



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

**January 20, 2023
Radiation Section**

Licensing and Registration Activities

License Type	Companies	Sites
X-Ray Registrations	17578	22192
Laser	3522	4194

RAM Licensing actions August 1 – October 31, 2022				
	New	Renewal	Amendment	Termination
General License Acknowledgment	5	0	50	9
RAM	4	29	357	10
Waste Shipper/Transporter	0	11	0	0
RAM Reciprocity	4	7	3	0
Sealed Source and Device	0	0	5	0

Industrial Radiographer Certification	
Application for Exam	251
Trainee Application	271
Renewal Application	121
Non-Texas Radiographer	226

Rulemaking

The program continues with internal meetings on the following rules in preparation for upcoming rulemaking:

Radioactive Materials (ensuring compatibility with NRC RATS)

- §289.201 General Provisions for Radioactive Material
- §289.202 Standards for Protection Against Radiation from Radioactive Material
- §289.253 Radiation Safety Requirements for Well Logging Service Operations and Tracer Studies
- §289.255 Radiation Safety Requirements and Licensing and Registration Procedures for Industrial Radiography

- §289.256 Medical and Veterinary Use of Radioactive Material
- §289.257 Packaging and Transportation of Radioactive Material
- §289.258 Licensing and Radiation Safety Requirements for Irradiators.

X-ray

- §289.229 Radiation Safety Requirements for Accelerators, Therapeutic Radiation Machines, Simulators, and Electronic Brachytherapy Devices

Laser

- §289.301 Registration and Radiation Safety Requirements for Lasers and Intense-Pulsed Light Devices

Compliance

- Fiscal Year Status
 - FY2022
 - 817 RAM Inspection Report Reviewed, 106 NOVs (13%)
 - 5745 X-Ray Inspection Reports Reviewed, 1776 NOVs (31%)
 - 1167 Remote Inspection Reports Reviewed, 926 Responded (79%), 612 NOVs (52%)
 - 90 Laser Inspection Reports Reviewed, 59 NOVs (65%)
 - 668 Mammography, 144 NOVs (21%)

Technical Staff Vacancies

Position	Location	Anticipated Fill Date	Notes
Mammography Inspector	El Paso	June 2024	Wait to train the new X-ray Inspector
Mammography Inspector	Arlington	June 2023	Training current X-ray Inspector
X-ray Inspector	El Paso	September 2022	Position Filled
X-ray Inspector	Tyler	December 2022	Position Filled
X-ray Inspector/Trainer	Statewide	October 2022	Position Filled internally
X-ray QA Reviewer	Austin	September 2022	Position Filled
RAM Inspector	Arlington	Perpetual posting	2 positions filled
RAM Inspector	Houston	Perpetual Posting	Position filled
RAM Inspector / Trainer	Austin	Perpetual Posting	Reposted – prior offer declined
RAM License Reviewer	Austin	October 2022	
Incident Investigator	Statewide	October 2022	

Staff Training

- Region 9/10 X-ray inspector position has been filled. The inspector is currently completing the first portion of X-ray inspection training.
- One RAM licensing staff member and one RAM inspector attended NRC-sponsored training during this reporting period.

- October 4-6, 2022, the two Pantex Liaison/Inspectors attended the Ludlum meter calibration training. These staff members have now completed calibration of twenty-eight radiation detection devices.
- On November 2, 2022, the Radiation Section had an in-house staff training day.
- On November 3-4, the Radiation section employees attended the Texas Radiation Regulatory Conference, which included radiation staff and guest presentations.

Compliance Activities

August 2022 to October 2022:

- Orders: 156
- Administrative Penalties: \$248,825.00
- Revocations:
 - 22 X-ray registrations
 - 1 Laser registrations

Radioactive Materials Inspection Activities

- The Branch is updating inspection procedures for compatibility with recently revised Nuclear Regulatory Commission (NRC) inspection procedures. The NRC is currently revising Materials inspection procedures. The first batch of revisions involves 10 of their procedures. They have now organized the procedures into Risk-based modules.

Emergency Response Activities

South Texas Project Nuclear Power Plant

- July 20, 2022, Evaluated Exercise with 35 staff members participating. An additional evaluated exercise at Palacios Reception Center was conducted on September 15, 2022.
- FEMA's preliminary evaluation and final evaluations of each offsite response organization has indicated no planning issues or findings from the exercise.

