



TEXAS
Health and Human
Services

Texas Department of State
Health Services

**Department of State Health Services (DSHS) First Quarter 2018
Program Report to the Texas Radiation Advisory Board (TRAB)
Consumer Protection Division**

June 22, 2018

Business Filing and Verification Section

Radioactive Material Unit – Karl Von Ahn, Manager

- The Nuclear Regulatory Commission conducted a two week IMPEP review of both DSHS and TCEQ. The Management Review Board meeting of the IMPEP review was held on April 24, 2018. The final report was issued on May 22, 2018, and will be made publically available on the NRC web site at <https://scp.nrc.gov/reviews.html>.
- Licensing staff attended and also made presentations at the annual Radiation Control Program staff meeting and training on April 3-5, 2018.
- Licensing staff participated in the Pantex emergency response drill.
- Licensing staff participated in the Southwest Texas Project nuclear power plant drills held April 30-May 3, and June 11-14, 2018.

Radiation Surveillance Section-Radiation Unit

Radioactive Materials Inspection Group – Eric Skotak, Manager

The Radioactive Materials Group April 2018 Staff Meeting was attended by 32 Radiation Control Program staff members and provided training and discussion of many topics including the regulatory issues regarding the devices for delivery of therapy doses of Y-90 microspheres; the newly developed NorthStar Medical Radioisotopes device producing Tc-99m from molybdenum-

99; the sealed source & device evaluation process, public dose evaluations requiring accountability for neutron dose, and much more.

Mammography and Remote Inspections Group – Trae Windham, Manager

- The FDA EQUIP initiative has entered year two implementation in which violations are now being issued for deficiencies. A minimal number of violations on the EQUIP initiative have been issued to date, and the majority of facilities are successfully complying.
- The Mammography Group has had an additional inspector successfully complete a three phase qualifying process, and is currently fulfilling the final mentorship requirement of the MQSA certification process. This fills the formerly vacated MQSA inspector position in Houston, and brings the program closer to being fully staffed.
- The Remote Inspections Group has continued its efforts in inspecting out of state service companies currently holding a certificate of registration in the state of Texas. This effort will ensure that all entities coming into Texas to perform installations and services on x-ray equipment continue to comply with the current regulations, and maintain the safety of Texas citizens.
- All mammography and remote X-ray staff attended a staff meeting in April, 2018. This training consisted of updates to regulations, emergency preparedness training and inspection procedure training.

X-Ray Groups – Lisa Bruedigan and Joann Harthcock, Managers

- Two new x-ray inspectors began inspecting basic x-ray modalities in May, 2018. These inspectors will begin the next phase of training on inspecting fluoroscopy and CT units beginning in August, 2018.
- X-ray staff attended a staff meeting in April, 2018. Training consisted of updates to regulations, emergency preparedness training and inspection procedure training.
- The X-ray Group managers, Lisa Bruedigan and Joann Harthcock, attended the Conference of Radiation Control Program Director's annual meeting. Lisa Bruedigan presented posters titled "Inspection Issues: Have You Seen This?", "Computed Tomography Challenges in the United States" and "US Tracks Diagnostic X-ray Doses & Practices Through

Surveys of Facilities Nationwide". Lisa also provided a presentation on her attendance at the International Atomic Energy Agency's International Conference on Radiation Protection in Medicine, Achieving Change in Practice. Joann Harthcock presented a poster titled "Digital Imaging QA/QC – On the Move".

Environmental Monitoring Group – Bob Free, Manager

Incident Investigations:

I-9599 - Overexposure - TECHCORR USA Management LLC - Rosharon, Texas

On April 13, 2018, a Licensee reported an overexposure to a radiographer. Specifically, a badge reading of 6 rem was reported by the badge processor. The exposure was received on April 6, 2018 while using a QSA 880D camera with a 102.8 curie Iridium-192 source at a temporary job site. On April 27, 2018, the Agency conducted onsite interviews and determined that the radiographer repositioned the camera under some piping. The awkward position caused him to inadvertently put his hand on the ball-stop locking device and unlock the camera. The crank out cables and source tube were still attached. He moved the camera about 5 feet and held the camera for 15 seconds and then worked near the camera for 5 minutes. When he moved the camera the cranks inadvertently rotated causing the source to move 6-10 inches out of the camera. He didn't hear his rate meter alarm due to excessive noise in the building. The apparent root cause was poor placement of the camera with a source tube of inadequate length. Total whole body dose was 5875 mrem. The radiographer has been removed from further radiation duties this year. The company is conducting training with all workers and researching additional alarm systems for the shooting bay, better rate meter alarms, and reassessing source tube sizes to ensure the camera can be positioned to allow better access for repositioning. One violation was cited.

