

## **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.

Texas Commission on Environmental Quality

**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 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.

**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.