority: 2
Inspection Date: 4/13/09 Inspector: ES

File No.: 13
Licensee: United Regional Health Care System License No.: L00350
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 10/28/19 Inspector: ES

File No.: 14
Licensee: Troxler Electronic Laboratory License No.: L01296
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 1/5/12 Inspector: SS

File No.: 15
Licensee: Golden Plains Community Hospital License No.: L04369
Inspection Type: Routine, Announced Priority: 5
Inspection Date: 2/23/12 Inspector: ES

File No.: 16
Licensee: Christus Hospital – St. Elizabeth License No.: L00269
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 3/2/2011 Inspector: VD

File No.: 17
Licensee: Critical Response Inspection Service, LLC License No.: L06497
Inspection Type: Initial, Special, Announced Priority: 1
Inspection Date: 6/20/13 Inspector: DP

File No.: 18
Licensee: Qal -Tek Associates, LLC License No.: L05965
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 10/28/11 Inspector: LC

File No.: 19
Licensee: Houston Thyroid and Endocrine Specialists License No.: L06464
Inspection Type: Initial, Announced Priority: 3
Inspection Date: 2/21/13 Inspector: RP

File No.: 20
Licensee: Texas Department of Transportation License No.: L00197
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 8/22/13 Inspector(s): RW, RS

File No.: 21
Licensee: Weatherford International, LLC License No.: L04286
Inspection Type: Routine, Special, Announced Priority: 3
Inspection Date: 4/11/11 Inspector: SF

File No.: 22
Licensee: Southern Technical Services, Inc. License No.: L05270
Inspection Type: Routine, Announced Priority: 1
Inspection Date: 10/12/11 Inspector: RH

File No.: 23
Licensee: TechCorr USA, LLC License No.: L05972
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 9/18/13 Inspector(s): GG, AT

File No.: 24
Licensee: FTI Industries, Inc. License No.: L02810
Inspection Type: Routine, Special, Announced Priority: 1
Inspection Date: 10/3/12 Inspector: SS

File No.: 25
Licensee: Hendrick Medical Center License No.: L02433
Inspection Type: Routine, Special, Announced Priority: 3
Inspection Date: 7/19/11 Inspector: ES

Texas Commission on Environmental Quality

File No.: 26
Licensee: Waste Controls Specialist License No.: R04971
Inspection Type: Routine, Announced Priority: 1-2
Inspection Date: 3/4/10 Inspectors: SS, MA, JG, MI

Comment: Report issued five months after inspection.

File No.: 27
Licensee: Waste Controls Specialist License No.: R04971
Inspection Type: Routine, Announced Priority: 1-2
Inspection Date: 8/23-24/11 Inspectors: SS, JG, DJ

Comment: Report issued two months after inspection.

File No.: 28
Licensee: Waste Controls Specialist License No.: R04971
Inspection Type: Routine, Announced Priority: 1-2
Inspection Date: 10/4-5/11 Inspectors: SS, JG

File No.: 29
Licensee: Waste Controls Specialist License No.: R04971
Inspection Type: Routine, Announced Priority: 1-2
Inspection Date: 7/1-2/13 Inspector: SS

Comment: Close-out letter to licensee issued on 1/23/14.

File No.: 30
Licensee: Waste Controls Specialist, LLC License No.: R04100
Inspection Type: Shipment Receipt Routine, Announced Priority: 1-2
Inspection Date: 4/27/12 Inspector: MA

File No.: 31
Licensee: Waste Controls Specialist, LLC License No.: R04100
Inspection Type: Shipment Receipt Routine, Announced Priority: 1-2
Inspection Date: 10/19/12 Inspector: MK

File No.: 32
Licensee: Waste Controls Specialist, LLC License No.: R04100
Inspection Type: Shipment Receipt Routine, Announced Priority: 1-2
Inspection Date: 10/29/12 Inspector: JG

File No.: 33
Licensee: Waste Controls Specialist, LLC License No.: R04100
Inspection Type: Shipment Receipt Routine, Announced Priority: 1-2
Inspection Date: 5/3/13 Inspector: MK

File No.: 34
Licensee: Waste Controls Specialist, LLC License No.: R04100
Inspection Type: Shipment Receipt Routine, Announced Priority: 1-2
Inspection Date: 10/16/13 Inspector: JG

File No.: 35
Licensee: Waste Controls Specialist, LLC License No.: R04100
Inspection Type: Shipment Receipt Routine, Announced Priority: 1-2
Inspection Date: 10/24/13 Inspector: JG

File No.: 36
Licensee: Uranium Resources, Inc. Kingsville Dome Facility License No.: R03653 (UIC Permit UR02827)
Inspection Type: Routine UIC Priority: 1
Inspection Date: 3/17 – 3/18/10 Inspector: MA

File No.: 37
Licensee: Uranium Resources, Inc. Kingsville Dome Facility License No.: R03653 (UIC Permit UR02827)
Inspection Type: Routine UIC Priority: 1
Inspection Date: 7/2 – 7/3/13 Inspector: MA

File No.: 38
Licensee: Uranium Resources, Inc. Rosita Facility License No.: R03653 (UIC Permit UR02880)
Inspection Type: Routine UIC Priority: 1
Inspection Date: 2/2/10 Inspectors: MA, SS

File No.: 39
Licensee: Uranium Resources, Inc. Rosita Facility License No.: R03653 (UIC Permit UR02880)
Inspection Type: Routine UIC Priority: 1
Inspection Date: 3/15 – 3/18/11 Inspectors: MA, SS

File No.: 40
Licensee: Uranium Resources, Inc. Vasquez Facility License No.: R03653 (UIC Permit UR03050)
Inspection Type: Routine UIC Priority: NA
Inspection Date: 7/2 – 7/3/13 Inspector: MA

File No.: 41
Licensee: Exxon Mobil Ray Point Uranium Mill License No.: R01431
Inspection Type: Routine Conventional Mill Priority: NA
Inspection Date: 5/15/13 Inspector: SS

File No.: 42
Licensee: Conoco Phillips Conquista Project Uranium Mill License No.: R01634
Inspection Type: Routine Conventional Mill Priority: NA
Inspection Date: 5/16/13 Inspector: SS

File No.: 43
Licensee: Rio Grande Resources Panna Maria Uranium Mill License No.: R02402
Inspection Type: Routine Conventional Mill Priority: NA
Inspection Date: 11/20/13 Inspector: SS

INSPECTOR ACCOMPANIMENTS

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

Texas Department of State Health Services

Accompaniment No.: 1
Licensee: Dallas Oncology Consultants PA License No.: L06352
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 1/13/14 Inspector: SS

Accompaniment No.: 2
Licensee: Christus Santa Rosa Hospital – New Braunfels License No.: L02429
Inspection Type: Routine, Announced Priority: 3
Inspection Date: 1/14/14 Inspector: JD

Accompaniment No.: 3
Licensee Fox NDE, LLC: License No.: L06411
Inspection Type: Initial, Announced Priority: 1
Inspection Date: 1/15/14 Inspector: JC

Accompaniment No.: 4
Licensee: Diamond Inspection License No.: L06229
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 1/16/14 Inspector: CM

Accompaniment No.: 5
Licensee: Team Industrial Services, Inc. License No.: L00087
Inspection Type: Routine, Announced Priority: 1
Inspection Date: 12/16/13 Inspector: RP

Accompaniment No.: 6
Licensee: Scientific Drilling International License No.: L05105
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 12/17/13 Inspector: TH

Accompaniment No.: 7
Licensee: Thrubit, LLC License No.: L06030
Inspection Type: Initial, Announced Priority: 2
Inspection Date: 12/18/13 Inspector: DP

Accompaniment No.: 8
Licensee: Tenet Hospitals LTD dba Sierra Medical Center License No.: L04758
Inspection Type: Routine, Announced Priority: 2
Inspection Date: 1/28/14 Inspector: GG

Texas Commission on Environmental Quality

Accompaniment No.: 9
Licensee: Waste Controls Specialist, LLC License No.: R04100
Inspection Type: Shipment Receipt Mock Inspection Priority: 1-2
Inspection Date: 1/29-30/14 Inspectors: JG, MK

Comment: Due to lack of any waste shipments a mock inspection was performed

Accompaniment No.: 10
Licensee: South Texas Mining Venture, LLP License No.: R06062
Inspection Type: Routine Radioactive License (not UIC) Priority: 1
Inspection Date: 2/6/14 Inspectors: MA, SS

Comment: Power failure procedures, environmental monitoring results, and ground water reports were not reviewed as part of the inspection.

APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

Texas Department of State Health Services

File No.: 1
Licensee: Forest Park Medical Center at Southlake LLC — License No.: L06600
Type of Action: New — Amendment No.: 00
Date Issued: 12/16/12 — License Reviewer: CH

File No.: 2
Licensee: Quantum Technical Services LLC — License No: L06406
Type of Action: New — Amendment No.: 00
Date Issued: 6/9/11 — License Reviewer: RF

File No.: 3
Licensee: Frontier Tubular Solutions LLC — License No.: L06581
Type of Action: New — Amendment No.: 00
Date Issued: 9/27/13 — License Reviewer: KS

File No.: 4
Licensee: Control & Inspection Services USA Corporation — License No.: L06611
Type of Action: New — Amendment No.: 00
Date Issued: 2/3/14 — License Reviewer: VD

File No.: 5
Licensee: Avance Biosciences Inc. — License No: L06493
Type of Action: New — Amendment No.: 00
Date Issued: 8/1/12 — License Reviewer: KS

File No.: 6
Licensee: The Methodist Hospital — License No.: L00457
Type of Action: Amendment — Amendment No.: 192
Date Issued: 10/16/13 — License Reviewer: SS

File No.: 7
Licensee: Oceaneering International Inc. — License No.: L04463
Type of Action: Amendment — Amendment No.: 80
Date Issued: 2/15/12 — License Reviewer: JK

File No.: 8
Licensee: Aluman Mill Products — License No.: L04663
Type of Action: Amendment — Amendment No.: 19
Date Issued: 10/11/13 — License Reviewer: SG

File No.: 9
Licensee: Panhandle Nuclear Rx Ltd License No.: L04683
Type of Action: Amendment Amendment No.: 28
Date Issued: 1/30/14 License Reviewer: JSK

File No.: 10
Licensee: MISTRAS Group Inc. License No.: L06369
Type of Action: Amendment Amendment No.: 13
Date Issued: 12/12/13 License Reviewer: KS

File No.: 11
Licensee: Nabors Completion and Production Services Co. License No.: L06375
Type of Action: Amendment Amendment No.: 2
Date Issued: 10/25/12 License Reviewer: KS

File No.: 12
Licensee: Trace Life Sciences Inc. License No: L05435
Type of Action: Renewal Amendment No.: 24
Date Issued: Pending since 12/31/10 License Reviewer: JSK

File No.: 13
Licensee: East Texas Medical Center Crockett License No.: L02774
Type of Action: Renewal Amendment No.: -
Date Issued: Pending since 1/31/2010 License Reviewer: VD

File No.: 14
Licensee: The University of Texas Health Science Center at Houston License No.: L02774
Type of Action: Renewal Amendment No.: -
Date Issued: Pending since 1/31/10 License Reviewer: VD

File No.: 15
Licensee: Golden Plains Community Hospital License No.: L04369
Type of Action: Renewal Amendment No.: -
Date Issued: Pending since 1/31/2010 License Reviewer: PS

File No.: 16
Licensee: Mohammed Attar MD PA License No.: L05615
Type of Action: Renewal Amendment No.: 06
Date Issued: 6/28/12 License Reviewer: JSK

File No.: 17
Licensee: Petnet Houston LLC License No.: L05542
Type of Action: Renewal Amendment No.: -
Date Issued: Pending since 8/31/09 License Reviewer: PS

File No.: 18
Licensee: Flange-Tech License No.: L04281
Type of Action: Renewal Amendment No.: -
Date Issued: Pending since 3/31/06 License Reviewer: RF

File No.: 19
Licensee: Gammatron Inc. License No.: L02148
Type of Action: Renewal Amendment No.: -
Date Issued: Pending since 1/31/12 License Reviewer: JK

File No.: 20
Licensee: Southwest Research Institute License No.: L00775
Type of Action: Renewal Amendment No.: -
Date Issued: Pending since 12/31/10 License Reviewer: JK

File No.: 21
Licensee: Columbia Scientific Balloon Facility License No.: L04717
Type of Action: Renewal Amendment No.: 10
Date Issued: 12/11/13 License Reviewer: CH

File No.: 22
Licensee: Seton Healthcare License No.: L06492
Type of Action: Termination Amendment No.: 01
Date Issued: 1/25/2013 License Reviewer: JSK

File No.: 23
Licensee: Metabolic Imaging of Laredo, LLC License No.: L05890
Type of Action: Termination Amendment No.: 06
Date Issued: 10/15/13 License Reviewer: SS

File No.: 24
Licensee: Tyco Healthcare Kendall LP License No.: L03314
Type of Action: Termination Amendment No.: 25
Date Issued: 12/18/13 License Reviewer: JK

File No.: 25
Licensee: STP Nuclear Operating Company License No.: L04222
Type of Action: Termination Amendment No.: 29
Date Issued: 12/4/13 License Reviewer: SG

File No.: 26
Licensee: Sterigenics US LLC License No.: L03851
Type of Action: Exemption Amendment No.: 42
Date Issued: 8/22/13 License Reviewer: JK

File No.: 27
Licensee: Superior Production Logging Inc. License No.: L01983
Type of Action: Exemption Amendment No.: 42
Date Issued: 11/1/12 License Reviewer: RF

File No.: 28
Registrant: Waste Control Specialists Registrant No.: W0013
Type of Action: Exemption Amendment No.: N/A
Date Issued: 7/17/12 License Reviewer: RF

Texas Commission on Environmental Quality

File No.: 29
Licensee: Waste Controls Specialist, LLC License No.: R04100
Type of Action: Minor Amendment Amendment No.: 3
Date Issued: 1/6/11 License Reviewer: DC

File No.: 30
Licensee: Waste Controls Specialist, LLC License No.: R04100
Type of Action: Administrative Amendment Amendment No.: 8
Date Issued: 8/30/11 License Reviewer: ST

File No.: 31
Licensee: Waste Controls Specialist, LLC License No.: R04100
Type of Action: Minor Amendment Amendment No.: 18
Date Issued: 9/18/12 License Reviewer: BB

File No.: 32
Licensee: Waste Controls Specialist, LLC License No.: R04100
Type of Action: Administrative Amendment Amendment No.: 22
Date Issued: 7/24/13 License Reviewer: HW

File No.: 33
Licensee: Waste Controls Specialist, LLC License No.: R04100
Type of Action: Minor Amendment Amendment No.: 23
Date Issued: 9/5/13 License Reviewer: RD, BS, KE

File No.: 34
Licensee: South Texas Mining Venture, LLP License No.: R06062 (UIC Permit UR03070)
Type of Action: Class III UIC PAA Application Amendment No.: UR03070PAA4
Date Issued: 11/4/10 Permit Reviewer: MR

File No.: 35
Licensee: South Texas Mining Venture, LLP License No.: R06062 (UIC Permit UR03070)
Type of Action: Permit Processing Schedule Amendment No.: UR03070PAA4
Date Issued: 11/4/10 Permit Reviewer: MR

File No.: 36
Licensee: South Texas Mining Venture, LLP License No.: R06062 (UIC Permit UR03070)
Type of Action: Compliance History Report Amendment No.: NA
Date Issued: 12/5/13 Permit Reviewer: MR

Comment: Staff did not demonstrate they were receiving adequate information on site performance/compliance history to inform actions using this document.

File No.: 37
Licensee: South Texas Mining Venture, LLP License No.: R06062 (UIC Permit UR 03070)
Type of Action: UIC P&A and Decommissioning Surety Update Amendment No.: NA
Date Issued: 8/16/13 Permit Reviewer: ST

File No.: 38
Licensee: Mestena Uranium, LLC License No.: R05360 (UIC Permit UR03060)
Type of Action: UIC P&A Surety Update Amendment No.: NA
Date Issued: 8/9/13 License Reviewer: ST

File No.: 39
Licensee: Rio Grande Resources Panna Maria Uranium Mill Site License No.: R02402
Type of Action: Surveillance Monitoring Report Amendment No.: NA
Date Issued: 10/17/13 License Reviewer: KT

File No.: 40
Licensee: Conoco Phillips Conquista Project Uranium Mill Site License No.: R01634
Type of Action: Semi-Annual Ground Water Monitoring Report Amendment No.: NA
Date Issued: 10/24/13 License Reviewer: KT

File No.: 41
Licensee: Exxon Mobil Ray Point Uranium Mill Site License No.: R01431
Type of Action: Quarterly Monitoring Report Amendment No.: NA
Date Issued: 10/30/13 License Reviewer: KT

File No.: 42
Licensee: Rio Grande Resources Panna Maria Mill Site License No.: R02402
Action Type: Uranium Mill Tailings Impoundment Site Visit Amendment No: NA
Date Issued: 1/27/14 License Reviewer: KT

File No.: 43
Licensee: Exxon Mobil Ray Point Uranium Mill Site License No.: R01431
Action Type: Uranium Mill Tailings Impoundment Site Visit Amendment No: NA
Inspection Date: 1/27/14 License Reviewer: KT

File No.: 44
Licensee: Mestena Uranium, LLC ISR site License No.: R05360
Type of Action: Amendment Amendment No.: NA
Date Issued: 2/4/13 Permit Reviewer: ST

File No.: 45
Licensee: South Texas Mining Venture, LLP License No.: R06062
Type of Action: Semi-Annual Environmental Monitoring Report Amendment No.: NA
Date Issued: 8/28/12 License Reviewer: BB

File No.: 46
Licensee: South Texas Mining Venture, LLP License No.: R06062
Type of Action: Amendment Amendment No.: NA
Date Issued: 11/17/10 License Reviewer: GS

File No.: 47
Licensee: Rio Grande Resources Panna Maria Uranium Mill License No.: R02402
Type of Action: Annual Decommissioning Cost Estimate Amendment No.: NA
Date Issued: 9/25/13 License Reviewer: ST

File No.: 48
Licensee: Mestena Uranium, LLC License No.: R05360
Type of Action: Annual Decommissioning Cost Estimate Review Amendment No.: NA
Date Issued: 3/18/13 License Reviewer: GS

File No.: 49
Licensee: Intercontinental Energy Corporation Lamprecht and Zamzow ISR Sites
Revoked License No.: L02538
Type of Action: Decommissioning Action Request Letter Amendment No.: NA
Date Issued: 7/23/13 License Reviewer: CM

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1
Licensee: MD Anderson Cancer Center — License No.: L00466
Date of Incident: 9/9/11 — NMED No.: 110486
Investigation Date: 9/13/11 — Type of Incident: Medical Event
Type of Investigation: Phone

File No.: 2
Licensee: Baylor Radiosurgery Center — License No.: L05842
Date of Incident: 9/30/10 — NMED No.: 100492
Investigation Date: 10/1/10 — Type of Incident: Medical Event
Type of Investigation: Phone

