UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 E. LAMAR BLVD.
ARLINGTON, TX 76011-4511

April 12, 2016

Brent Wade, Deputy Director
Office of Waste
Texas Commission on Environmental Quality
P.O. Box 13087, MC 123
Austin, TX 78711-3087

Dear Mr. Wade,

A periodic meeting with members of your staff was held on February 11, 2016. The purpose of this meeting was to review and discuss the status of the Texas Agreement State Program. The scope of the meeting was limited to activities conducted by the Texas Commission on Environmental Quality. A separate meeting was held with the Texas Department of State Health Services on February 10, 2016. The U.S. Nuclear Regulatory Commission (NRC) was represented by Mark Shaffer, Duncan White and me.

I have completed and enclosed a general meeting summary, including any specific actions resulting from the discussions. A Management Review Board (MRB) meeting to discuss the outcome of the periodic meeting has been scheduled for June 16, 2016 at 1:00 pm (EDT). Call in information for the MRB will be provided in a separate transmission.

If you feel that our conclusions do not accurately summarize the meeting discussion, or have any additional remarks about the meeting in general, please contact me at (817) 200-1143 or via e-mail at Randy.Erickson@nrc.gov to discuss your concerns.

Sincerely,

/RA/

Randy Erickson
State Agreements Officer
Division of Nuclear Materials Safety

Enclosure:
Periodic Meeting Summary

cc w/encl: Charles W. Maguire, Director
Radioactive Materials Division

Kelly Cook, Director
Critical Infrastructure Division

AGREEMENT STATE PERIODIC MEETING SUMMARY FOR
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
DATE OF MEETING: FEBRUARY 11, 2016

U.S. Nuclear Regulatory Commission (NRC) Attendees	**Texas Commission on Environmental Quality Attendees**
Randy Erickson, State Agreements Officer, Region IV	Charles Maguire, Director, Radioactive Materials Division, Office of Waste
Mark Shaffer, Director, Division of Nuclear Materials Safety, Region IV	Kelly Cook, Director, Critical Infrastructure Division, Office of Compliance and Enforcement
Duncan White, Senior Health Physicist, NMSS	Bobby Janecka, Section Manager, Radioactive Materials Division, Radioactive Materials Licensing
	Michelle Havelka, Critical Infrastructure Division Homeland Security Coordinator
	Twenty-three additional TCEQ staff members

DISCUSSION:

The Texas Agreement State Program (the Program) is administered by two State agencies, the Texas Department of State Health Services (DSHS) and the Texas Commission on Environmental Quality (TCEQ). TCEQ is responsible for the oversight of low level radioactive waste disposal and uranium recovery activities under the Texas Agreement.

During the 2014 Integrated Materials Performance Evaluation Program (IMPEP) review of the Texas Program, the review team found the Program's performance satisfactory for all indictors reviewed. The review team did make three recommendations specific to TCEQ's program. These included developing and implementing a strategy to address staffing in the low-level radioactive waste and uranium recovery inspection areas; developing detailed inspection procedures for low level radioactive waste inspections to provide feedback to the low level radioactive waste program and enhance their inspection program; and, developing detailed inspection procedures for uranium recovery inspections to provide feedback to the uranium recovery program and enhance their inspection program.

The review team also recommended, and the Management Review Board (MRB) agreed, that the Texas Agreement State Program was adequate to protect public health and safety, was compatible with the NRC's program; and, that the next IMPEP review should take place in approximately 4 years.

The following report is limited to a summary of the February 11, 2016, Periodic Meeting held with TCEQ managers and staff. A separate report was generated for the February 10, 2016, Periodic Meeting held with DSHS.

TOPICS COVERED DURING THE MEETING INCLUDED:

Program Challenges

Management reported that one significant challenge to the program is dealing with staff turnover, primarily because of recent and expected future retirements. The unique and complex nature of the work they perform makes it difficult to find qualified individuals to replace those who leave. When they do hire replacements, there is an additional concern that in light of possible NRC reduction in funding for training that they will be further challenged in getting

those individuals trained. Lastly, they have concerns over the future viability of the uranium industry since that drives a large portion of their activities.

Feedback on NRC's Program

Management reported that they enjoy the working relationship they have developed with the NRC. They see the NRC as colleagues and believe that NRC views them the same way. Staff are heavily engaged with NRC at both the Commission and staff levels and they appreciate NRC's willingness to assist them with the development of complex policy decisions. TCEQ has also enjoyed participating when NRC Commissioners visit the Waste Control Specialists site.

