



Department of State Health Services (DSHS) Second Quarter 2016 Program Report to the Texas Radiation Advisory Board (TRAB)

September 23, 2016

Radiation Safety Licensing Branch

Radioactive Material Licensing Group

- Karl Von Ahn was hired as the new Radiation Licensing Group Manager and started on September 1st. He has spent the past year as a reviewer in the PSQA unit under Chuck Flynn. Prior to that he was with the State of Ohio Agreement State Program for 17 years. Under the Ohio program he was an SS&D reviewer, worked in the technical support section, industrial section, decommissioning section, and spent the last five years as supervisor of the medical licensing and inspection section.
- On September 6, 2016, the NRC held a Management Review Board meeting regarding the February 10 and 11 periodic meeting with DSHS and TCEQ, and a special review of the TCEQ program in April. The NRC did not have any unresolved questions or recommendations for the DSHS program.

Radiation Machine Source Group

- Representatives of The Food and Drug Administration (FDA), Division of Mammography Quality Standard Act (MQSA) conducted an annual performance evaluation of the State of Texas (STX) Mammography Accreditation Program for the reporting period of January through December 2015. FDA concluded that the STX has fulfilled its responsibility as an FDA approved Accreditation Body following their offsite review of files and review of policy and procedures, and phantom image review consistencies

Environmental Monitoring Group

Incident Investigations

- On April 21, 2016, The Agency was contacted by the Environmental Protection Agency in response to a notice it had received regarding excessive dose rates coming from a package in shipment. The package was being carried by Federal Express (FedEx) and was located at one of its facilities in Houston, Texas. The Agency contacted the radiation safety officer (RSO) for FedEx. He stated FedEx had been informed by Customs and Border Protection that a package at the FedEx facility was reading higher than expected. The package was a spent Iridium 192 source from a High Dose Rate Afterloader (HDR) that was being returned from a Manila, Philippines hospital to the manufacturer, Alpha Omega in Louisiana. FedEx contacted Alpha Omega who then dispatched a technician to the FedEx facility to secure the package. The Tech told DSHS investigators by phone that the source had been pulled from its shield and was lying on top of the shield inside the shipping package creating a dose rate of 41 mR/hr at a meter. FedEx is attempting to review video footage to determine where the source could have been pulled from the shield. It does not appear that the tampering occurred in Houston. The investigation into this event is on-going.
- On August 22, 2016, the Agency was contacted by Customs and Border Protection regarding a shipment of material stopped in Miami. The shipment, (1080 lbs. of niobium ore) originated in South America and was destined for a location in Houston, TX. Customs reported radiation readings of 2.5 millirem per hour at three feet. Investigation found that the material was ore being shipped to a broker in Houston for resale. The Houston customer hired a consultant to perform radiation surveys and analysis to determine whether licensing would be required. The analysis found that the percentage of source material exceeded exemption requirements for licensing. Because the material is NORM and is considered to be ore, the package was released and continued to its destination Houston. The broker may possess it under a general license under our NORM rules.

Emergency Planning

Weapons of Mass Destruction (WMD)

- Valley Public Health Radiological Workshop

On April 14, 2016 a workshop was conducted by DSHS Radiation Control Program's Emergency Planning staff for local and State public health agencies and hospitals in the DSHS Health Service Region (HSR) 11. Workshop participants included DSHS Central Office and HSR 11, Hidalgo County Health Department, city and county emergency management organization, a number of hospitals, and surrounding regional and county Public Health agencies. There were around 100 attendees. The workshop focused on public health and hospital response after a radiological dispersion device explosion in a public setting. Major areas of discussion included emergency public information and warning, mass care and responder safety and health.

South Texas Project (STP)

- The STP Federal Emergency Management Agency (FEMA) Evaluated Exercise was conducted on July 13, 2016. An After-Action Report (AAR) was published by FEMA on August 31, 2016 stating that based on the exercise results, the offsite radiological emergency response plans and preparedness for STP and the affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency. Demonstration of all 17 FEMA Radiological Emergency Preparedness (REP) Program Exercise Evaluation Criteria were successfully met. FEMA REP Exercise Evaluation Criteria can be found in NUREG-0654/FEMA REP Manual.

Comanche Peak (CP)

- On Thursday, March 10, 2016 Somervell County District Judge John E. Neill of the 18th District Court of the State of Texas issued a decision on his findings of Luminant Generation Company, LLC vs. Somervell County Appraisal District. "After much consideration, the Court finds in favor of Defendant Somervell Central Appraisal District and orders the fair market value of the subject property set at \$2,221,721,055.00," said Neill in his brief issued 23 days after the second day of the two day trial held in the Somervell County Courthouse Annex Feb. 15-16, 2016. Luminant is considering appeal.

- Comanche Peak will be having a FEMA evaluated MS-1 medical drill at the Lake Granbury Medical Center on October 11th, 2016 and a Cleburne Reception Center Drill on October 12th, 2016.
- Comanche Peak's next Plume Phase exercise will be in 2017. The Dress Rehearsal will be on July 12th, 2017 and the FEMA evaluated exercise will be on August 16th, 2017.

