



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

February 27, 2015

**Radiation Safety Licensing Branch**

**Radioactive Material Licensing Group**

- The City of Galveston approved a Special Use Permit to allow the US ARMY barge Sturgis to be decommissioned in Galveston. The barge is scheduled to be towed to Galveston in March. The city also has a proposed zoning ordinance to prohibit the use of radioactive material in all zones. We are monitoring the progress of this proposed change as it could affect UTMB, Texas A&M Galveston, radiographers and other users who work on the island.
- The cities of Eden and San Angelo have had water treatment systems added to the WRT license. There have been no new licensing requests from public water systems in the past quarter.
- There are presently 62 registered waste shippers and transporters. To date, DSHS has billed \$692,328.70 to the waste shippers sending low-level radioactive waste to the WCS compact disposal site in Andrews County, Texas.

**Radiation Machine Source Group**

- The Radiation Machine Group is reviewing the application for a new proton therapy center. Texas Oncology, McKesson Specialty Health and Baylor Health are collaborating to build the Texas Center for Proton Therapy in the Dallas/Fort Worth Area.

**Radiation Enforcement**

- During the fourth quarter of Calendar Year 2014 (October 2014 – December 2014), the Enforcement Unit issued 61 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 \$44,500.00 in administrative penalties. For January 2015, 63 Orders were issued resulting in the

assessment of \$58,825.00 in administrative penalties. Of the 63 Orders, 44 were Revocation Orders. All but one of these revocations was the result of failure to pay registration/license fees. The other Revocation Order was a result of failure to comply with a Default Order to pay \$4,000.00 in administrative penalties.

### **Radiation Policy, Standards, and Quality Assurance Group**

- No rules will be presented at the TRAB meeting on February 27, 2015.
- Status update of the following rules presented at the TRAB meeting on January 31, 2014.

§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

§289.253 concerning radiation safety requirements for well logging service operations and tracer studies

§289.255 concerning radiation safety requirements and licensing and registration procedures for industrial radiography

§289.256 concerning medical and veterinary use of radioactive material

§289.257 concerning packaging and transportation of radioactive material.

- The proposed packet for these rules (known as our "RAM1 Combo" packet) was presented and approved by the DSHS Council on May 22, 2014. Late in October, the adoption packet was forwarded to the DSHS Office of General Counsel (OGC) for final approval. OGC made a few additional changes related to grammatical, typographical, and rule reference errors. Other OGC comments and suggestions will be addressed in the RAM2 (Part 37) rule packet. Wording in §289.257 was revised for consistency with Health and Safety Code, §401.307(a) relating to the perpetual care account for radiation. Pending final approval by the authorities, including the HHSC Executive Commissioner, we anticipate the effective date of the adopted rules to be on or prior to March 6, 2015.

- Status update on our Draft radioactive materials rules (known as our "RAM2 (Part 37)" packet).

§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

- We received numerous comments for Draft 1 from staff and the public. Draft 2 was posted on our website and a GovDelivery email notice was sent on January 26, 2015, for a 30-day comment period. As we received numerous comments and suggested changes on the RAM1 (Combo) rule packet from our new attorney, we will be reviewing and

incorporating most of those comments into the RAM2 (Part 37) rule packet. As a result, a third draft will be sent out for public comment. We anticipate that these rules will be presented to the TRAB as proposed rules at the Second Quarter 2015 meeting and to the DSHS Council on September 10, 2015.