Comanche Peak Nuclear Power Plant

- July 27, 2022, Evaluated Exercise was postponed due to wildfires within the 10-mile emergency planning zone around Comanche Peak. No offsite response capabilities were impacted; however, the decision to delay the exercise was made to provide some relief to local response organizations combating the wildfires in the area.
- September 21, 2022, Rescheduled Evaluated Exercise with 40 staff members participating. FEMA has asked for re-evaluation and training with Somervell County scheduled for Jan 11, 2023
- September 22, 2022, Lake Granbury Medical Center, Evaluated Exercise, FEMA's evaluation has indicated no planning issues or findings.

Arkansas Nuclear One power plant exercise

Two staff members attended the exercise and served as controllers as part of the Southern Mutual Radiological Assistance Program.

Waste Isolation Pilot Plant (WIPP)

- WIPP has continued to have quarterly meetings.
- There have been 16 WIPP shipments thru the State of Texas.
- Meter exchanges were done with the cities of Gladewater, Canton, Lindale, and Pecos.
- Meter exchanges were done with Smith and Reeves County EOCs.
- WIPP training was provided in Reeves County.

Pantex/Agreement In Principle (AIP)

The two local DSHS staff members participated in the small local November Pantex Exercise. Staff members were present to support the Carson and Armstrong county EOC's, and able to share the initial NARAC plume model sent from Austin support with the county and regional partners/participants.

A quarterly AIP task III meeting was attended by DSHS staff in November.

The annual AIP task II meeting was attended by DSHS staff in November.

Emergency Preparedness and Response

July 11-13, 2022, staff assisted the National Association of State Boating Law Administrators (NASBLA) with training for the Harris County Sheriff's office and Houston Police Department for their Small Vessel Radiation Nuclear Detection (SVRND) Class.

Preventive Radiological Nuclear Detection (PRND)

The Securing the Cities (STC) program is a competitive grant issued by the Department of Homeland Security- Countering Weapons of Mass Destruction Office to cities containing large populations and substantial critical infrastructure of a national interest. The grant provides equipment, training, and planning support to develop a robust regional program aimed at the detection and interdiction of illicit radiological and nuclear material. The U.S. Homeland Security has authorized the Houston STC program to expand statewide. A two day kick off meeting occurred between the STC program and most of the state's Bomb Squads. All Bomb Squads have been issued two Handheld Radioisotope Identification Devices (RIIDs) and a radiation detection Backpack. All teams will receive training on the instruments in 2023. The next expansion will be to equip law enforcement statewide including DPS troopers with portable radiation detectors to expand the Preventative Radiation Nuclear Detection (PRND) mission.

Staff Activities

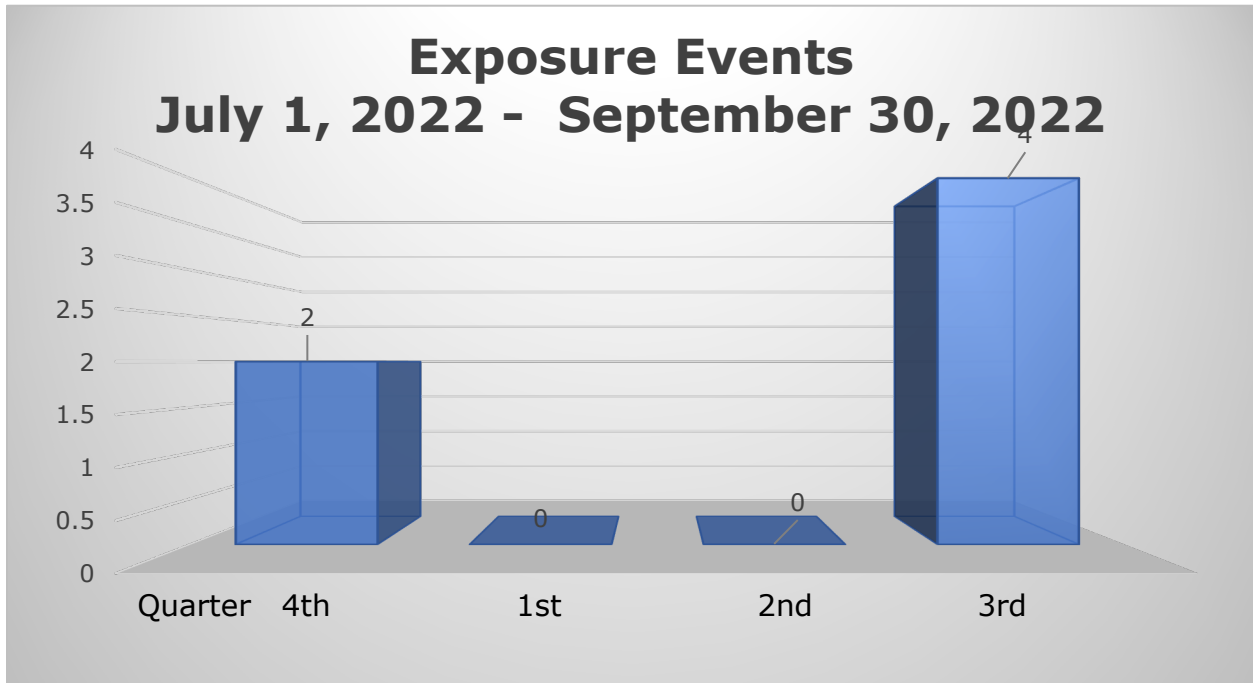
- October 2022 - One staff member per request from the DOE Office of

