

**First Quarter 2010 Program Reports
to the
Texas Radiation Advisory Board
February 6, 2010**

Department of State Health Services (DSHS)

General Program Information

Beginning January 20, 2010, the Department implemented a hiring freeze. This includes all current vacancies in the radiation control program as well as new vacancies created by the Exceptional Item and the Laser Hair Removal Bill.

The U.S. Nuclear Regulatory Commission will be conducting its periodic audit of the radioactive materials program during the week of February 22. The audit, formally called the Integrated Materials Performance Evaluation Program (IMPEP), reviews five common performance indicators (technical staffing and training; status of materials inspection program; technical quality of inspections; technical quality of licensing actions; and technical quality of incident and allegation activities) as well as two non-common performance indicators (compatibility requirements and sealed source and device evaluation program).

Radiation Safety Licensing Branch

Radioactive Material Licensing Group

- Licensing Group is preparing to implement a new policy to be used for authorizing industrial radiographer trainers. The new process will make for more efficient use of internal resources and has been received positively by licensees.
- Licensing Group is planning for future changes to the way certain Generally Licensed Devices are licensed. The exact impact is not known at this time but, we are confident that this change will bring an increase in licensing workload.
- National Source Tracking System has been in use since January 31, 2009. The group is in the process of completing the first source database reconciliation.
- Licensing Group continues to prepare for the February 2010 IMPEP program review.
- Licensing Group currently has a Medical and Academic Licensing Program license reviewer position vacant.

Radiation Machine Source Group

- The Radiation Machine Source Group staff continues to prepare for the implementation of the Laser Hair Removal (LHR) Registration Program. Currently, the department is in the rulemaking process and anticipates the adoption of these rules by June 2010.
- Environmental specialist III position for the LHR program is still in the auditing process. This position is one of five reviewer positions allocated the LHR program. The administrative assistant for the LHR position has been filled. This position will assist with

developing policy and procedures, documents, letters, and will perform various other functions for the program.

Radiation Policy, Standards, and Quality Assurance Group (PSQA)

- PSQA has filled the new health physicist I position that will have responsibilities associated with the new LHR program.
- PSQA staff members continue to be heavily involved in the department's efforts to implement HB449 concerning laser hair removal. It is anticipated that the proposed rule will be published for a 30-day comment period on February 26, 2010.
- PSQA staff members have directing efforts towards the compilations of data and materials for the IMPEP review to be conducted February 22–26, 2010. Chris Myers compiled the information from all radiation control program units and prepared the report.
- PSQA staff members are currently drafting rules to implement new fluoro and CT initiatives in current rule and to develop new rules for electronic brachytherapy.

Radiation Inspection Branch

Radioactive Materials (RAM) Inspections Group

- An inspector has been hired for Region 5, Beaumont. She is currently in training and is expected to become an independent inspector by early summer. She will be completing U.S. Nuclear Regulatory Commission (NRC) sponsored training as well as on-the-job training. On-the-job training consists mainly of accompanying and observing senior inspectors and then being observed by senior inspectors as she performs radioactive materials inspections.
- The RAM inspector responsible for statewide inspection support gained authorization as an independent inspector January 1. This authorization leaves the program with only one position in training, the Beaumont inspector noted previously. Currently there are no vacant RAM inspector positions.
- NRC inspection frequencies are being met for licensee inspections. Data is being gathered to assist the NRC in the review of the Texas program which is scheduled for the end of February. Inspection data indicates that the inspection program is meeting the review criteria at this time.

X-ray Inspections Group

- **Staffing and Training:** The X-Ray Inspections Group is now fully staffed after filling a vacancy for an x-ray inspector in Austin on February 1, 2010. Presently, we have one inspector working out of the Houston office who is still in training.
- **Laser Hair Removal:** Since passage of House Bill 449 and the drafting of laser rules, the Group is taking steps to implement a routine program for the inspection of laser hair removal facilities. We have hired our first inspector for the program and will begin training the inspector during February. The Group manager and trainer recently attended formal training on lasers.
- **Equipment:** New radiation detection equipment for the x-ray and mammography inspectors is on order. The new Unfors Xi units will replace the existing MDH 1015's and the RadCal

9010s, some of which have been in use by the Department since 1983. Funding for this equipment was appropriated by the Legislature in the Department's Regulatory Services exceptional item.