File No.: 3
Licensee: UT Southwest Medical Center — License No.: L00384
Date of Incident: 7/16/10 — NMED No.: 110108
Investigation Date: 3/1/11 — Type of Incident: Medical Event
Type of Investigation: Site

File No.: 4
Licensee: Pasadena Refining System — License No.: L01344
Date of Incident: 12/10/11 — NMED No.: 110660
Investigation Date: 1/12/12 — Type of Incident: Damaged Equipment
Type of Investigation: Site

File No.: 5
Licensee: Cardinal Health Nuclear Pharmacy — License No.: L01911
Date of Incident: 1/11/12 — NMED No.: 120060
Investigation Date: 1/13/12 — Type of Incident: Medical Event
Type of Investigation: Phone

File No.: 6
Licensee: Phoenix NDT — License No.: L04454
Date of Incident: 8/31/11 — NMED No.: 120137
Investigation Date: 1/27/12 — Type of Incident: Potential Overexposure
Type of Investigation: Site

File No.: 7
Licensee: UT Southwest Medical Center — License No.: L00384
Date of Incident: 2/16/12 — NMED No.: 120144
Investigation Date: 2/17/12 — Type of Incident: Medical Event
Type of Investigation: Phone

File No.: 8
Licensee: MD Anderson Cancer Center — License No.: L00460
Date of Incident: 4/11/12 — NMED No.: 120225
Investigation Date: 4/13/12 — Type of Incident: Medical Event
Type of Investigation: Phone

File No.: 9
Licensee: Goolsby Testing
Date of Incident: 10/18/12
Investigation Date: 11/1/12
License No.: L03115
NMED No.: 120653
Type of Incident: Damaged Equipment
Type of Investigation: Site

File No.: 10
Licensee: Physician Reliance
Date of Incident: 1/5/12
Investigation Date: 11/21/12
License No.: L05545
NMED No.: 120690
Type of Incident: Medical event
Type of Investigation: Phone

File No.: 11
Licensee: Sterigenics US at Ft. Worth
Date of Incident: 2/20/13
Investigation Date: 2/20/13
License No.: L03851
NMED No.: 130112
Type of Incident: Equipment Failure
Type of Investigation: Phone

File No.: 12
Licensee: Sterigenics US at Ft. Worth
Date of Incident: 2/28/13
Investigation Date: 3/1/13
License No.: L03851
NMED No.: 130122
Type of Incident: Equipment Failure
Type of Investigation: Phone

File No.: 13
Licensee: Petrochem Inspection Services
Date of Incident: 3/26/13
Investigation Date: 3/27/13
License No.: L04460
NMED No.: 130147
Type of Incident: Damaged Equipment
Type of Investigation: Phone

File No.: 14
Licensee: Rosa of North Dallas
Date of Incident: 3/27/13
Investigation Date: 5/8/13
License No.: L06186
NMED No.: 130150
Type of Incident: Medical Event
Type of Investigation: Site

File No.: 15
Licensee: Thermo Process Instruments
Date of Incident: 5/15/13
Investigation Date: 5/24/13
License No.: L03524
NMED No.: 130246
Type of Incident: Contamination
Type of Investigation: Site

File No.: 16
Licensee: The Methodist Hospital
Date of Incident: 6/3/13
Investigation Date: 6/3/13
License No.: L00457
NMED No.: 130264
Type of Incident: Equipment Failure
Type of Investigation: Phone

File No.: 17
Licensee: Lawrence Engineering
Date of Incident: 12/2/11
Investigation Date: 12/11/11
License No.: L05707
NMED No.: 130561
Type of Incident: Lost/Stolen RAM
Type of Investigation: Site

File No.: 18
Licensee: Texas Gamma Ray
Date of Incident: 11/19/13
Investigation Date: 11/20/13
License No.: L05561
NMED No.: 130563
Type of Incident: Equipment Failure
Type of Investigation: Phone

File No.: 19
Licensee: Qualspec Services LLC
Date of Incident: 11/20/13
Investigation Date: 12/16/13
License No.: L06351
NMED No.: 130566
Type of Incident: Equipment Failure
Type of Investigation: Phone

File No.: 20
Licensee: Renegade Wire Line Services
Date of Incident: 10/25/13
Investigation Date: 2/5/14
License No.: L06307
NMED No.: 130575
Type of Incident: Potential Overexposure
Type of Investigation: Site

File No.: 21
Licensee: Steris Isomedix Services
Date of Incident: 11/29/13
Investigation Date: 12/2/13
License No.: L04268
NMED No.: 130586
Type of Incident: Equipment Failure
Type of Investigation: Phone

File No.: 22
Licensee: Wilco NDT
Date of Incident: 12/10/13
Investigation Date: 12/17/13
License No.: Reciprocity NM IR 470-05
NMED No.: 130614
Type of Incident: Potential Overexposure
Type of Investigation: Site

File No.: 23
Licensee: Associated Couriers
Date of Incident: 12/8/13
Investigation Date: 12/9/13
License No.: General
NMED No.: 140029
Type of Incident: Lost/Stolen RAM
Type of Investigation: Phone

APPENDIX F

SEALED SOURCE AND DEVICE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1
Registry No.: TX-1328-D-101-S — SS&D Type: (T) Other: Mobile Gamma
Applicant Name: Nuclear Scanning Services, Inc. — Type of Action: New
Date Issued: 1/11/13 — Reviewers: JK, SG

File No.: 2
Registry No.: TX-1363-D-101-S — SS&D Type: (F) Well Logging
Applicant Name: Hunter Well Science, Inc. — Type of Action: New
Date Issued: 4/19/13 — Reviewers: JK, SG

File No.: 3
Registry No.: TX-1376-D-101-S — SS&D Type: (D) Gamma Gauge
Applicant Name: Varco, L.P. — Type of Action: New
Date Issued: 11/20/13 — Reviewers: JK, SG

File No.: 4
Registry No.: TX-0734-D-107-S — SS&D Type: (T) Other: Mobile Gamma
Applicant Name: Tracerco — Type of Action: New
Date Issued: 1/8/14 — Reviewers: JK, KS

File No.: 5
Registry No.: TX-0634-D-178-B — SS&D Type: (D) Gamma Gauge
Applicant Name: Thermo Fisher Scientific — Type of Action: New
Date Issued: 3/23/10 — Reviewers: JK, RF

File No.: 6
Registry No.: TX-0734-D-105-G — SS&D Type: (D) Gamma Gauge
Applicant Name: Tracerco — Type of Action: New
Date Issued: 6/9/10 — Reviewers: SG, RF

File No.: 7
Registry No.: TX-1141-D-101-S — SS&D Type: (B) Medical Radiography
Applicant Name: Positron Corp. — Type of Action: New
Date Issued: 11/19/10 — Reviewers: SG, RF

Comment: The reviewers did not ensure that the foreign manufacturer/distributor had a U.S. radioactive materials license, per Texas regulations, or an import/export license. Case file was missing a review checklist. SSD registration is for a device that contains NARM material that is now distributed from the State of Indiana. The registration will be transferred to the NRC.

File No.: 8
Registry No.: TX-0734-D-106-S SS&D Type: (D) Gamma Gauge
Applicant Name: Tracerco Type of Action: New
Date Issued: 4/8/11 Reviewers: SG, RF

File No.: 9
Registry No.: TX-0642-D-105-B SS&D Type: (N) Ion Generator
Applicant Name: Thermo Finnigan Type of Action: New
Date Issued: 9/30/11 Reviewers: JK, KE

File No.: 10
Registry No.: TX-1351-D-101-B SS&D Type: (D) Gamma Gauge
Applicant Name: Multi Phase Meters, Inc. Type of Action: New
Date Issued: 4/17/12 Reviewers: JK, KS

Comment: The reviewers did not ensure that the foreign manufacturer/distributor had a U.S. radioactive materials license, per Texas regulations, or an import/export license.

File No.: 11
Registry No.: TX-1351-D-102-B SS&D Type: (D) Gamma Gauge
Applicant Name: Multi Phase Meters, Inc. Type of Action: New
Date Issued: 7/27/12 Reviewers: JK, KS

Comment: The reviewers did not ensure that the foreign manufacturer/distributor ha U.S. radioactive materials license, per Texas regulations, or an import/export license.

File No.: 12
Registry No.: TX-0634-D-176-B SS&D Type: (H) General Neutron Source Applications
Applicant Name: Thermo Fisher Scientific Type of Action: Amendment
Date Issued: 7/22/10 Reviewers: JK, RF

File No.: 13
Registry No.: TX-0734-D-101-B SS&D Type: (D) Gamma Gauge
Applicant Name: Tracerco Type of Action: Amendment
Date Issued: 6/4/13 Reviewers: JK, RF

File No.: 14
Registry No.: TX-0642-D-803-B SS&D Type: (N) Ion Generator
Applicant Name: Thermo Finnigan Type of Action: Inactivation
Date Issued: 2/1/12 Reviewers: JK, KS

File No.: 15
Registry No.: TX-8260-S-801-S SS&D Type: (T) Other
Applicant Name: GNI Incorporated Type of Action: Inactivation
Date Issued: 10/31/12 Reviewers: JK, KS

File No.: 16
Registry No.: TX-8260-S-802-S
Applicant Name: GNI Incorporated
Date Issued: 11/16/12

SS&D Type: (F) Well Logging
Type of Action: Inactivation
Reviewers: JK, KS

ATTACHMENT(S)

June 12, 2014 Letter from Kathryn C. Perkins
Texas DSHS Response to the Draft Report
ADAMS Accession No.: ML14177A332

June 20, 2014 Letter from Kelly Cook and Charles Maguire
Texas CEQ Response to the Draft Report
ADAMS Accession No.: ML14174A773

NRC Comment Resolution to June 12 and June 20, 2014 Letter
ADAMS Accession No.: ML14192A498

Attachment

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

DAVID L. LAKEY, M.D.
COMMISSIONER

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June 12, 2014

Mr. Duncan White, Chief
Agreement State Programs Branch
Division of Materials Safety and State Agreements
Office of Federal and State Materials and
Environmental Management Programs
U.S. Nuclear Regulatory Commission
Two White Flint North
11545 Rockville Pike
Rockville, MD 20852

Dear Mr. White,

We have reviewed your letter dated May 21, 2014 and attached recommendations from the February 2014 Integrated Materials Performance Evaluation Program (IMPEP) review team's draft report. Enclosed are the Texas Department of State Health Services' (DSHS) comments to the draft report.