Radiological Security (ORS), presented a Texas Mobile Source Security presentation to the Spanish Government Radiation Regulatory Agency and Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNe) Program.

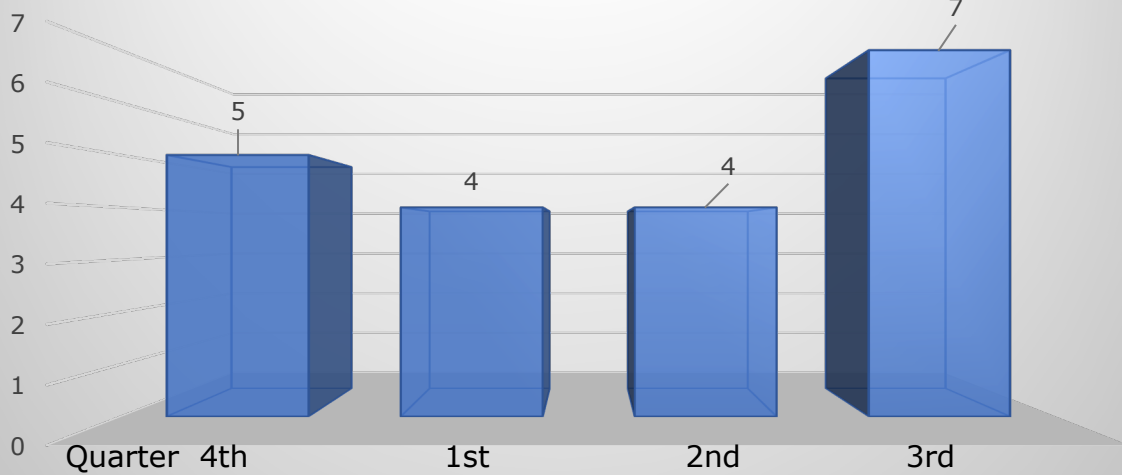
- August 2022 - Organization of Agreement States Annual Meeting, Fort Worth, Texas. Twenty one staff members attended. Topics related to the National Materials Program included material event reporting, revisions to the inspection manual and procedures, category three transfers, fusion energy, staffing & training, various medical use licensing actions, transportation packaging, waste management partnership, special nuclear material accountability, and generally licensed devices in the metal recycling stream.

Incident Investigations

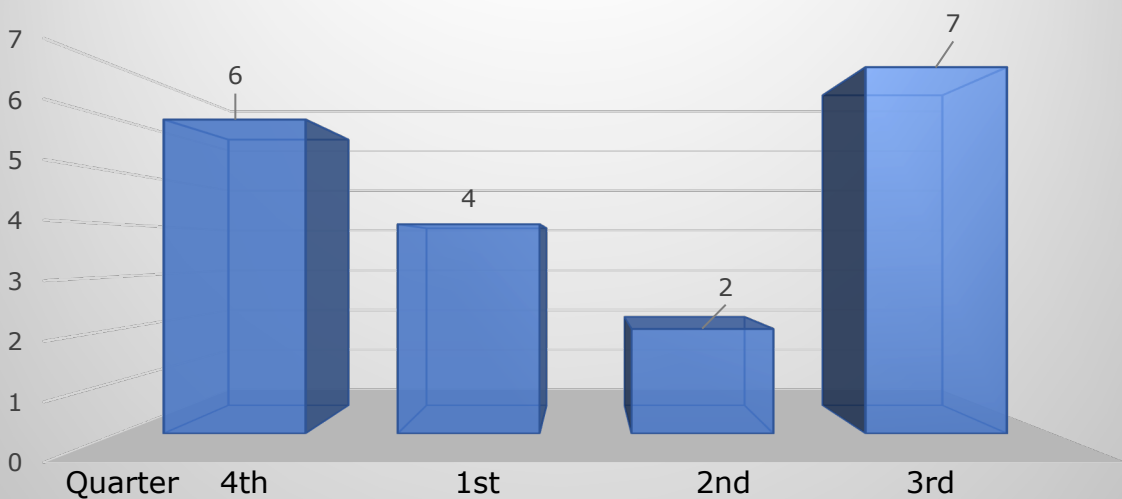
The graphs below reflect the numbers and categories of incidents received during this reporting period.