I - 9561 - Found/Lost Radioactive Material - B J Services LLC - Odessa, Texas

On April 13, 2018, the U.S. Customs and Border Protection (CBP) contacted the Agency after it discovered a Thermo Fisher Scientific Model 5192 portable density gauge, containing 200 millicuries of cesium-137, in the back of a pick-up truck as it was passing through the border crossing into Mexico at Tornillo, Texas. The individual, while

working road construction, had seen the "piece of pipe" for approximately five weeks on the side of the highway outside Monahans, Texas, and picked it up to sell as scrap metal. CBP took possession of the gauge. The Agency notified the licensee and it retrieved the gauge the next morning. Leak testing was performed and results were negative. The licensee's corporate radiation safety officer (CRSO)'s investigation determined that between August 8-13, 2017, the gauge had been lost off of one of its trucks during transport from a well site to the licensee's facility along the route where the gauge was found. The CRSO also discovered that utilization logs had not been maintained; the gauge was recorded as being in storage during multiple physical inventories between August 2017 and April 2018 when it could not have been, based on other company records; the gauge was not present during routine leak testing in February 2018 yet it was still not reported missing; finally, during March 2018's inventory the site RSO was unable to locate the gauge and deleted it from the inventory without collecting proper transfer or disposal documentation. There was no exposure to any member of the public that could be identified that exceeded regulatory limits. Corrective actions included: terminating the employment of the site RSO; improved and re-deployed radiation awareness training to include additional information of source security and movement; authorized users are completing the licensee's re-certification training; increased audits; validation of densitometer movements with vehicle movements with real-time notifications to RSO; photo-required inventories; and, design/implementation of mounting specifically for gauges on the licensee's trailers. Multiple violations were cited.

I - 9562 - Fire Damage - Valero Refinery - Texas City, Texas

On April 20, 2018, the consultant for a company called to inform the Agency that a fire had damaged part of the refinery. The fire happened, April 19, 2018 around 5 pm. The radiation safety officer has been informed and the two are preparing an assessment of the damage. There are 19 gauges in the location of the fire. The fire was located in the allocation unit where phase fractions are allocated into different hydrocarbon groups for refinement. On May 22, 2018 the remaining two gauges were reported as assessed for damage. The gauges were leak tested and resulted in <0.0001 microcurie or less for each device. The devices were Ronan, RLL1, 0.9 mCi, Cs-137 with serial numbers of 202267A and 202267B. None of the gauges were damaged or leaking. No violations were cited.

I – 9565/I-9566 - Stolen Radioactive Material - Alpha Testing Inc. – Houston/Arlington, Texas

The licensee had two moisture/density gauges stolen in the same weekend. Both contained 40 millicuries of americium-241; one contained 8 millicuries of while the other contained 10 millicuries of cesium-137.

On April 28, 2018, the Agency was notified of the theft of one gauge in Houston the previous night. The technician had taken the gauge to his apartment rather than back to the licensee's facility because he needed it early the next morning. He took the gauge out of its transport case and placed it in the cab of the pickup connected to the charger. During the night the vehicle's window was broken and the gauge stolen. The gauge has not been recovered.

On April 29, 2018, the Agency was notified of the theft of the gauge in Arlington the previous night. The technician had taken the gauge to his residence rather than back to the licensee's facility. He left it chained in the pickup bed with the pickup parked in the driveway. The next morning, he found the two chains had been cut and the gauge stolen.

On May 2, 2018, an individual contacted the Agency to report he had a moisture/density gauge that had been given to him by a friend who had found it in a storage unit. The Agency took possession of the gauge and returned it to the licensee. The licensee's technicians failed to properly store the gauges. Corrective actions focus on re-training all of the licensee's technicians responsible for gauges. Violations cited.

I - 9568 - Bomb Threat Against Licensee - Team Industrial Services Inc. - Beaumont, Texas

On May 4, 2018, the Agency was notified by the licensee that on May 4, 2018, at 0927 hours, one of their managers had received a phone call from an individual who made a bomb threat against the licensee's offices in Beaumont, Texas. The licensee contacted local law enforcement (LLE) who then contacted the Federal Bureau of Investigation (FBI). The fire department also responded to the site. The building was evacuated and the FBI, LLE, bomb squad, Fire Marshall, and the licensee's radiation safety officer inspected the building and the areas around the building. No explosive device was found. The facility was released at 1029 hours. No violations were cited.

