TEXAS Department of State Health Services

Department of State Health Services (DSHS) Third Quarter 2015 Program Report to the Texas Radiation Advisory Board (TRAB)

September 18, 2015

Radiation Safety Licensing Branch

Radioactive Material Licensing Group

- Solvay USA Inc. submitted a decommissioning plan for their rare earth processing facility in Freeport Texas. This will be a major decommissioning estimated to cost in excess of $10,000,000, and involves the removal of buildings, concrete pads, soil and sediment contaminated with low levels of uranium and thorium, and their progeny. There is no impact to the environment off-site. The decommissioning is expected to be completed in May 2017.

- There have been no new water treatment licenses or amendments this quarter.

- Research into the activation of parts of therapy accelerators is ongoing.

- There are presently 67 registered waste shippers and transporters. To date DSHS has billed $851,163.10 to the waste shippers sending low-level radioactive waste to the WCS compact disposal site in Andrews County, Texas.

Radiation Machine Source Group

- Representatives of The Food and Drug Administration (FDA), Division of Mammography Quality Standard Act (MQSA) conducted an annual audit of the Agency's Mammography Certification Program on August 4, 2015. Preliminary results indicate the Agency has adequately and appropriately fulfilled its responsibilities as an FDA-approved Certifying Agency.

Radiation Enforcement

- From June 2015 to August 2015, the Enforcement Unit issued 63 Orders against individuals and companies that were found to have violated the Texas Regulations for Control of Radiation (25 Texas Administrative Code §§289.201 – 302). These Orders have resulted in the assessment of $81,410.00 in administrative penalties. Of the 63 Orders issued, 20 were Revocation Orders of X-Ray and Laser registrations. Two of the Revocation Orders resulted from failing to comply with Default Orders (assessing administrative penalties) and 18 were issued as a result of failing to pay registration fees.

Radiation Policy, Standards, and Quality Assurance Group

- The proposed RAM2 (Part 37) rule packet was presented at the TRAB meeting on June 12, 2015, and approved with edits.

  §289.201 concerning general provisions for radioactive material
  §289.202 concerning standards for protection against radiation from radioactive materials
  §289.251 concerning exemptions, general licenses, and general license acknowledgements
  §289.252 concerning licensing of radioactive material
  §289.257 concerning packaging and transportation of radioactive material

  - The proposed rules were presented to the DSHS Council on September 9 & 10, 2015. We anticipated that the rules as amended would be approved to be posted in the *Texas Register* for a 30-day comment period. A public meeting will be scheduled during the comment period.

Radiation Inspection Branch

Environmental Monitoring Group

Incident Investigations

Follow up to report of cesium-137 contamination on April 15, 2015:

The licensee has completed surveys and remediation of all vehicles and residences. The Agency has completed its verification surveys and all vehicles and residences have been released for unrestricted use. None of the radiation worker employees' exposures exceeded any regulatory dose limits. Information from vehicle and residence surveys do not indicate any member of the public (non-radiation worker employees or any family members) would have received any significant exposure, but the licensee and DSHS are in the process of reviewing the data and will make a formal determination as to whether any public dose limits may have been exceeded. The

decontamination of the facility and grounds will be performed during the previously scheduled upcoming decommissioning process. The licensee is conducting site characterization for the development of the decommissioning plan that will be submitted to the Agency for approval prior to commencement. The licensee continues surveying and releasing product, equipment, and supplies to customers and for transfer to the licensee's other facilities. The licensee is also in the process of validating its inventory of sources and preparing the sources for disposal.

Follow up to another previous cesium-137 incident report:

The cesium-137 contamination found and reported on April 14, 2015 in a residential area of Houston has been remediated. The City of Houston contractor has completed removal of the contaminated soil, water and part of a water main. The waste has been delivered to WCS for disposal. The estimated cost of the remediation project is about 1.7 million dollars. 1.6 million dollars was for the removal and disposal of cesium-137 contaminated soil and water. Due to the unanticipated cost of the project, the City has requested reimbursement from the Radiation Perpetual Care Account. No identifiable radioactive source or device was recovered during the project. Because no source or device could be found, it was decided that there would be no attempt to open the waste drum containing the suspected remnants of the source capsule. DSHS has completed its survey and sampling of the remediated area and has provided the City of Houston with a letter concurring with their releasing the property for unrestricted use.

Third cesium-137 incident:

On May 27, 2015, the licensee reported to the Agency that while performing a routine survey of its source storage area, it discovered that a barium-137m generator, originally containing 50 millicuries of cesium-137, had leaked. The licensee investigated and found small amounts of the cesium had been tracked into its office area which was immediately remediated. Several company work trucks had small amounts of contamination with more contamination found in one work trailer and on some tools and equipment. All have been remediated. The licensee identified and surveyed nine employee residences: three had no contamination, five had small amounts (less than regulatory limits), and one had more distributed contamination (with some spots that exceeded regulatory limits). All residences have been remediated. All employees' personal vehicles were surveyed and no contamination was detected. The licensee had whole-body in-vivo counting performed on 16 employees—there was no internal radioactivity identified. Dosimetry badge reports indicate there were no external exposures exceeding regulatory limits. The room where the generator was stored has been restricted and is in the process of being decontaminated. The Agency will perform verification surveys of the office, residences, and vehicles, and continue its investigation.
The licensee's investigation as to the cause of the leak led to the revelation on August 21st that the generator may have begun leaking during work at a temporary job site in Tulsa, Oklahoma in October 2014, where the licensee was working under reciprocity. The generator was used in October, November, and December 2014 at the same location. On August 23rd, the licensee performed surveys at the job site and found extensive contamination in several areas where the generator was used. The licensee notified the Agency and the Oklahoma Department of Environmental Quality. The contamination in Oklahoma will be handled as a separate event by Oklahoma.