Thank you and your team's daily updates for my staff and final closeout briefing with me and my senior managers.

If you have any questions, please contact me at 512-834-6660.

Sincerely,

Kathryn C. Perkins

Kathryn C. Perkins, RN, MBA
Assistant Commissioner
Division for Regulatory Services
Texas Department of State Health Services

cc: Donna Janda NRC Region I
Lisa Dimmick NRC Headquarters

enclosure

Texas Department of State Health Services Comments on the
Draft IMPEP 2014 Report June 11, 2014

1. The review team concluded that the Department's training program is adequate to carry out its regulatory duties and noted that Texas management supports the ~~Bureau~~ radiation control program's training program.

2. There are a couple points in the licensing section that could use some clarification or explanation:

- The third paragraph on page 6 says that all nine license reviewers have full signature authority. They do with regard to signing their own deficiency and follow-up letters and that may be what was meant. At the end of the fourth paragraph it states that the program coordinators sign the license which is correct, along with Richard and me as back-up.

- The third paragraph later has a sentence saying that a ten year interval was implemented in 2012. It was implemented in 2005.

- Near the top of page 7 it states that all new licensees receive a pre-licensing site visit. That is true if it is someone we do not consider a known entity (ex. previous licensee), so it depends on the meaning of the word "new" in this context.

- In the SS&D section starting on the bottom of page 12 there is a comment about import/export licensing of foreign manufacturers. Two of the licensees have a Texas license and the third is a large company known to the industry that owns another Texas licensee, although we still should have asked for their license. All are able to import and export devices under an NRC exemption. Since we were aware that an exemption applied in these cases we did not ask for a copy of an import/export license.

3. In our IMPEP questionnaire response originally submitted to NRC, the following items have been omitted in this Draft report, pages 9-10:

    - The Department requested that the following item to be corrected on the DSHS State Regulation Status document but yet there is no statement included in this Draft report that NRC has corrected or will be correcting this noted item:

        The following RATS ID should be corrected to reflect TCEQ responsibility: RATS 1993-1 Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted areas and spill sites]; Parts 30 & 40; 58 FR 39638.

    - This package should be included in this Draft report since the noted RATS IDs applicable to the Department's rules were submitted to NRC for review (§§289.202, 289.252 & 289.256) during the review period:

        RATS ID 2007-2 (NRC letter dated 11/19/2010

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 20, 2014

Duncan White, Chief
Agreement State Programs Branch
Division of Materials Safety and State Agreements
Office of Federal and State Materials and Environmental Management Programs
U. S. Nuclear Regulatory Commission
Washington D.C. 20555-0001

Re: TCEQ Response to Draft IMPEP Report Dated May 21, 2014

Dear Mr. White,

Thank you for the letter and draft report submitted to the Texas Department of State Health Services (DSHS) and the Texas Commission on Environmental Quality (TCEQ) (Commission) on May 21, 2014. As you state in your letter, the U.S. Nuclear Regulatory Commission (NRC) uses the Integrated Materials Performance Evaluation Program (IMPEP) in the evaluation of Agreement State programs. The draft report attached to the letter documents the results of the Agreement State review held in Texas on February 10-14, 2014.

The Commission is pleased that the NRC's IMPEP Review Team has recommended that the Texas Agreement State's Program be found to be at the highest attainable level to adequately protect public health and safety and is compatible with the NRC's program. We are also pleased that the Review Team has recommended that the next IMPEP review take place in approximately four years, which is the maximum allowable time between program reviews.

The Commission is also aware that the Review Team has three program recommendations for the TCEQ. Our agency takes these recommendations seriously and appreciates the opportunity to respond to these suggestions as well as comment on other parts of the Review Team's draft report. The sequence of our responses follows the comments and recommendations in the draft report.

Comment 1
(Section 3.3.1 and 3.4.1)
Our first comment is in regard to the Review Team's remarks regarding Technical Staffing and Training in Section 3.3.1 and 3.4.1 of the draft report. According to the draft report, the Compliance Team has two full-time onsite Low Level Radioactive Waste (LLRW) inspectors and two main office inspectors that are shared with the

uranium recovery program for a total of 2.4 full-time employees (FTEs) dedicated to the LLRW inspection program. In addition, Section 3.4.1 states that approximately 0.7 FTE is assigned to the uranium recovery program.

The Commission is not sure how the FTE count of 2.4 was determined, but would like to clarify the job description of the Compliance Team. The TCEQ maintains two full-time resident inspectors at the LLRW disposal site in Andrews County. These two inspectors provide daily operational coverage Monday through Friday and on weekends and holidays as necessary. Their primary duty is to inspect incoming shipments of Compact Commission Waste for acceptance and disposal, but also assist with LLRW, by-product and waste processing investigations, and complaint investigations. The two "main office" inspectors conduct the LLRW investigations, LLRW by-product and waste processing investigations, complaint investigations, Uranium Recovery investigations, and Class III Underground Injection Control (UIC) investigations, along with other Radioactive Material compliance duties such as training and developing investigation procedures, etc. In addition, the Homeland Security Coordinator/Section Manager (HSC) and the Assistant Homeland Security Coordinator (AHSC) spend considerable time reviewing and approving LLRW investigations as well as LLRW disposal investigations. They also spend time accompanying investigators on inspections throughout the year as workloads allow. The main office investigators and the HSC and AHSC adjust their daily, monthly and annual schedules and activities relative to the LLRW, Uranium, and UIC programs based on agency strategies, risks, and needs to further protect human health and the environment. Additionally, the environmental monitoring (EM) compliance program for LLRW activities at the Andrews disposal site is conducted by Health Physicists and Engineers from Radioactive Materials Division (RMD) on an annual basis where soil and groundwater samples are collected for analysis. Waste Control Specialists (WCS) submits EM reports to the agency and RMD staff review these reports for compliance on a semi-annual basis.

Comment 2
(Section 3.3.2)
In Section 3.3.2, the draft report states that the Commission performed an inspection of licensee activities during the first waste shipment and considers this inspection to be the initial inspection of the LLRW disposal site. The Review Team determined that this inspection was limited to a review of waste receipt and disposal activities and did not include an inspection of other licensee activities that would be reviewed during a routine health and safety inspection, such as the licensee's radiation protection and environmental compliance programs.

The inspectors evaluated the licensee's radiation control measures during the receipt, transfer, and disposal of the waste shipment. The inspection included witnessing the

waste shipment surveys and visual inspections conducted by the licensee. In addition, the inspectors also surveyed and conducted a visual inspection of the waste shipment to verify the licensee's measurements and findings. Also the inspectors witnessed the verification of the waste class, personnel frisking for the presence of radioactive material contamination, and reviewed personnel exposure records. They also reviewed transport vehicle surveys as well as the visual inspection records which included the results of wipe tests. Also, the licensee provides semi-annual EM reports to RMD for their review. The reports include a summary of the environmental and effluent monitoring program, including the results of all environmental media samples. RMD staff conveys any issues that need further action to the licensee. RMD staff also visited the facility and split samples with the licensee during the review period. The resident inspectors, in coordination with the licensee, exchange the environmental dosimeters and radon cups on a quarterly basis.

Therefore, even though the Review Team did not consider the April 2012 inspection to be an initial inspection of the LLRW disposal site (because it was not described as such), the Commission conducted inspections under the waste processing license which would be considered during an initial inspection of the LLRW disposal site, and which would be adequate to protect public health and safety (please see the attached chart and discussion for additional information).

Comment 3
(Section 3.3.2)
The draft report also states that the Compliance Team conducted routine inspections of the radioactive waste processing license in 2010, 2011 and 2013 and that the waste processing license was not inspected in 2012.

The Commission is not clear why the lack of an inspection in 2012 has been noted. The Commission, which has two permanent resident inspectors on-site each day, inspects the waste processing licenses every two years in accordance with the Enclosure 1 of the NRC's Manual Chapter (MC) 2800. The Commission considers this inspection frequency, coupled with the daily presence of resident inspectors to be adequate to protect public health and safety.

However, while the Commission does acknowledge that NRC's MC 2800, which establishes a routine inspection frequency of every two years for LLRW disposal facilities, is in conflict with NRC's MC 2401 which prescribes an annual routine inspection, the Commission will seek to align its LLRW inspection frequency based on the NRCs final input.

Comment 4
(Section 3.3.3)
The draft report states in Section 3.3.3 that the Radioactive Material Licensing Section oversees the review of financial assurance, engineering reports, and environmental monitoring reports for the LLRW disposal site. It goes on to say that the environmental staff visits the facility annually to review the environmental monitoring program and that the main office and resident inspectors perform the engineering inspections and provide feedback to the engineering staff in the main office. This statement needs to be clarified.