South Texas Project:

- DSHS will conduct a two-day exercise on June 12 & 13, 2018. The exercise will be evaluated by the Federal Emergency Management Agency and involve participation by Matagorda and surrounding

counties affected by the scenario driven events. The day one scenario will be dedicated to emergency response activities related to the airborne radioactive plume. On day two, a tabletop discussion and environmental sampling activities will be conducted to demonstrate the county and State capabilities for assessing conditions from radioactive particulate deposition and impacts on food products, water and farm raised crops and products as well as decisions related to recovery, relocation of affected populations and return of evacuated populations. Federal agencies involved in the recovery/ingestion phase of a nuclear power plant event will be present to provide support with their assets.

Comanche Peak:

- DSHS Radiological Response Team members will participate in a Joint Information Center drill with Comanche Peak and local government staff assigned to public information.

Waste Isolation Pilot Plant:

- From January to May, 2018, 18 transuranic waste shipments from Oak Ridge National Laboratory in Tennessee were received at the Waste Isolation Pilot Plant.

March 2018, DSHS personnel attended a three-day (shifts) Waste Isolation Pilot Plant Transportation Exercise (WIPPTREX) in Jackson, MS. The exercise was hosted by the Mississippi Emergency Management Agency (MEMA).

- May 2018, DSHS received 20 portable Ludlum survey/frisker type meters to replace aging Civil Defense radiation detectors loaned to 1st responder organizations along the I-20 transportation corridor.
- In April 2018, two DSHS Staff members attended the National Radiological Emergency Preparedness conference in Renton, WA. The conference was attended by approximately 350 people.
- In late April, early May, WIPP staff participated in the South Texas Project "dress rehearsal" drill in advance of the FEMA evaluated "Ingestion Pathway" exercise in June.
- In May 2018, three Radiological First Responder classes were provided for the Midland Fire Department. 59 students successfully completed the course.

Pantex:

- 38 DSHS employees traveled to Amarillo to participate in the Pantex Full Participation Exercise held on April 17, 2018. DSHS participation is sponsored by the Agreement in Principle (AIP) grant from the U.S. Department of Energy. The AIP is an agreement with DSHS, Texas Department of Emergency Management (TDEM), Carson County Office of Emergency Management, Armstrong County Office of Emergency Management, and Amarillo Area Office of Emergency Management.
- DSHS representatives attended the Quarterly AIP Meeting held at the Texas Division of Emergency Management Conference in San Antonio, May 17, 2018.
- Environmental samples (soil, water and vegetation) from the area around the Pantex plant were taken and were sent for analysis in April. These samples are taken to satisfy requirements in the AIP grant from the Department of Energy.

Compliance Section**Environmental Unit – Alyson Henry**

From March 2018 – May 2018, the Compliance Section issued 104 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 \$303,965.00 in administrative penalties. Six X-ray registrations and one laser registration were revoked as a result of failing to terminate or timely notify the Department of changes that would render the information contained in the certificate of registration inaccurate. These facilities are typically no longer in business.

In April, an Administrative Law Judge (ALJ) at the State Office of Administrative Hearings (SOAH) ruled in the Department's favor with a radioactive material license application denial case. In the Proposal for Decision (PFD), the ALJ ruled that the Department may deny the applicant's license. The next step of the administrative process is that the PFD will go to the Department's Commissioner for review and further action.

Policy, Standards, and Quality Assurance Section

Radiation Unit – Chuck Flynn, Manager

- The following proposed radioactive materials rules were presented at the TRAB meeting on February 23, 2018.

The proposed radioactive materials rules 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

- The TRAB approved the rules at the February 23, 2018, meeting with an exception regarding §289.252(i).
 - The proposed rules were presented at the May 24, 2018, Health and Human Services Council meeting, and approved for posting as proposed rules in the *Texas Register* for a 30-day public comment period.
 - A statement was sent to TRAB members from John Hageman on May 31, 2018, stating his previous concerns had been addressed and suggesting that the TRAB now support all of the proposed regulatory changes that were presented for discussion at the February 23, 2018, meeting regarding this rule packet. A vote will be made during the June 22, 2018, TRAB meeting.
- The following proposed x-ray rule will be presented at the TRAB meeting on June 22, 2018.

The proposed x-ray rule packet includes:

§289.232 concerning radiation control regulations for dental radiation machines

- The draft rule was reviewed by legal counsel, posted via our govdelivery email system, and emailed to TRAB members for a comment period. Several comments along with questions and concerns were received and addressed by staff.

- The proposed rule has been presented to our Office of General Counsel for their review prior to forwarding as an official packet through appropriate channels in addition to being presented to TRAB members.