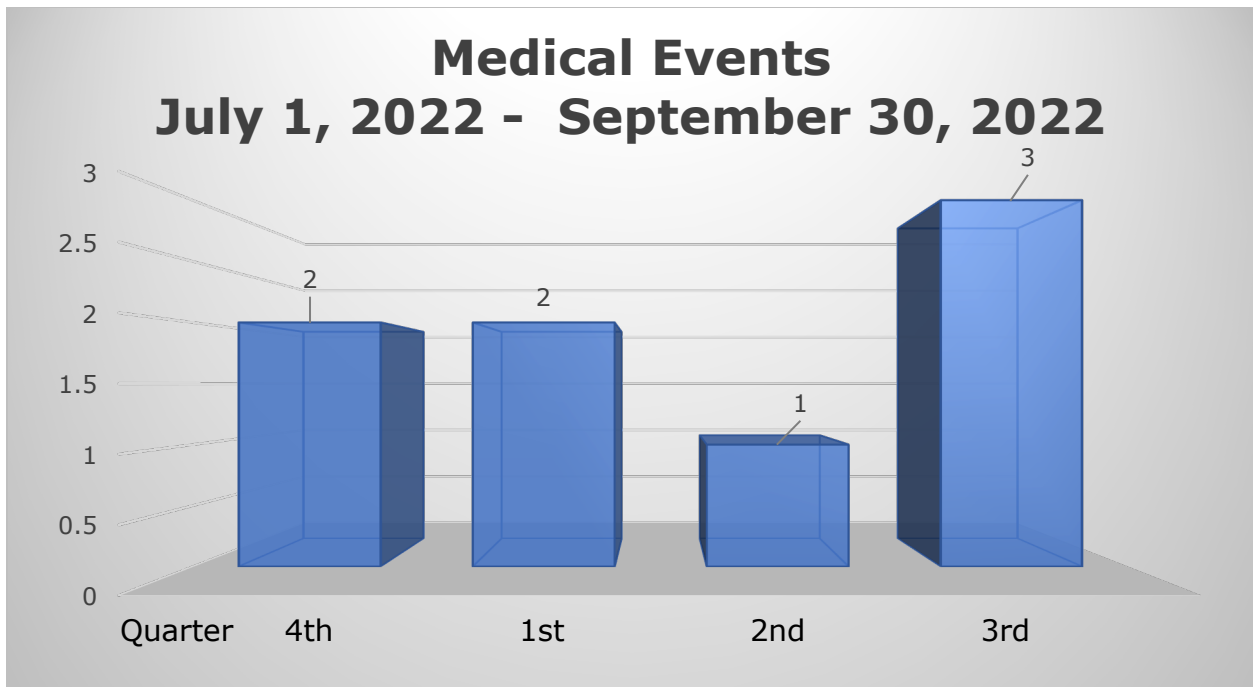


Equipment Events July 1, 2022 - September 30, 2022



Lost/Stolen/Missing Events July 1, 2022 - September 30, 2022





Medical Event Summaries:

September 2022 - On September 9, 2022, the Agency was notified by the registrant that the wrong treatment plan had been used on a patient. Patient A was brought into the treatment room by one of two on-treat therapists. A second therapist, located at the treatment console outside of the treatment room, loaded the plan for patient B. The timeout process that is in place to verify patient identity was not properly followed and patient A was imaged and treated with patient B's plan. Due to the similarities in the anatomy and anatomical treatment area of the two patients no indications were evident that the wrong patient was on the table. The error involved only one of 44 scheduled fractions. The patient and physician were notified of the error. The registrant does not believe the patient will experience any adverse effects due to the error. The patient's treatment plan was changed to consider the fraction received. The registrant has modified several of its procedure to prevent the error in the future. No violations were cited.

On September 27, 2022, this Agency was notified by a registrant of a medical incident wherein a patient was given another patient's treatment plan. The treatment was with a Varian 21EX 10 MeV accelerator and occurred on the previous day, September 26, at around 5:30 pm. The registrant reports that the two therapists involved failed to follow the timeout procedure that would have indicated they had the wrong treatment plan loaded for the given patient. One therapist brought the patient into the room while the other loaded the plan. The registrant has changed the treatment plan requiring digital verifications in the patient's record before treatment can occur. The two therapists have also been retrained. No violation cited.