The resident inspectors do not perform engineering inspections. The resident inspectors provide information, including photos of certain aspects of construction or other related engineering activities based on their observations.

Comment 5
(Section 3.3.3)
The draft report says that four inspection reports for the waste processor license were reviewed. The Review Team noted that the 2013 inspection of the waste processing facility was documented using a pre-drafted report format that did not clearly identify the scope of the inspection and was being finalized during this onsite review.

The Commission is unclear as to the rationale behind this assertion. The subject report clearly stated the scope of the inspection was to evaluate the licensee's compliance with the applicable Commission's rules/regulations and the conditions of the licensee's license related to the waste processing program. The inspection included a review of the Radiation Protection Program Audit, Internal and External Personnel Monitoring, Personnel Frisking, Respiratory Protection, Radiation Work Permits, Personnel Overexposure Incidents, Notification and Reports to Individual, Waste Management, Training, and Posting Requirements. In addition, a facility inspection was conducted which covered the Mixed Waste Treatment Facility and the waste storage areas.

Comment 6
(Section 3.3.3)
The Review Team also noted that the Commission has not yet developed comprehensive inspection procedures to support the overall LLRW inspection program. As listed above, the Review Team noted that the overall inspection report template is a general, pre-drafted, semi-completed inspection report that does not clearly identify the scope of the inspection or documents all the appropriate health and safety issues. The Review Team recommended that the Compliance Team, in coordination with the Radioactive

Materials Section, develop detailed inspection procedures for LLRW inspections to provide feedback to the LLRW program and enhance the inspection program.

The Commission is considering adding detailed procedures to the existing inspection procedures which would enhance the LLRW inspection program. For the on-demand LLRW shipments, the Commission currently uses an inspection report in the form of a checklist which covers the requirements related to the receipt, acceptance, transfer and disposal of the waste. The report includes an inspection findings summary and photos.

Comment 7
(Section 3.3.3)
The Review Team noted that a routine increased controls (IC) inspection of the radioactive waste processor license occurred in January 2010; however, no subsequent routine IC inspections have been conducted of either the waste processing or disposal site license and the Review Team considered the routine IC inspection overdue.

There were no significant changes in IC procedures or activities at the facility up to the opening date of the LLRW disposal site in April 2012; therefore an annual routine IC inspection was not performed. Prior to the receipt of the waste at the LLRW disposal site, the Commission conducted a pre-operational inspection which included the inspection of the security system. The Commission conducted an IC inspection at the LLRW facility at the end of May, 2014.

Comment 8
(Section 3.3.3)
According to the draft report, supervisor accompaniments were conducted annually for all inspectors, with the exception of one inspector who received only one supervisor accompaniment during the review period.

To clarify, supervisor accompaniments of the inspectors were conducted but were not documented. The Commission will document all future supervisor accompaniments as appropriate.

Comment 9
(Section 3.4.1)
In Section 3.4.1 of the draft report, it states that only one inspector is trained to perform UIC permit inspections. The other inspector only conducts the radioactive materials inspections.

For clarification, the other inspector is being trained to perform UIC inspections and has conducted limited UIC permit inspections.

Comment 10
(Section 3.4.2)
According to Section 3.4.2 of the draft report, during the review period, the inspection staff missed 14 of 20 UIC permit inspections and 10 of 44 routine annual radioactive material license inspections. During discussions between the review team, Commission managers and uranium recovery inspectors, the Commission indicated that they had deferred inspections due to the higher than anticipated workload required in preparation for the start of operations at the LLRW disposal site in 2012. Based on information provided by the Commission, the review team determined that there were no currently overdue radiation safety inspections in the Uranium Mills program.

The Commission would like to clarify that the UIC program for Class I, III, IV, and V wells in the State of Texas is the program administered by the TCEQ and approved by EPA pursuant to Section 1422 of the Safe Drinking Water Act (see 40 CFR Section 147.2200). Because TCEQ administers an EPA-approved UIC program pursuant to the Safe Drinking Water Act, TCEQ questions NRC's authority and role regarding its comment on the number of TCEQ-conducted UIC permit inspections. UIC permit inspections do not appear to be under NRC's purview under the Federal Safe Drinking Water Act or the Atomic Energy Act.

TCEQ's EPA-approved UIC program is not subject to requirements regarding the number of permit inspections conducted. TCEQ strives to conduct an inspection of each permitted Class I & III injection well facility annually. TCEQ will also respond and perform inspections based on submitted complaints. Due to staff limitations and priorities for inspecting other facilities, there have been times when TCEQ was not able to inspect each permitted Class III injection well facility annually. The EPA does review the TCEQ UIC program annually, including review of the permit inspection program, and finds each year that the TCEQ runs an acceptable program.

Therefore, the TCEQ respectfully request that all review and mention of the Class III UIC program be removed from the final NRC report.

Comment 11
(Section 3.4.2)
The Commission's procedure requires that inspection findings are communicated to a licensee during the exit meeting at the end of the inspection. A written report is generated for each inspection and provided to the licensee only upon request. The Review Team noted that inspection reports were not reviewed by management within 30 days of the inspection, as specified in Sections 1.6 and 1.7 of the Commission's

Radioactive Materials Compliance Investigation Guidance and in addition, allegedly several inspection reports could not be located.

The Commission agrees with the Review Team's findings regarding management review. This was due to the higher than anticipated workload required in preparation for the start of operations at the LLRW disposal site in 2012. The Commission will make a reasonable effort to adhere to a 30-day time frame. With regard to the missing reports, although the review team initially had difficulty locating the inspection reports in the file room. Based on further discussions with the Review Team, it is the Commission's understanding that the inspection reports in question were located and reviewed by the Review Team.

Comment 12
(Section 3.4.3)
The draft report states in Section 3.4.3 that the Commission's radiation safety inspections were thorough and included operational and record reviews. Any violations were communicated by the inspector to the licensee during exit interviews. However, the Review Team noted that power failure procedures, environmental monitoring results, and groundwater reports are not reviewed as part of the inspection program.

To clarify and to be more accurate, depending on the scope of the inspection, the areas mentioned above are typically inspected/reviewed and documented during the routine UIC permit and/or Radioactive Material inspections. In addition, the permittee/licensee submits quarterly/semi-annual groundwater reports to the Commission for review and any findings are conveyed to the licensee. Furthermore, due to schedule conflicts between the two NRC Review Team members and their unavailability to participate in more than a one-day inspection, the NRC Review Team was unavailable for a full routine inspection. During the accompaniment in February 2014, the inspectors performed an abbreviated facility inspection and followed up on items from the previous inspection due to time constraints. The limited scope of the inspection was discussed with the review team members and the Commission does not believe that comments related to the limited scope of the inspection are appropriate in the final report.

Comment 13
(Section 3.4.3)
According to the draft report, the Commission did not perform pre-operational inspections prior to startup of new facilities and has no equivalent guidance for inspection frequency or inspection report content of the groundwater compliance program to ensure health and safety are protected.

To clarify this statement, during the reporting period, there was only one new in-situ uranium recovery site. The Commission agrees with the Review Team's finding that a pre-operational inspection of this facility was not conducted by the Commission prior to start of production. A pre-operational test was conducted by the licensee in November 2010 and production started that same month. The Commission conducted an inspection of this facility in March 2011. The Commission is considering adding detailed pre-operational procedures for new facilities to the existing inspection procedures to enhance the inspection program. To ensure health and safety, the Commission evaluates and verifies the licensee/permittee environmental compliance program through on-site inspections and/or review of the groundwater monitoring reports submitted by the permittee and the licensee to the Commission.

Comment 14
(Section 3.4.3)
The draft report states that the licensing and permitting staff, who have geohydrology and engineering technical expertise, does not routinely accompany the inspection staff who have health physics expertise during routine inspections.

Also in the draft report, it states that information on the conditions at the sites identified during inspections is not timely communicated to the licensing/permitting staff. The Review Team recommends that the Compliance Team, in coordination with the UIC Permits Section and the Uranium Section, develop detailed inspection procedures for uranium recovery inspections to provide feedback to the uranium recovery program and enhance the inspection program.

To clarify this assertion, it should be noted that the Compliance Team, prior to an inspection, notifies the licensing/permitting staff of their inspection plans and discuss any areas of concern that may pertain to a site that is being inspected. If needed, licensing and/or permitting staff will accompany the inspector during their inspection. With regard to this issue the Commission had followed up with the Review Team at the time of the IMPEP review and provided copies of correspondence documenting consistent communications about inspection findings between the Compliance Team and the licensing/permitting staff.

Comment 15
(Section 3.4.4)
In Section 3.4.4 of the draft report, the Review Team discussed with the Commission the status of one license which was revoked in 2003 for nonpayment of fees. The groundwater at both sites has been fully restored but the surface contamination has not been cleaned up. A gamma survey was performed on both sites in 2012 which confirmed the sites are contaminated. According to the report, neither site is properly

posted or secured based on discussions with Commission staff and observations of the site made by NRC staff. The report also states that the IMPEP review team discussed TCEQ's responsibilities with them.

The Commission is aware of its responsibility to protect the public health and safety at this site. It should be noted that signs had been posted during the last TCEQ review of the site, but that theft of the radiological signage has been an ongoing problem at this location. TCEQ is currently working on a path forward for this area.

Recommendations from the Draft Report

As stated at the beginning of this letter and in the draft report, the Review Team made three program recommendations. Each is addressed below.

1. The Review Team recommends that the Commission develop and implement a strategy to address staffing in the LLRW and uranium recovery inspection programs in order to enhance the effectiveness and efficiency of the Program.