Waste Isolation Pilot Plant

- Workers at the Waste Isolation Pilot Plant (WIPP) are now well into the second month of Cold Operations (simulated runs) at the facility and while significant progress has been made, much remains to be accomplished in order to meet the December 2016 projected timeframe for restarting transuranic waste operations. Operational Readiness plans are currently pending review and are expected to be approved within the next few months.
- December 2016 continues to be the target date for the restarting of operations. Transuranic Waste currently being stored on-site in the bay area will be the first drums of waste to be transferred to the underground storage facility.
- Transuranic waste from the Los Alamos National Laboratory is temporarily being stored at the Waste Control Specialists (WCS) facility located in Andrews County. This waste has been identified as the first waste to be shipped to the WIPP facility after reopening. Officials at the WIPP facility anticipate to start receiving shipments from WCS in December 2016. Shipments from sites throughout the nation are expected to begin in mid-2017.
- Recently, a total of four Radiological Emergency Response Training classes were provided to a total of 23 first responders at Fire Departments in Canton and in Benbrook, Texas.
- Plans to conduct a full-scale WIPP Radiological Transportation exercise in Big Spring, Texas continue to remain on schedule for November 9, 2016.

Pantex

- The Department of Energy has approved the "Agreement in Principle" (AIP) contract for the federal contract years, 2017-2021. The contracts have an effective date of October 1, 2016 so there will be no break in service.

- A full participation drill was conducted by Pantex on September 24, 2016 in Amarillo. 40 members of the DSHS Radiation Branch participated in the exercise in various roles. A debriefing meeting was held after the drill and the compiled information will be used to create an after-action report. The target date for finalization of the after action report is the next AIP Quarterly Meeting in November.
- The Radiation Branch continues to participate, attend and support emergency exercises and drills as well as supporting environmental monitoring, sampling and radiological instrument maintenance and calibration.

Radiation Inspections Group

Radioactive Materials (RAM) Inspections Group

- The Radioactive Materials Group (Inspections) in cooperation with the Licensing Group, is monitoring the construction of a new unshielded pool irradiator in Fort Worth.
- Security inspection guides and policies have been updated to reflect the changes in Section 252(ii). This section was revised for NRC Part 37 rule compatibility. We began full enforcement of the revised rule 25 TAC 289.252(ii) on July 1, 2016.
- The Nuclear Regulatory Commission's (NRC) Management Review Board meeting for the Texas mid-year Integrated Materials Performance Evaluation Program (IMPEP) was held September 6, 2016. The program was deemed to be Satisfactory.
- The Radioactive Materials Group (Inspections) 2016 staff meeting is scheduled for October 4– 6, 2016.

X-Ray Inspections Group

- The X-ray Inspections Group recently returned to conducting unannounced inspections. In late August, a letter was sent to all facilities, excluding mammography, registered in Texas to use radiation machines (21,796 registrants) explaining this change. The letter also included a checklist to help registrants prepare for inspections.

- An X-Ray staff member is chairing a Task Force for Digital Imaging Quality Assurance/Quality Control for the Conference of Radiation Control Program Directors (CRCPD). CRCPD is a national professional advisory group composed of representatives from each state. The goals of the task force are:
 1. to work with manufacturers to standardize QA/QC protocols
 2. work with American Registry of Radiologic Technologists (ARRT) to strengthen knowledge of digital imaging acquisition systems and QA/QC through education and board exams.
 3. Write suggested state regulations for digital imaging QA/QC

- An X-Ray staff member is chairing a committee for Cutaneous Electronic Brachytherapy (CeBT) for CRCPD. The goals of the task force are:
 1. Develop guidance for state registration
 2. Develop guidance for state inspection

- Animage, a company in California has developed a hybrid x-ray machine for veterinary use. Considerations are being made for regulation/inspection of facilities using the machine. The machine has the capability to produce, static images, fluoroscopy and CT images. <http://www.animage.com/>

Mammography and Remote Inspections Group

- Tomosynthesis, also known as 3D mammography is still a very new and hot topic in mammography. Three major manufacturers, Hologic, Siemens and GE have all produced tomosynthesis capable machines. Tomosynthesis creates slice images of breast anatomy from a series of low dose radiographic images taken of the breast at various angles. These machines are responsible for a slight increase in total radiation dose for a mammogram, while they provide the ability to remove overlying tissue from view that sometimes obscures areas of clinical interest. The FDA and State face a challenge to regulate this new technology with regulations written prior to the emergence of the technology.

- In August, the American College of Radiology (ACR) released a new quality control (QC) manual that includes a universal quality control program for full field digital mammography units. Until now, facilities were required to adopt the QC program recommended by the manufacturer of their digital mammography unit. The ACR's full field digital mammography QC program has been approved by the FDA as an alternative standard and facilities may start using it in July 2017.

Radiation Enforcement

- From January – August 2016, the Enforcement Unit issued 340 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 \$314,212.00 in administrative penalties. Of the 340 Orders issued, 145 were Revocation Orders. All but two of the Revocation Orders resulted from failing to pay registration or licensing fees. The other two Revocation Orders were the result of Industrial Radiographers failing to respond to previous Orders and related correspondence.

Radiation Policy, Standards, and Quality Assurance Group

- No rules will be presented at the TRAB meeting on September 23, 2016.
- We recently opened Draft radioactive materials rules (known as our "RAM 2016/2017" packet). The packet includes:
 - §289.251 concerning exemptions, general licenses, and general license acknowledgements
 - §289.252 concerning licensing of radioactive material
 - §289.253 concerning radiation safety requirements for well logging service operations and tracer studies
 - §289.256 concerning medical and veterinary use of radioactive material
 - §289.257 concerning packaging and transportation of radioactive material
- We held an in-house staffing on August 31, 2016. We anticipate that these rules will be forwarded for approval as proposed rules by October 3, 2016, and will be presented to the TRAB as proposed rules at the Fourth Quarter 2016 meeting.