Program Reorganizations

While the Critical Infrastructure Division has not reorganized since the last IMPEP review, they did transfer one of the two resident inspectors to the Radioactive Materials Division in June 2015. A new resident inspector was hired in October of 2015. In addition, one staff member was added to the Radioactive Materials Compliance Team in February 2015. This person will perform inspections and investigations for the Critical Infrastructure Division.

The Radioactive Materials Division was reorganized in October 2015. The Radioactive Materials Division is now composed of two Sections including the Radioactive Materials Section and Underground Injection Control Section. The Radioactive Materials Section is composed of two teams including the Radioactive Materials Licensing team and Uranium Licensing and Permitting team.

Program Budget/Funding

There have been no significant changes in budgeting for TCEQ since the 2014 IMPEP review.

Technical Staffing and Training (2014 IMPEP: Satisfactory)

The Low Level Radioactive Waste (LLRW) and Uranium Recovery programs are supported by the Critical Infrastructure Division of the Office of Compliance and Enforcement. The Radioactive Materials Division has two Sections including the Radioactive Materials Section and the Underground Injection Control Permits Section. The Radioactive Materials Section consists of the Radioactive Materials Licensing team with 6 staff members, and the Uranium Licensing and Permitting team with 7 staff members. The Radioactive Materials Section also works with multiple contractors to support its work. The Critical Infrastructure Division of the Office of Compliance and Enforcement inspection program consists of five inspectors, including a work leader and two LLRW resident inspectors.

Since the 2014 IMPEP review a total of 12 staff have left TCEQ for various reasons and they currently have two vacancies. The two vacancies are engineering positions, one on the Radioactive Materials licensing team and the other on the Uranium Licensing and Permitting team. Management noted that when those two engineering positions are filled, they believe they will have the staff necessary to meet their mission.

At the time of the 2014 IMPEP review, TCEQ did not have a documented training plan consistent with NRC's Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Materials and Environmental Management Programs." At the present time, both the Radioactive Materials Division and the Critical Infrastructure Division are working

together in developing a plan to implement IMC 1248. A discussion was held with management and staff to clarify the 24 hour continuing education requirement and the various ways that this requirement can be met.

Management explained that TCEQ Radioactive Materials Division and Critical Infrastructure Division staff are offered various courses from both NRC and EPA as well as on-line webinars and in house training opportunities. To meet the qualification requirements of IMC 1248, management has determined that a staff member's immediate supervisor determines training requirements depending on the staff's previous work experience and planned work activities; On-the-job training is provided to develop the required job-related knowledge and skills; additional refresher training is encouraged to maintain qualified status.

During the 2014 IMPEP review the review team was concerned with the workload of the Compliance Team inspectors who performed 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 was 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. Because of this finding, the review team recommended 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 Radioactive Materials Division is now working closely with both the LLRW and Uranium Recovery inspectors in the Critical Infrastructure Division of the Office of Compliance and Enforcement by having license reviewers accompany the inspectors on facility inspections. This enhances communication between divisions and the license reviewers can provide assistance with the inspection itself or with other activities such as groundwater sampling.

As mentioned previously in this report, since the 2014 IMPEP review, the Office of Compliance and Enforcement of the Critical Infrastructure Division has added a staff member to the inspection team to assist with the inspection program. In addition, one agency staff member has been designated as a liaison between the Critical Infrastructure Division and the Radioactive Materials Division to ensure that communication and consistency between the two divisions continues to improve.

Status of Materials Inspection Program (2014 IMPEP: Satisfactory)
Technical Quality of Inspections (2014 IMPEP: Satisfactory)

Management reported that since the 2014 IMPEP review they have conducted 21 radioactive materials and 5 Underground Injection Control inspections, of which none were conducted overdue. However at the time of the meeting they have three sites that are overdue for inspection. These include the following sites:

- Ascend Performance Materials-Chocolate Bayou Plant. This is a non-commercial waste burial site with an inspection frequency of every two years. Several attempts were made to conduct the inspection during October through December, 2015. However, due to the unavailability of the appropriate licensee personnel or other licensee priorities, this inspection has not yet been performed. It is anticipated that the inspection will occur during April 2016.

- South Texas Mining Venture-Hobson Site. This is a uranium processing site on standby status. While overdue by one month at the time of the meeting the inspection of this site was conducted on March 2, 2016.