The Commission is considering the development and implementation of additional strategies to address staffing in the LLRW and uranium recovery inspection programs. The Commission recently implemented the use of innovative technologies to automate and streamline LLRW disposal inspections through the use of SharePoint coupled with electronic tablets. The use of innovative technologies greatly increased the efficiencies of the LLRW FTEs, and the commission will seek to expand these same efficiencies to the Uranium and UIC programs.

2. The Review Team recommends that the Compliance Team, in coordination with the Radioactive Materials Section, develop detailed inspection procedures for LLRW inspections to provide feedback to the LLRW program and enhance the inspection program.

The Commission is considering adding detailed procedures to the existing inspection procedures to enhance the inspection program.

3. The Review Team recommends that the Compliance Team, in coordination with the UIC Permits Section and the Uranium Section, develop detailed inspection procedures for uranium recovery inspections to provide feedback to the uranium recovery program and enhance the inspection program.

The Commission is considering adding detailed procedures to the existing inspection procedures to enhance the inspection program.

The TCEQ is very appreciative of the efforts made by the Review Team to understand, evaluate, and recognize the Commission's Low Level Radioactive Waste Disposal Program and its Uranium Recovery Program. The safe regulation of these programs is of paramount importance to the TCEQ and the citizens of Texas. Therefore we are pleased that the Review Team recommended the Texas Agreement State Program be found adequate to protect public health and safety and compatible with the NRC's program. We look forward to continued communication and cooperation with your agency.

Sincerely,

Kelly Cook, Director
Critical Infrastructure Division

Charles Maguire, Director
Radioactive Materials Division

Enclosure:
Low Level Radioactive Waste (LLRW) Disposal Inspection Overview

Low Level Radioactive Waste (LLRW) Disposal Inspection Overview

The inspection frequency of a LLRW disposal facility during operations and closure phases are established in the Nuclear Regulatory Commission (NRC) Manual Chapter (MC) 2401 (issued on 11/27/01). In general, based on MC 2401, the inspection of various license activities should be conducted on an annual basis. However, the inspections of a LLRW disposal facility (waste burial, commercial and non-commercial) is also specified in the Enclosure 1 of the NRC's MC 2800 (dated 11/25/2003) is based on a two year frequency. This appears to be in conflict with the inspection frequency specified in MC 2401. The table below shows the inspection frequencies in MC 2401 for various license activities during the operations phase. The routine inspections conducted by TCEQ are also included in the table.

WCS currently holds a radioactive material license (RML No. R04100) for the receipt and disposal of LLRW and for the storage and processing of radioactive waste. The waste processing license R04971 was combined with RML R04100 when Amendment 22 was issued on July 24, 2013. WCS also holds RML R05807 for the disposal of by-product 11.e.2 material.

WCS was approved by TCEQ to accept and dispose of LLRW on April 25, 2012 under Radioactive Material License R04100. The first shipment of LLRW was disposed of at the WCS facility on April 27, 2012. The TCEQ inspectors inspected the waste shipment which included surveys and visual inspection of the vehicle and the waste package. In addition, the inspectors witnessed and evaluated the radiation control measures followed by WCS during the acceptance transfer, and disposal of the waste shipment. Since this was the first waste shipment disposed at the facility, the inspection performed by the TCEQ counted as the initial operations inspection of the LLRW program.

Although, CID did not specifically document a routine LLRW license inspection, several inspection modules specified in MC 2401 were covered during the inspection of on demand receipt and disposal of the LLRW shipments, routine waste processing license (R04971, prior to be combined with RML 4100) and/or under by-product material license.

Inspection Title	Frequency	Routine Inspection Conducted by TCEQ
Management Entrance/Exit Interview	Each Inspection	**Routine Waste Processing License Inspection** 1/13-14/2010 8/23-25/2011 10/4-5/2011 7/1-2/2013 **Routine LLRW License Inspection** 3/25-27/2014 5/28-30/2014
Radiation Protection	Annual	**Under LLRW License** During on demand receipt, transfer, and disposal of LLRW shipments. **Routine Waste Processing License Inspection** 7/1-2/2013 (Personnel monitoring, respiratory, radiation work permits records; inspection of storage/operational areas, including mix waste treatment facility; posting requirements) **Routine LLRW License Inspection** 3/25-27/2014 5/28-30/2014
Closeout Inspection and Survey	NA	NA
Inspection of Waste Generator Requirements	Every Other Year	This section mainly applies to the licensed waste generators. For waste generated at WCS the TCEQ inspectors in coordination with the RMD inspect the applicable components of the requirements.

Special Nuclear Material (SNM)	Annual	10/4-5/2011
Operations Review of a LLRW disposal facility	Annual	**Under LLRW License** Conducted by the resident inspectors during on demand receipt of the LLRW shipments at the WCS facility; also conducted **Routine LLRW License Inspection** 3/25-27/2014 5/28-30/2014
Facility Engineering	Annual	Conducted by RMD staff as necessary
Solid Waste Management & Transportation of RAM	Annual	**Under LLRW License** Receipt, transfer, and disposal of LLRW shipments, including storage, processing, and packaging of LLRW are conducted by the resident inspectors during on demand receipt of the LLRW shipments at the WCS facility. **Routine Waste Processing License Inspection** 7/1-2/2013 (records and inspection of storage/operational areas) **Routine LLRW License Inspection** 3/25-27/2014 5/28-30/2014 **Note:** WCS has not shipped LLRW or other radioactive materials off site.
Management Organization and Controls	Annual	WCS' management organization, including their responsibilities is checked during each routine inspection if there have been significant changes. WCS has TCEQ approved procedures for the operation of their LLRW disposal facility. These procedures are checked for updates and revisions during routine and/or on demand waste shipments inspections. **Routine LLRW License Inspection** 3/25-27/2014 5/28-30/2014
Operator Training/Retraining	Every Other Year	7/1-2/2013
Surveillance Testing	Annual	The equipment, work orders, procedures used during Receipt, transfer, and disposal of LLRW shipments, including storage, processing, and packaging of LLRW are witnessed by the resident inspectors During on demand receipt of the LLRW shipments at the WCS facility.
Radioactive Waste Management	Annual	1/13-14/2010 10/4-5/2011
Environmental Programs	Annual	WCS has approved Standard Operating Procedures for environmental monitoring program. WCS provides semi-annual environmental monitoring reports to the RMD for their review. The report includes summary of the environmental and effluent monitoring program, including the results of all environmental media samples. RMD staff conveys any issues that need further action to WCS. RMD staff split samples with WCS on a semi-annual basis. The resident inspectors exchange the TCEQ environmental dosimeters and radon cups on a quarterly basis. WCS also provides an annual meteorological report to the RMD for their review. **Routine LLRW License Inspection** 5/28-30/2014 (Visited each environmental monitoring station; inspected Low/high volume air monitoring devices, radon cups, and dosimeters; also inspected one of the four meteorological stations).
Emergency Planning	Annual	WCS is required to conduct biennial on-site emergency response exercises. TCEQ resident inspector(s) and/or other TCEQ staff have participated in the exercises. The most recent emergency response exercise was conducted on 3/28/2014. One of the resident inspectors participated in the exercise. **Routine LLRW License Inspection** 5/28-30/2014 Initiated discussions with WCS staff and conducted records review; additional follow up needed.

Comment Resolution for the Texas Draft IMPEP Report

Texas Department of State Health Services

Comment 1, page 3:

The review team concluded that the Department's training program is adequate to carry out its regulatory duties and noted that Texas management supports the ~~Bureau~~ radiation control program's training program.

Response 1:

Thank you for the clarification. The report has been revised.

Comment 2, page 6:

The third paragraph on page 6 says that all nine license reviewers have full signature authority. They do with regard to signing their own deficiency and follow-up letters and that may be what was meant. At the end of the fourth paragraph it states that the program coordinators sign the license, which is correct, along with Richard and me as backup.

Response 2:

Thank you for the clarification. The report has been revised.

Comment 3, page 6:

The third paragraph later has a sentence saying that a ten year interval was implemented in 2012. It was implemented in 2005.

Response 3:

Thank you for the clarification. The report has been revised.

Comment 4, page 7:

Near the top of page 7 it states that all new licensees receive a pre-licensing site visit. This is true if it is someone we do not consider a known entity (ex. previous licensee), so it depends on the meaning of the word "new" in this context.

Response 4:

Thank you for the clarification. The report has been revised.

Comment 5, page 12:

In the SS&D section starting on the bottom of page 12 there is a comment about import/export licensing of foreign manufacturers. Two of the licensees have a Texas license and the third is a large company known to the industry that owns another Texas licensee, although we still should have asked for their license. All are able to import and export devices under an NRC

exemption. Since we were aware that an exemption applied in these cases we did not ask for a copy of an import/export license.

Response 5:

Thank you for the clarification. During the onsite review, the review team was not made aware of an import/export exemption for these licensees. This type of information should be documented in the file for completeness purposes. The report has been revised to include the additional information on the NRC import/export exemption.

Comment 6, pages 9-10:

In our IMPEP questionnaire response originally submitted to NRC, the following item has been omitted in this Draft report. The Department requested that the following item to be corrected on the DSHS State Regulation Status document but there is no statement in this Draft report that NRC has corrected or will be correcting this noted item:

> *The following RATS ID should be corrected to reflect TCEQ responsibility: RATS 1993-1 Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted areas and spill sites]; parts 30 & 40; 58 FR 39638.*

Response 6:

Thank you for the comment. The Department still has responsibility for RATS ID 1993-1 as it pertains to recordkeeping and license termination. The review team recommends that the Department contact the FSME Regulation Review Coordinator directly to discuss this matter. The report was not revised.