Emergency Planning

South Texas Project (STP)

STP will be conducting an outage this fall. Their next FEMA evaluated exercise is scheduled for July 13, 2016.

Comanche Peak Nuclear Power Plant (CPNPP)

- On June 10th 2015 DSHS, CPNPP, TDEM, and FEMA participated in FEMA Evaluated Hostile Action Based exercise (HAB). DSHS provided approximately 50 staff members to participate in the exercise along with HHSC, TCEQ and DPS Commercial Vehicle Enforcement Troopers. The exercise was designed to show reasonable assurance that the utility, state, and offsite organizations can protect the health and safety of the public. The state and local organizations demonstrated knowledge of the emergency plans and procedures and there proper implementation. The exercise was evaluated by FEMA Region VI and an After Action Report / Improvement Plan (AAR/IP) was developed. There were no Deficiencies, or Areas Requiring Corrective Action (ARCA). There was one Plan Issue identified during this exercise, and one ARCA from the prior exercise remains open.

- On August 19th, 2015 DSHS participated in a Squaw Creek tabletop exercise to discuss the prevention and further damage, if known, of possible dam failure. Also discussed were: Protection of the population, mitigation of actions used to reduce the loss of life and property damage. A proposal for a valid response for a dam failure and/or recovery of affected population of damaged property. Stated in the 30 TAC 299.61(h), this tabletop is the initial development of the five year plan for discussion, coordination and validation in response to a dam failure.

- On September 2nd, 2015 FEMA evaluated the Texas Health Cleburne Hospital for their required annual Medical Scenario (MS-1) exercise for CPNPP. The state participated as players in the Radiation Emergency Area (REA), and provided monitoring outside for the ambulance and drivers. Local emergency response staff and DSHS demonstrated the set-up of a Radiation Emergency Area (REA) and treatment of a contaminated injured patient. The exercise went well.

Waste Isolation Pilot Project (WIPP)

- DSHS WIPP staff provided briefings to local officials in nine jurisdictions regarding the Waste Isolation Pilot Plant. In addition, 20 of each radiological emergency response instrument sets were updated along the WIPP transportation route in Reeves, Tarrant and Dallas counties.

- During the month of June, three 8-hour First Responder Radiological Emergency Preparedness classes were provided to 46 emergency responders in Irving, Texas.

- In May, staff members staffed the WIPP display booth and provided WIPP related information to emergency first responders and emergency management officials at the 2015 Texas Emergency Management Conference in San Antonio, Texas. Approximately 500 plus individuals visited the display booth.

- The WIPP recovery program continues to make significant progress, the original target date of March 2016 for resuming waste emplacement operations is no longer viable due to a variety of unanticipated issues. A number of additional activities have been identified that need to be added to the project schedule, including safety related activities that are required to be completed prior to resumption of operation. Key issues impacting the recovery schedule include the need to address the findings and recommendations from the Accident Investigation Boards, implement the Department of Energy's more rigorous standards for site specific Documented Safety Analyses and to resolve problems with the contractor's oversight of the quality assurance processes for the manufacture and delivery of the Interim Ventilation System. Target date for resuming waste emplacement is late 2016.

- Local officials in Texas along the shipping corridor continue to be interested in the WIPP program and continue to request and support WIPP related training activities and exercises.

Pantex

- Four members from the DSHS Radiation Branch, plus one individual from the DSHS Media Office attended the Joint Information Center drill in Amarillo during the month of June. In addition, DSHS staff members continue to participate in the monthly notifications and communications testing activities with the Pantex site.

X-Ray Groups

- Two x-ray inspectors received new inspector training and are now independently inspecting on basic modality inspections.

- Seven x-ray inspectors received classroom training on higher risk modalities and are working to complete their hands-on inspection training with senior inspectors.

- The x-ray radiation measurement meters are being replaced for the x-ray and mammography inspectors. The new meters offer up to date technology and software applications.

- Over 4000 x-ray inspections were performed in Fiscal Year 2015.

Mammography and Remote Inspections Group

- 1,223 remote x-ray inspections have been issued for FY2015. Staff are working on 587 open remote inspections.

- All mammography inspections are being conducted timely. Only one, non-operating facility is past due for inspection.

- The on-site review part of the annual mammography FDA Certifying Body evaluation was completed in July 2015 in Austin. There are no indications of any inspection program deficiencies from the FDA.

Radioactive Materials (RAM) Inspections Group

- The Radioactive Materials Group is fully staffed with 14 inspectors located throughout the state; 10 fully trained, and 4 that have completed a substantial portion of their training

- We provided the Inspection Procedures course for approximately 22 of our Radiation Program staff. The NRC assisted in some of the presentations in addition to 10 of our Radiation Program staff presenting course topics. The training provided in Austin on July 27 – 31, 2015 is a core course requirement for inspector qualification.

- Our annual Staff Meeting is scheduled during the week of October 19 here in Austin. We will perform required radiation survey instrument calibrations, emergency response & sampling training, and training for our implementation of the NRC Part 37 Physical Protection of Category I & II Radioactive Material.