- Rio Grande Resources-Panna Maria Uranium Mill and By-Product Disposal Site. This site is not in operation nor is it on standby status. Reclamation and closure of this site is completed and it is in post-monitoring status. Although it has been recorded as overdue by one month at the time of the meeting, the inspection was conducted on March 1, 2016. TCEQ noted that Manual Chapter 2801 titled "URANIUM MILL AND 11e (2) BYPRODUCT MATERIAL DISPOSAL SITE AND FACILITY INSPECTION PROGRAM", does not cover inspection frequency during post-monitoring.

There have been no significant changes in inspection activities since the last IMPEP review. Currently, all in-situ uranium mining sites are either on standby status due to the declining uranium market, or the groundwater restoration has been completed and they are in stability mode. Reclamation/closure of all the Uranium Mill and By-Product Disposal Sites are completed and they are in post-monitoring status.

Typically there are very few environmental issues and minimal worker exposure at a site in stability mode (i.e. mining and groundwater restoration have been completed), standby, or post-monitoring status. Therefore the Critical Infrastructure Division would like to explore with the NRC the possibility of increasing the inspection frequency at those uranium mining facilities that are in this status from the current one year to two years. The Commission would also like to obtain clarification regarding jurisdiction over the underground injection control program and inspection requirements, since this program is currently overseen by the U.S. Environmental Protection Agency.

Lastly, there have been no new facilities that have started operations since the 2014 IMPEP review, so no initial inspections have been required or performed.

During the 2014 IMPEP review, the review team noted that the Commission had basic inspection guidelines and template report forms for the onsite resident inspections and the overall LLRW inspections. They had not yet developed comprehensive inspection procedures to support the overall LLRW inspection program. The review team found that the inspection report template was a general, pre-drafted, semi-completed inspection report that did not clearly identify the scope of the inspection or document all the appropriate health and safety issues. Because of this finding, the review team recommended that the Compliance Team, in coordination with the Radioactive Materials Section, develop detailed inspection procedures for LLRW inspections and to provide feedback to the LLRW program and enhance the inspection program.

Since the last IMPEP review the Critical Infrastructure Division has significantly enhanced the LLRW inspection procedures. The LLRW inspection procedures have now been separated from the other inspection procedures. The LLRW inspection program has its own procedures with specific details related to the receipt and disposal of on demand waste shipments. In addition, this includes procedures for the overall aspects of the LLRW program reviewed during a routine inspection. The inspection procedures will now be a dynamic document with modifications or enhancements based on the operations and other factors that may prompt changes to the procedures.

The 2014 IMPEP review team also noted that the licensing and permitting staff with geohydrology and engineering technical expertise did not routinely accompany the health physics based inspection staff during routine inspections. The review team felt that a multidisciplinary inspection team would be able to conduct a more comprehensive technical inspection for the Uranium Recovery facilities. They further believed that feeding back compliance information to the licensing staff would help them to build a better license. Both the Underground Injection Control 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. The review team determined that the staff were conducting inspections that addressed 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 was not being timely communicated to the licensing/permitting staff. Because of this determination the review team recommended that the Compliance Team, in coordination with the Underground Injection Control 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.

Managers reported that the Radioactive Materials Division is now working closely with the LLRW and Uranium Recovery inspectors in the Office of Compliance and Enforcement by having Radioactive Materials Division license reviewers accompany the inspectors on facility inspections, as needed. This enhances communication between divisions and the license reviewers can provide assistance with the inspection itself or with other activities such as groundwater sampling. Going out into the field on inspections is now a part of the TCEQ performance appraisal system for the licensing and permitting staff.

As noted earlier in this report, since the 2014 IMPEP review, the Office of Compliance and Enforcement has added a staff member to the inspection team to assist with the inspection program. In addition, one agency staff member has now been designated as a liaison between Critical Infrastructure and Radioactive Materials Divisions to ensure communication and consistency between the two Divisions.

The 2014 IMPEP review team found that 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 Low Level Radioactive Waste facility. Management reported that since the 2014 IMPEP review, all supervisory accompaniments for the inspectors as well as the Work Leader have been completed for both 2014 and 2015. In addition, a new inspector accompaniment form was developed in December of 2015.

Managers added that a new, more streamlined process for management review has been put into place and inspection reports are now reviewed by management in a timely manner.