## **Radiation Inspection Branch**

### **Environmental Monitoring Group**

#### **Incident Investigations**

- On November 15, 2014, the Agency received a phone call from a Customs and Border Patrol (CBP) agent who stated a vehicle at the El Paso, Texas, entry point from Mexico had caused their radiation monitor to alarm. He stated they had found that a pair of red coveralls, two ceramic cups, and the liner of the vehicle's trunk were contaminated. The radionuclide was identified as scandium-46. The Agency instructed him to remove the material and isolate the vehicle. An Agency inspector conducted radiological surveys at the location on November 17, 2014. No readings above background in the vehicle or on the material removed from the vehicle were identified. The vehicle's owner was also surveyed and no readings above background were found on him. The car was released, but the material removed by CBP was taken to the Agency's regional office for additional surveys. These surveys did not locate any radioactive material. On the evening of November 18, 2014, the Agency received a call from CBP stating the same individual was returning through a different border crossing from Mexico and had again set off the alarm. The Agency's inspector responded to the site and found a small particle in the floor of the vehicle's trunk that was reading greater than 600 microrem/hr. The inspector removed the particle from the trunk using a tape press. The inspector surveyed the vehicle and no additional radioactivity was detected. The radionuclide was identified as scandium-46. The inspector took the particle to the Agency's regional office. The driver and all the material previously removed from the vehicle were released. The vehicle's owner stated he worked for a couple of weeks for a fracking company and had been at multiple well sites. Scandium-46 is often used on fracking locations as a tracer to identify successful penetration of the formations being fractured. The Agency was not able to identify a location where the radioactive material may have originated.

On December 4, 2014, the Agency received a complaint of radiation exposure to members of the public from a gamma imaging device used to scan rail cars at the United States border. Railroad personnel had concerns of radiation exposure and harmful effects of the exposure. The case was researched and found that the cobalt 60 source used for scanning railcars was being used while railway workers were occupying the train's engine. Customs provided information to the railroad company to demonstrate that the

scans did not begin until the engine passed the scanning location. The amount of exposure train crews could receive is calculated to be far less than the public dose limit. Estimated exposures are below .25 millirem / hr. for crews in the engine. Information was provided to the complainant of dose and exposure limits. In addition, the case was referred to the Nuclear Regulatory Commission since this was an NRC licensed facility.

- On December 30, 2014, the Agency was notified by the licensee that a Humboldt model 5001EZ gauge containing a 40 millicurie americium-241/beryllium source and a 10 millicurie cesium-137 source was stolen out of the back of a company pickup truck. The licensee reported its technician had parked the truck at a movie theater and entered the theater to be with family. The gauge was unattended for one hour and forty-five minutes. When the technician returned to the truck he found the chains securing the gauge to the truck were cut and the gauge and locks were missing. In an effort to locate the gauge, an ad was placed in a San Antonio publication requesting the purchase a Moisture Density Gauge. On January 19, 2015, an individual searching near a river in San Antonio for used items to sell or recycle found the gauge. He saw the ad called the inspector. The inspector told him the gauge was stolen and convinced the individual to return the gauge to the licensee. Based on interviews with the individual, exposure to the public was minimal. The gauge was inspected and placed back in service. To prevent recurrence, the licensee is reviewing its procedures and evaluating equipment for securing its gauges. No violations were cited.

## **Emergency Planning**

### **South Texas Project (STP)**

The STP Graded Exercise was conducted on November 5, 2014 in Bay City, Texas. The scenario involved a Hostile Action-Based event that occurred after normal working hours (4:00AM-9:30AM). DSHS provided 40 players to participate in the exercise along with 1 HHSC employee, 3 TCEQ personnel and 6 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 exercise was evaluated by FEMA Region VI. The After Action Report / Improvement Plan (AAR/IP) was published on February 5, 2015. The state and local organizations demonstrated knowledge of the emergency plans and procedures and properly implemented them. There were no Deficiencies. One Planning Issue was reported for the Matagorda and National Weather Service to clarify plans that initiate timely broadcasting of the Emergency Alert System.

- On February 18, 2015 FEMA will be evaluating Matagorda General Hospital for their required annual Medical Scenario (MS-1) exercise for STP. The state will be participating as a controller. Local emergency response staff and STP will be

demonstrating the set-up of a Radiation Emergency Area (REA) and treatment of a contaminated injured patient.