Comment 7, pages 9-10:

In our IMPEP questionnaire response originally submitted to NRC, the following item has been omitted in this Draft report. This package should be included in this Draft report since the noted RATS IDs applicable to the Department's rules were submitted to NRC for review (§§289.202, 289.252, & 289.256) during the review period: *RATS ID 2007-2 (NRC letter dated 11/19/2010)*.

Response 7:

Thank you for the comment. The IMPEP draft report lists only those RATS IDs which were submitted overdue during the review period. RATS ID 2007-2 was submitted timely and therefore not included in the draft IMPEP report.

<u>Texas Commission on Environmental Quality</u>

Comment 1, Section 3.3.1 and 3.4.1:

Our first comment is in regard to the Review Team's remarks regarding Technical Staffing and Training in Section 3.3.1 and 3.4.1 of the draft report. According to the draft report, the Compliance Team has two full-time onsite Low Level Radioactive Waste (LLRW) inspectors and two main office inspectors that are shared with the uranium recovery program for a total of 2.4

full-time employees (FTEs) dedicated to the LLRW inspection program. In addition, Section 3.4.1 states that approximately 0.7 FTE is assigned to the uranium recovery program.

The Commission is not sure how the FTW count of 2.4 was determined, but would like to clarify the job description of the Compliance Team. The TCEQ maintains two full-time resident inspectors at the LLRW disposal site in Andrews County. These two inspectors provide daily operational coverage Monday through Friday and on weekends and holidays as necessary. Their primary duty is to inspect incoming shipments of Compact Commission Waste for acceptance and disposal, but also assist with LLRW, by-product and waste processing investigations, and complaint investigations. The two "main office" inspectors conduct the LLRW investigations, LLRW by-product and waste processing investigations, complaint investigations, Uranium Recovery investigations, and Class III Underground Injection Control (UIC) investigations, along with other Radioactive Material compliance duties such as training and developing investigation procedures, etc. In addition, the Homeland Security Coordinator/Section Manager (HSC) and the Assistant Homeland Security Coordinator (AHSC) spend considerable time reviewing and approving LLRW investigations as well as LLRW disposal investigations. They also spend time accompanying investigators on inspections throughout the year as workloads allow. The main office investigators and the HSC and AHSC adjust their daily, monthly and annual schedules and activities relative to the LLRW, Uranium, and UIC programs based on agency strategies, risks, and needs to further protect human health and the environment. Additionally, the environmental monitoring (EM) compliance program for LLRW activities at the Andrews disposal site is conducted by Health Physicists and Engineers from Radioactive Materials Division (RMD) on an annual basis where soil and groundwater samples are collected for analysis. Waste Control Specialists (WCS) submits EM reports to the agency and RMD staff review these reports for compliance on a semi-annual basis.

Response 1:

Thank you for the clarification. The FTE noted in the draft reflected the technical staff effort for the LLRW and Uranium Recovery programs. The report has been revised to reflect the total FTE, including management oversight, expended by the Commission for the LLRW and Uranium Recovery programs.

Comment 2, Section 3.3.2:

In Section 3.3.2, the draft report states that the Commission performed an inspection of licensee activities during the first waste shipment and considers this inspection to be the initial inspection of the LLRW disposal site. The Review Team determined that this inspection was limited to a review of waste receipt and disposal activities and did not include an inspection of other licensee activities that would be reviewed during a routine health and safety inspection, such as the licensee's radiation protection and environmental compliance programs.

The inspectors evaluated the licensee's radiation control measures during the receipt, transfer, and disposal of the waste shipment. The inspection included witnessing the waste shipment surveys and visual inspections conducted by the licensee. In addition, the inspectors also surveyed and conducted a visual inspection of the waste shipment to verify the licensee's

measurements and findings. Also, the inspectors witnessed the verification of the waste class, personnel frisking for the presence of radioactive material contamination, and reviewed personnel exposure records. They also reviewed transport vehicle surveys as well as the visual inspection records which included the results of wipe tests. Also, the licensee provides semi-annual EM reports to RMD for their review. The reports include a summary of the environmental and effluent monitoring program, including the results of all environmental media samples. RMD staff also visited the facility and split samples with the licensee during the review period. The resident inspectors, in coordination with the licensee, exchange the environmental dosimeters and radon cups on a quarterly basis.

Therefore, even though the Review Team did not consider the April 2012 inspection to be an initial inspection of the LLRW disposal site (because it was not described as such), the Commission conducted inspections under the waste processing license which would be considered during an initial inspection of the LLRW disposal site, and which would be adequate to protect public health and safety (please see the attached chart and discussion for additional information).

Response 2:

Thank you for the comment. No changes to the report were made.

Comment 3, Section 3.3.2:

The draft report also states that the Compliance team conducted routine inspections of the radioactive waste processing license in 2010, 2011, and 2013 and that the waste processing license was not inspected in 2012.

The Commission is not clear why the lack of an inspection in 2012 has been noted. The Commission, which has two permanent resident inspectors on-site each day, inspects the waste processing licenses every two years in accordance with the Enclosure 1 of the NRC's Manual Chapter (MC) 2800. The Commission considers this inspection frequency, coupled with the daily presence of resident inspectors to be adequate to protect public health and safety.

However, the Commission does acknowledge that NRC's MC 2800, which establishes a routine inspection frequency of every two years for LLRW disposal facilities, is in conflict with NRC's MC 2401 which prescribes an annual routine inspection, the Commission will seek to align its LLRW inspection frequency based on the NRC's final input.

Response 3:

Thank you for the comment. The designation of a two-year frequency for inspections of LLRW disposal facilities described in NRC Inspection Manual Chapter (IMC) 2800 is an error and will be corrected during the next revision of IMC 2800. IMC 2800 also directs the reader to use IMC 2401 for the inspection of LLRW disposal facilities. IMC 2401 provides the frequencies for the inspection of various activities at LLRW disposal facilities and the majority of these activities are to be inspected at an annual frequency. No changes to the report were made.

Comment 4, Section 3.3.3:

The draft report states in Section 3.3.3 that the Radioactive Material Licensing Section oversees the review of financial assurance, engineering reports, and environmental monitoring reports for the LLRW disposal site. It goes on to say that the environmental staff visits the facility annually to review the environmental monitoring program and that the main office and resident inspectors perform the engineering inspections and provide feedback to the engineering staff in the main office. This statement needs to be clarified.

The resident inspectors do not perform engineering inspections. The resident inspectors provide information, including photos of certain aspects of construction or other related engineering activities based on their observations.

Response 4:

Thank you for the clarification. The report has been revised to clarify the role of resident inspectors related to engineering inspections.

Comment 5, Section 3.3.3:

The draft report says that four inspection reports for the waste processor license were reviewed. The Review Team noted that the 2013 inspection of the waste processing facility was documented using a pre-drafted report format that did not clearly identify the scope of the inspection was being finalized during this onsite review.

The Commission is unclear as to the rationale behind this assertion. The subject report clearly stated the scope of the inspection was to evaluate the licensee's compliance with the applicable Commission's rules/regulations and the conditions of the licensee's license related to the waste processing program. The inspection included a review of the Radiation Protection Program Audit, Internal and External Personnel Monitoring, Personnel Frisking, Respiratory Protection, Radiation Work Permits, Personnel Overexposure Incidents, Notification and Reports to Individual, Waste Management, Training, and Posting Requirements. In addition, a facility inspection was conducted which covered the Mixed Waste Treatment Facility and the waste storage areas.

Response 5:

Thank you for the comment. During the onsite review, the review team was provided with a draft inspection report for the 2013 inspection of the waste processing facility. This draft report uses a template that is completed prior to the onsite inspection and lists all the activities that should be reviewed during the inspection. The draft inspection report did not clearly state which activities were actually reviewed during the inspection. No changes to the report were made.

Comment 6, Section 3.3.3:

The Review Team also noted that the Commission has not yet developed comprehensive inspection procedures to support the overall LLRW inspection program. As listed above, the Review Team noted that the overall inspection report template is a general, pre-drafted, semi-

completed inspection report that does not clearly identify the scope of the inspection or documents all the appropriate health and safety issues. The review Team recommended that the Compliance Team, in coordination with the Radioactive Materials Section, develop detailed inspection procedures for LLRW inspections to provide feedback to the LLRW program and enhance the inspection program.

The Commission is considering adding detailed procedures to the existing inspection procedures which would enhance the LLRW inspection program. For the on-demand LLRW shipments, the Commission currently uses an inspection report in the form of a checklist which covers the requirements related to the receipt, acceptance, transfer and disposal of the waste. The report includes an inspection findings summary and photos.

Response 6:

Thank you for the comment. No changes were made to the report.

Comment 7, Section 3.3.3:

The review team noted that a routine increased controls (IC) inspection of the radioactive waste processor license occurred in January 2010; however, no subsequent routine IC inspections have been conducted of either the waste processing or disposal site license and the Review Team considered the routine IC inspection overdue.

There were no significant changes in IC procedures or activities at the facility up to the opening date of the LLRW disposal facility in April 2012; therefore an annual routine IC inspection was not performed. Prior to the receipt of the waste at the LLRW disposal site, the Commission conducted a pre-operational inspection which included the inspection of the security system. The Commission conducted an IC inspection at the LLRW facility at the end of May, 2014.

Response 7:

Thank you for the comment. The report has been revised to include the IC inspection performed in May 2014.

Comment 8, Section 3.3.3:

According to the draft report, supervisor accompaniments were conducted annually for all inspectors, with the exception of one inspector who received only one supervisor accompaniment during the review period.

To clarify, supervisor accompaniments of the inspectors were conducted but were not documented. The Commission will document all future supervisor accompaniments as appropriate.