Technical Quality of Licensing Actions (2014 IMPEP: Satisfactory)

Following the 2014 IMPEP review TCEQ performed seven amendments to Waste Control Specialists license R04100. These included three administrative amendments, three minor amendments and one major amendment. They issued one administrative amendment to WCS license R05807 and one administrative amendment to NSSI license R01811. They also have one license renewal application in for the Ascend license RW0219.

There are currently 11 licenses in the Uranium Recovery and By-product Material (11.e (2)) Disposal program. Since the last IMPEP review, there were 3 major amendments, one minor amendment, and 9 administrative amendments completed.

Technical Quality of Incidents and Allegations (2014 IMPEP: Satisfactory)

Critical Infrastructure and Radioactive Materials Division procedures are in place for event reporting, including follow-up and closure information in NMED. No significant events have occurred since the last IMPEP review. All complaints, allegations, and incidents involving radioactive materials will be communicated between both the Radioactive Materials and the Critical Infrastructure Divisions. The two Divisions will coordinate any allegations, incidents, or event reporting to NMED. Any event that may require reporting to the NRC will be conducted in accordance with SA-300. No allegations were referred from NRC since the 2014 IMPEP review.

Regulations and Legislative Changes (2014 IMPEP: Satisfactory)

The Department is granted the legal authority to establish regulations 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 between the Texas Department of State Health Services and the Texas Commission on Environmental Quality. The following legislative changes affecting the Program have occurred since the last IMPEP review.

- Memorandum of Understanding Between the Texas Department of Health and the Texas Natural Resource Conservation Commission Regarding Radiation Control Functions, Amend Title 25 Texas Administrative Code §289.101, effective September 7, 2014.

- Project Number: 2014-031-336-WS amended 30 TAC §336.1310 by reducing the maximum disposal rates that a licensee may charge generators for disposal of low-level radioactive waste. This rulemaking is required under 30 TAC 336.1309(g) which requires the executive director to initiate expedited rulemaking to establish the rate by rule. This rulemaking became effective February 26, 2015.

- Project Number: 2013-056-037-WS. This rulemaking implemented Senate Bill 347, 83rd Legislature (2013) by amending 30 TAC Chapter 37.9045 and §37.9050 to reference the new environmental perpetual care account. This rulemaking became effective June 25, 2015.

- Project Number: 2015-012-336-WS amended §336.2; repealed §336.357, and added new §336.357 and §336.739. Rulemaking revised 30 TAC Chapter 336 concerning physical protection of radioactive material to ensure compatibility with federal regulations promulgated by the Nuclear Regulatory Commission (NRC) and implements Senate Bill 347, 83rd Texas Legislature, 2013, Regular Session, by adopting new Section 336.739, to provide for volume reduction of low-level radioactive waste. Rulemaking implemented the required changes in RATS 2013-1 and 2015-2. This rulemaking became effective December 31, 2015.

At the time of the 2014 IMPEP review the review team found that TCEQ had submitted four amendments overdue. They also found that at the time of the review that three other

amendments were currently overdue. At the time of the 2016 Periodic Meeting, TCEQ had three amendments overdue for adoption because TCEQ believed that they were compatible or that DSHS had the responsibility for these three amendments, so that no action was required. The Commission's equivalent regulations to 10 CFR Part 37 were implemented by License Condition on March 1, 2016. The Commission also adopted equivalent regulations on December 15, 2015, however the regulation package had received comments from NRC. They will be answering those comments in a future submission to NRC.

Information Exchange

Current State Initiatives

- The most notable activity that TCEQ is involved in is working through the licensing aspects of the purchase of Waste Control Specialists by Energy Solutions.
- There are also two uranium operational sites that are in the process of being purchased.

Current NRC Initiatives

NRC managers presented several current initiatives ongoing at NRC. These included:

- Project AIM 2020
- Rebaselining
- Management Changes
- Agreement State training
- New methods of training offered by NRC
- Part 35 Rulemaking
- Agreement State participation on working groups
- Status of the combined policy statements on adequacy and compatibility
- Greater than Class C waste
- The status of the Government Accountability Office license audit
- Web Based Licensing
- Wyoming and Vermont pursuing agreements

CONCLUSIONS:

The Texas Commission on Environmental Quality continues to be an effective and vital part of the overall Texas Agreement State program. There are presently two staff level vacancies. The Commission is effectively managing its licensing and inspection activities and is addressing the recommendations noted during the 2014 IMPEP review. They currently have three overdue regulation amendments.

NRC staff recommends that the next IMPEP review be conducted as scheduled in February 2018.