- **Computed Tomography (CT) Mailout:** The X-Ray Group coordinated a mass mailout to all of our CT registrants, licensed medical physicists, and interested parties. Working with our Registration, Remote Inspections, and PSQA groups, an informational memo advising of the significant health concern associated with CT brain perfusion studies was prepared and sent out during December. Included with the memo was a position statement issued by the Conference of Radiation Control Program Directors, Inc., (CRCPD) emphasizing the use of safe and effective CT protocols. The information was placed on our Web site at <http://www.dshs.state.tx.us/radiation/ct.shtm>

The mailout was to ensure that all CT facilities in the state of Texas are aware of the issue and are taking steps to ensure their patients are receiving quality exams at the lowest possible radiation exposure. The U.S. Food and Drug Administration (FDA) is conducting an ongoing investigation into cases of excess radiation during CT brain perfusion scans. The current investigation has revealed over 250 cases at two separate facilities, involving two different manufactures of CT equipment in the state of California. The FDA has also received reports of possible excess radiation from CT scans conducted in other states. At this time, none have been reported in Texas.

Environmental Monitoring Group

- **Incident Investigation:**
 - On September 25, 2009, the Agency received a phone call from an individual who stated that she was being exposed to radiation and excessive heat directed at her house by two individuals in her neighborhood. She stated that two girls were responsible for directing radiation at her which would cause her appearance to disappear. She stated that the wiring in her home's attic has been altered and is now unsafe, as reported to her by an electrician. She stated that the electrician told her that her house was wired to burn. She said that the girls had opened her attic from the outside and installed two devices that they could remotely turn on and off a radiation field whenever they wanted.

She also stated that a nuclear blast had occurred a few blocks from her home at 4:00 a.m. a few weeks ago which dissolved her jaw, face, and neck. She stated that her jaw was reduced to less than 1 inch. She also stated that she lost four inches in height shortly (within minutes) after being exposed to radiation directed at her. She also stated that the military had a secret base in her area and was pointing a laser at her home and exposing her to the radiation.

On October 2, 2009, the individual was provided a thermoluminescent dosimeter for a period of 48 days. The dosimeter reading after the 48 days was 8.4 millirem. The individual was informed that the level of exposure recorded on the badge did not pose any radiological risk to her. She asked if she could be provided with a radon test kit. The kit was ordered and delivered to her house. The case has been closed.

- On October 21, 2009, at 5:35 p.m., the Agency received a telephone call from the Radiation Safety Officer (RSO) for the University of Texas. The RSO stated that a package had arrived at the University of Texas facility in Port Aransas, Texas, and was found to have removable contamination on the outside of the package. The package was shipped as excepted and contained vials of Sulfur-35 and did not appear to be damaged. The vials that contained the radioactive material were packed in dry ice and were still frozen when the package was opened. Swipes taken on the outside of the package, as part of the arrival survey, indicated contamination of 10,000 disintegrations per minute (dpm). Contamination levels on the vials in the package were 1,600 dpm. The contamination level on the lead pig shielding the vials was 600 dpm. Removable contamination on the inside of the package was between 1000-2000 dpm. All contamination levels are reported as per swipe, but the RSO was unsure of the areas that were swiped. All samples were counted on a liquid scintillation counter. No contamination was detected on personnel involved at the receiving facility. Then RSO was not convinced that the contamination came from the package because none of the vials appeared damaged, and the highest contamination levels were located on the outside of the package.

The samples were left in a dark storage location and recounted the next day. All samples were reading at or near background. It was determined that the elevated counts in the sample container were a result of chemical contamination resulting in phosphorescence.