Response 8:

Thank you for the comment. Based on the review team's discussions with the inspector who was accompanied by a supervisor only once during the review period, the review team

determined that this inspector was actually performing an accompaniment of another inspector when the supervisor was at the site. Therefore, this inspection would not qualify as an accompaniment for the inspector who was performing an accompaniment of another inspector. No changes were made to the report.

Comment 9, Section 3.4.1:

In Section 3.4.1 of the draft report, it states that only one inspector is trained to perform UIC permit inspections. The other inspector only conducts the radioactive materials inspections.

For clarification, the other inspector is being trained to perform UIC inspections and has conducted limited UIC permit inspections.

Response 9:

Thank you for the clarification. The review team did not see any UIC inspections that were performed by the other inspector. We agree with the actions being taken and would encourage full qualification so that all HQ inspectors can perform independent inspections of all aspects of a uranium recovery inspection. The report has been revised to include the additional information regarding the individual's training in UIC inspections.

Comment 10, Section 3.4.2:

According to Section 3.4.2 of the draft report, during the review period, the inspection staff missed 14 of 20 UIC permit inspections and 10 of 44 routine annual radioactive material license inspections. During discussions between the review team, Commission managers and uranium recovery inspectors, the Commission indicated that they had deferred inspections due to the higher than anticipated workload required in preparation for the start of operations at the LLRW disposal site in 2012. Based on information provided by the Commission, the Review Team determined that there were no currently overdue radiation safety inspections in the Uranium Mills program.

The Commission would like to clarify that the UIC program for Class I, III, IV, and V wells in the State of Texas is the program administered by the TCEQ and approved by EPA pursuant to Section 1422 of the Safe Drinking Water Act (see 40 CFR Section 147.200). Because TCEQ administers an EPA-approved UIC program pursuant to the Safety Drinking Water Act, TCEQ questions NRC's authority and role regarding its comment on the number of TCEQ-conducted UIC permit inspections. UIC permit inspections do not appear to be under NRC's purview under the Federal Safe Drinking Water Act or the Atomic Energy Act.

TCEQ's EPA-approved UIC program is not subject to requirements regarding the number of permit inspections conducted. TCEQ strives to conduct an inspection of each permitted Class I & III injection well facility annually. TCEQ will also respond and perform inspections based on submitted complaints. Due to staff limitations and priorities for inspecting other facilities, there have been times when TCEQ was not able to inspect each permitted Class III injection well facility annually. The EPA does review the TCEQ UIC program annually, including review of the permit inspection program, and finds each year that the TCEQ runs an acceptable program.

Therefore, the TCEQ respectfully request that all review and mention of the Class III UIC program be removed from the final NRC report.

Response 10:

Thank you for the comment. When Texas amended its Agreement with NRC to include 11e.(2) byproduct material (uranium milling), the State identified three State agencies that would be participating in the implementation of the uranium milling regulatory program in order to cover all the requirements. At the time the three agencies were the Health Department, the Texas Water Commission, and the Railroad Commission. The original relationships were documented through MOUs with the Health Department. The TCEQ is the successor agency that is responsible for the groundwater protection for both radiological and non-radiological hazards associated with uranium milling (which includes in situ mining or recovery). The NRC, in its review of the Texas Agreement State program, needs to review the program that is providing the groundwater protection for in situ recovery operations. If TCEQ has a program other than the UIC program that provides the groundwater protection for in situ recovery operations, then the review team will need to review this alternative groundwater protection program and the references to the UIC program can be removed from the report. The review teams understanding from previous reviews and the history of the program is that the UIC program is the only program addressing groundwater protection for in situ recovery operations in Texas.

Without the UIC program and its responsibility for groundwater protection at uranium in situ recovery sites, the Texas Agreement State program could not be found adequate to protect public health and safety for the uranium recovery program.

No changes to the report were made.

Comment 11, Section 3.4.2

The Commission's procedure requires that inspection findings are communicated to a licensee during the exit meeting at the end of the inspection. A written report is generated for each inspection and provided to the licensee only upon request. The Review Team noted that inspection reports were not reviewed by management within 30 days of the inspection, as specified in Sections 1.6 and 1.7 of the Commission's Radioactive Materials Compliance Investigation Guidance and in addition, allegedly several inspection reports could not be located.

The Commission agrees with the Review Team's findings regarding management review. This was due to the higher than anticipated workload required in preparation for the start of operations at the LLRW disposal site in 2012. The Commission will make a reasonable effort to adhere to a 30-day time frame. With regard to the missing reports, although the review team initially had difficulty locating the inspection reports in the file room. Based on further discussions with the Review Team, it is the Commission's understanding that the inspection reports in question were located and reviewed by the Review Team.

Response 11:

Thank you for the comment. The language on the missing reports has been removed from the report.

Comment 12, Section 3.4.3:

The draft report states in Section 3.4.3 that the Commission's radiation safety inspections were thorough and included operational and records reviews. Any violations were communicated by the inspector to the licensee during exit interviews. However, the Review Team noted that power failure procedures, environmental monitoring results, and groundwater reports are not reviewed as part of the inspection program.

To clarify and to be more accurate, depending on the scope of the inspection, the areas mentioned above are typically inspected/reviewed and documented during the routine UIC permit and/or Radioactive Material inspections. In addition, the permittee/licensee submits quarterly/semi-annual groundwater reports to the Commission for review and any findings are conveyed to the licensee. Furthermore, due to schedule conflicts between the two NRC Review Team members and unavailability to participate in more than a one-day inspection, the NRC Review Team was unavailable for a full routine inspection. During the accompaniment in February 2014, the inspectors performed an abbreviated facility inspection and followed up on items from the previous inspection due to time constraints. The limited scope of the inspection was discussed with the review team members and the Commission does not believe that comments related to the limited scope of the inspection are appropriate in the final report.

Response 12:

Thank you for the comment. NRC staff agrees that the inspection was limited in scope due to the one-day site visit. However, the comments are unrelated to the one day circumstances of the inspection. It was clear to the review team that the site had never been inspected for operator response to power failures or UIC groundwater monitoring even though it had been in operation for some time. The inspectors did not know that the site had experienced numerous power failures or how the operators responded to the power failures. The inspectors also had never performed a UIC inspection of the site for groundwater monitoring even though it has had 15 excursions. No change to the report was made.

Comment 13, Section 3.4.3:

According to the draft report, the Commission did not perform pre-operational inspections prior to startup of new facilities and has no equivalent guidance for inspection frequency or inspection report content of the groundwater compliance program to ensure health and safety are protected.

To clarify this statement, during the reporting period, there was only one new in-situ uranium recovery site. The Commission agrees with the Review Team's finding that a pre-operational inspection of this facility was not conducted by the Commission prior to start of production. A pre-operational test was conducted by the licensee in November 2010 and production started

that same month. The Commission conducted an inspection of this facility in March 2011. The Commission is considering adding detailed pre-operational procedures for new facilities to the existing inspection procedures to enhance the inspection program. To ensure health and safety, the Commission evaluates and verifies the licensee/permittee environmental compliance program through on-site inspections and/or review of the groundwater monitoring reports submitted by the permittee and the licensee to the Commission.

Response 13:

Thank you for the comment. No changes were made to the report.

Comment 14, Section 3.4.3:

The draft report states that the licensing and permitting staff, who have geohydrology and engineering technical expertise, does not routinely accompany the inspection staff who have health physics expertise during routine inspections.

Also in the draft report, it states that information on the conditions at the sites identified during inspections is not timely communicated to the licensing/permitting staff. The Review Team recommends that the Compliance Team, in coordination with the UIC Permits Section and the Uranium Section, develop detailed inspection procedures for uranium recovery inspections to provide feedback to the uranium recovery program and enhance the inspection program.

To clarify this assertion, it should be noted that the Compliance Team, prior to an inspection, notifies the licensing/permitting staff of their inspection plans and discuss any areas of concern that may pertain to a site that is being inspected. If needed, licensing and/or permitting staff will accompany the inspector during their inspection. With regard to this issue the Commission had followed up with the Review Team at the time of the IMPEP review and provided copies of correspondence documenting consistent communications about inspection findings between the Compliance Team and the licensing/permitting staff.

Response 14:

Thank you for the comment. During the onsite review, the review team interviewed the licensing staff who informed the review team that they were not routinely informed of site conditions or inspection results. Based on discussions with licensing staff, the review team determined that the site inspectors do not appear to have a practice of active routine communication with the licensing staff. Based on a review of the “Compliance History Report”, the review team noted that only violations were documented on the report and little to no information on site conditions or inspection results were documented. Therefore, the review team determined that a recommendation to improve feedback to the licensing team in a timely fashion and to have licensing staff routinely accompany inspectors to observe site conditions was warranted. No change to the report was made.

Comment 15, Section 3.4.4:

In Section 3.4.4 of the draft report, the Review Team discussed with the Commission the status of one license which was revoked in 2003 for nonpayment of fees. The groundwater at both sites has been fully restored but the surface contamination has not been cleaned up. A gamma survey was performed on both sites in 2012 which confirmed the sites are contaminated. According to the report, neither site is properly posted or secured based on discussions with Commission staff and observations of the site made by NRC staff. The report also states that the IMPEP review team discussed TCEQ's responsibilities with them.

The Commission is aware of its responsibility to protect the public health and safety at this site. It should be noted that signs had been posted during the last TCEQ review of the site, but that theft of the radiological signage has been an ongoing problem at this location. TCEQ is currently working on a path forward for this area.

Response 15:

Thank you for the comment. The report has been revised to include information on the theft of the radiological signage at this location.