### **Comanche Peak Nuclear Power Plant (CPNPP)**

- On December 10th, 2014 DSHS, Texas Division of Emergency Management, Hood and Somervell Counties, FEMA and the NRC began discussions for participation in a HAB Initial Planning Meeting with Offsite Response Organizations (ORO).
- On February 24th, 2015 DSHS provided Radiation Safety Officer training at Comanche Peak to the OROs.
- On February 25th, 2015 DSHS, CPNPP, FEMA, TDEM, and Hood and Somervell Counties participated in a table top exercise in preparation for the upcoming HAB exercise.
- DSHS, CPNPP, TDEM, and FEMA will continue to coordinate in the planning process in anticipation of the upcoming FEMA Evaluated HAB to be held on June 10th, 2015.

### **Waste Isolation Pilot Project (WIPP)**

- DSHS WIPP staff provided briefings to local officials in twelve jurisdictions regarding the Waste Isolation Pilot Plant in November, December and January. In addition, radiological emergency response instrumentation was updated along the WIPP transportation route in Palo Pinto, Taylor, Mitchell, Howard and in Tarrant counties.
- During the month of December, four 8-hour First Responder Radiological Emergency Preparedness classes were provided to 61 emergency responders in Palo Pinto and in Tarrant counties.
- Department of Energy (DOE) staff members at the WIPP facility continue to move forward in the recovery phase resulting from the February 14, 2014 incident. Photographic work in support of the Accident Investigation Board has been completed in Room 7, Panel 7. Employees completed video mapping of all waste stacks and packages in Room 7 using a specially designed and manufactured 90-foot composite boom equipped with high resolution photographic equipment. This will allow operators to examine waste containers from floor to ceiling and from wall to wall and will therefore help accelerate the recovery efforts. Spring of 2016 continues to be the target date for WIPP to start receiving shipments again.
- On January 15, engineers at WIPP discovered that a portion of the ceiling approximately 8 ft. X 8 ft. X 24 inches in the Panel 3 access drift had fallen in a restricted access area. The roof fall was discovered during routine ground control and bulkhead inspections

conducted by WIPP staff. Access to this area has been restricted since November 2014 due to ground control concerns, and no WIPP personnel were present at the time of the fall. The event highlights the need to continue prioritizing roof bolting and ground control in both the contaminated and uncontaminated areas of the WIPP underground facility in order to ensure safety. This area was originally scheduled to be re-bolted during the annual outage in February 2014. However, due to the February 14, incident, bolting was not performed. WIPP inspections conducted in November 2014 identified seven areas in the underground facility where access was restricted due to significant bolt loss. Roof bolting resumed in Mid-November of 2014. Engineers have indicated that the area where the roof fall occurred can be re-bolted and recovered.

- DSHS/WIPP staff continues to schedule briefings for local officials and training to first responders during February, March and April.

### **Radioactive Materials (RAM) Inspections Group**

- The Inspection Unit Radioactive Materials Group is fully staffed with 10 fully trained inspectors and 4 currently in training.
- We exceeded the standard set by the NRC for performing Reciprocity inspections. For 2014 we inspected 39% of all companies coming into Texas to perform work with radioactive material. The standard is 20%.

### **X-Ray Groups**

- Three new X-ray Inspectors started with the program this quarter. They have completed initial classroom training and are accompanying senior inspectors for inspection training.
- X-ray Inspections staff meeting will take place in June 2015. Topics will include meter and Equipment Performance Evaluation training.

### **Mammography and Remote Inspections Group**

- 417 remote inspections have been issued for FY2015. Staff are working on 546 open remote inspections.
- The open Remote Inspector position has been posted and applicant screening is in progress.
- All mammography inspections are being conducted timely, none are past due.
- The open mammography inspector position in Houston has been filled.

- The FDA MQSA Inspector Certification Course began January 19. The new inspector in Houston and one staff member from PSQA, who will ultimately be the Reviewer for mammography inspections, are enrolled in the course. This training is expected to be completed by June, 2015.