- **Emergency Response (Drills):** Comanche Peak Nuclear Power Plant (CPNPP)
 - A medical drill was successfully completed on December 3, 2009, at Texas Health Cleburne Hospital and included new procedures being incorporated to their response plans.
 - A tour of CPNPP was held on January 13, 2010, that included the Texas Division of Emergency Management Regional Liaison Officers and the new DPS Captains from Garland and Hurst who will be providing commercial vehicle and law enforcement support for DSHS Field Teams and CPNPP Security.
 - Unit one experienced a transformer malfunction and on January 20, 2010, was at zero power output. CPNPP is presently replacing the transformer and predict to be at full power by Friday afternoon, January 22, 2010.
 - CPNPP will be having a Combined Functional on September 22, 2010, that will involve minimal participation for the Department of State Health Services (DSHS). An MS-1 drill at the Lake Granbury Medical Center and Reception Center drill in Cleburne will be conducted in FY 2010 — exact dates to be determined.
- **South Texas Project (STP)**
 - As of December 1, 2009, a new Emergency Operations Facility (EOF) has been activated. The new facility is located in Bay City. An alternate EOF is no longer required since the Primary EOF is located outside the 10-mile Emergency Planning Zone (EPZ). DSHS staff that would normally respond to the EOF in the event of an emergency toured the facility in November and will be participating in exercises at the new facility in July, September, and October of this year.

- STP wants to change the current alert radios within the 10-mile EPZ with National Oceanic and Atmospheric Administration (NOAA) weather radios. With the new radios, STP can send out a list of codes that can be programmed into the NOAA weather radio to only allow alerts dealing with STP. STP submitted a Prompt Notification System (PNS) request to the Federal Emergency Management Agency (FEMA) (through TDEM) and did not receive approval on this request. FEMA has requested additional information and has recommended a different type of radio that has been “FEMA-approved.”
- **Siren upgrade:** STP is in the process of upgrading the siren system to a battery backup siren system. The goal is to have the brand new system in place by June 1, 2010.
- **Exelon**
 - The Combined License (COL) Application for the Victoria County Station has been withdrawn. DSHS has been informed the company intends to pursue an Early Site Permit. FEMA still intends to submit a letter of reasonable assurance to the Nuclear Regulatory Commission (NRC) sometime at the beginning of 2010. None of this information has been added to NRC’s Web site, which tracks existing and anticipated new applications.

Mammography Inspections Group

- The Mammography Inspections Group took a hit on personnel this period. One remote inspector and the administrative assistant assigned to the remote inspections took new jobs. Interviews for both positions have been scheduled.
- Remote Inspector Daniel Moody took a promotion into the X-Ray Inspection Group. Arrangements have been made with Helen Watkins, X-Ray Inspection Group Manager, for Daniel to continue working the remote inspections until a replacement is trained.
- No mammography inspections are past due. 159 mammography inspections have been completed for FY10 and we are on track to complete all inspections by the end of the year.
- X-Ray Inspector Julio Torres, based in Harlingen, completed Mammography Quality Standards Act (MQSA) Inspector Certification Training on January 14, 2010, and will begin performing all MQSA Inspections in the Rio Grande Valley.
- 726 remote inspections have been issued for FY10. 466 of those inspections have been completed and closed. The program is currently waiting on responses from the remaining 260 registrants.

Texas Commission on Environmental Quality

Low-Level Radioactive Waste (LLRW) Disposal

- On September 10, 2009, the executive director of the Texas Commission on Environmental Quality (TCEQ) signed the final license that authorizes the near-surface disposal of Class A, B and C low-level radioactive waste from the Texas Compact and federal facility mixed low-level radioactive waste from the federal government. Pre-construction licensed conditions will have to be completed and the executive director’s written approval given before site construction can begin. TCEQ staff met with the representatives of utility waste generators to discuss the rate application package, which will establish fees for the LLRW Compact

facility. A meeting with Waste Control Specialists, LLC (WCS) to discuss the rate application package is also scheduled.

By-Product Material Disposal

- In November 2009, WCS completed disposal emplacement of 3,776 Silo 1 & 2 Fernald Waste Canisters into the WCS by-product waste disposal facility. Disposal at the facility is currently limited to Silo 1 & 2 Fernald Waste Canisters. WCS is continuing to provide environmental monitoring data including the following: groundwater level and constituent measurements; ambient gamma measurement; measurement of constituents in soil; measurement of constituents in vegetation; the results of erosion studies; and other site-specific reports.

Uranium Mining

- South Texas Mining Venture LLP's La Palangana *in situ* uranium license was issued January 14, 2010. There are three pending new uranium license applications, RGR Hobson Project, Uranium Energy Corp (UEC) Goliad Project, and the Signal Equities Brevard Project. Underground Injection Control (UIC) permit applications are pending for UEC and Signal Equities. Technical review for the Signal Equities project has just begun, while the technical reviews for the other two are on-going. New owners (UEC) have purchased the physical holdings of the Everest Exploration operation under R03626 and have applied for a name change to reflect the new ownership. TCEQ continues to monitor reclamation activities at Everest Exploration's sub-sites and COGEMA's sub-sites. TCEQ is scheduled to go to trial on the IEC reclamation matter on January 25. Staff members are continuing to work on groundwater and settlement issues at the three Title II impoundment sites.

Waste Processing and Storage

- WCS (R04971) and NSSI (R01811) are both currently under review for license renewal.

Buried Waste

- TCEQ continues to work on closing the historical buried radioactive waste sites that exist under TCEQ jurisdiction in Texas.

Memorandum of Understanding (MOU)

- TCEQ's work with the Railroad Commission of Texas on amendment to the MOU between the two agencies is moving forward. Amended MOU language is expected to be considered for proposal at the end of March 2010.

Railroad Commission (RRC) of Texas

- Staff is drafting amendments to the MOU between the RRC and the TCEQ concerning Radioactive Materials. The MOU amendments:

- Include identification of equipment used in exploration, production or disposal operations that contains or is contaminated with oil and gas NORM waste.
- Include the disposal of radioactive tracer materials.

Update since November 2009 Program Report: The agencies hope to propose the amendments in the third quarter of the Fiscal Year 2010.

- Staff is drafting a new MOU between the RRC and the DSHS to:
 - Implement and coordinate the requirements of the agencies in their licensing and permitting programs and clarify each agency's jurisdiction over radioactive materials and radioactive NORM wastes associated with oil and gas production.

Update since November 2009 Program Report: No activity

- Surface Mining and Reclamation Division, Uranium Exploration
 - The proposed repeal of existing rules and proposed adoption of several new rules, relating to Uranium Exploration and Surface Mining, under Title 16, Chapter 11, were published in the *Texas Register* on October 26, 2007. The comment period ended on November 26, 2007. The rules were automatically withdrawn in May 2008. Staff revised the draft proposed rules, which were posted on the Commission's Web site for informal comment. RRC held an informal meeting at RRC headquarters in Room 1-100 of the William B. Travis Building at 1701 N. Congress Ave., on Tuesday, December 9, 2008, at 1:30 p.m., to provide an opportunity to discuss and provide informal comments on the draft proposed rules. The rules were considered at conference on June 30, 2009. The Commission unanimously approved revisions to the rules and directed staff to go forward with the proposal.
 - On October 22, 2009, the Railroad Commission approved publication in the *Texas Register* of proposals to repeal existing regulations at 16 Tex Admin Code §§11.131-11.139, relating to uranium exploration, and adopt corresponding new rules to address House Bill 3837. The proposed rules can be found at <http://www.rrc.state.tx.us/rules/proposed.php>

Update since November 2009 Program Report: The comment period ended on December 7, 2009. Staff is reviewing the comments received.