



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

**January 31, 2025  
Radiation Section**

**Licensing and Registration Activities**

<b>License Type</b>	<b>Companies</b>	<b>Sites</b>
X-Ray Registrations	18663	23104
Laser	4152	4987

<b>Registration Completed Actions September 2024 – November 2024</b>				
	<b>New</b>	<b>Renewal</b>	<b>Amendment</b>	<b>Termination</b>
X-Ray	704	195	1143	428
Laser	286	24	110	62
<b>Total</b>	<b>2,952</b>	<b>990</b>	<b>1253</b>	<b>490</b>

<b>RAM Licensing actions October 2024 – December 2024</b>				
	<b>New</b>	<b>Renewal</b>	<b>Amendment</b>	<b>Termination</b>
General License Acknowledgment	0	0	4	2
RAM	14	24	288	13
Waste Shipper/Transporter	2	6	1	0
RAM Reciprocity	5	6	2	0
Sealed Source and Device	0	0	1	0
<b>TOTAL</b>	<b>21</b>	<b>36</b>	<b>296</b>	<b>15</b>

<b>Industrial Radiographer Certification</b>	
Application for Exam	396
Trainee Application	225
Renewal Application	53
Non-Texas Radiographer	155
<b>TOTAL</b>	<b>829</b>

**Rulemaking**

23R011 - Radioactive Materials

Revision of 25 TAC 289 sections in this project

- §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

Ensuring compatibility with Nuclear Regulatory Commission Regulation Action / Amendment Tracking System

- NRC RATS ID 2020-1 Due 06/13/23
- NRC RATS ID 2020-3 Due 11/16/23
- NRC RATS ID 2021-1 Due 09/08/24

Progress:

- The revised rule sections became effective on 10/23/2024. The inspectors will begin enforcing the new requirements after 4/1/2025.

#### 23R048 Licensing of RAM

Revision of §289.252 Licensing of Radioactive Material

Ensuring compatibility with NRC RATS

- NRC RATS 2021-2 due 12/30/2024.
- NRC RATS 2023-1 due 9/25/2026.

Progress:

- The revised rule became effective 10/29/2024. The inspectors will begin enforcing the new requirements after 4/1/2025.

#### 23R012 - Laser

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

Progress:

- The Adopted rule was published in the 12/13/2024 issue of the TR and became effective on 12/17/2024. The inspectors will begin enforcing the new requirements after 6/1/2025.

#### 23R013 - Accelerators

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

Progress

- The revised rule became effective on 9/30/2024. Inspectors will begin enforcing the new requirements after 4/1/2025.

#### 23R057 Texas Radiation Advisory Board (TRAB)

Revision of §289.130 Radiation Advisory Boards

- SB 1592 (88R) passed to increase the Texas Radiation Advisory Board membership to 19 members, adding a requirement for a member to be licensed

by the Texas Veterinary Board.

Progress

- The proposed public comment period was from 11/1/2024 to 12/2/24. Two comments were received, but there was no change in the rule language.
- We are about two months ahead of schedule for this rule which could be effective as early as February 2025.

24R087 Radiation Safety Requirements for Mammography Machines

Revision of §289.230 Certification of Mammography Systems and Mammography Machines Used for Interventional Breast Radiography and repeal of §289.234 Mammography Accreditation. Revision of §289.230 is to be compatible with the amended FDA regulations at 21 CFR 900 Mammography Quality Standards Act (MQSA).

Progress:

- Draft was shared with TRAB in July 2024.
- The program requested TRAB to assign the review to a subject matter expert in the Medical Committee at that time.
- A Kick-Off meeting was held on 8/7/24.
- The draft rule public comment period was from 9/17/24 to 10/1/24.
- The Proposed rule is scheduled to be published in the 3/28/25 issue of the TR.
- The public comment period for the proposed rule is scheduled to be from 3/28/25 to 4/28/25.

**What Happens Next for Effective Rules**

- Staff is working on the web version of the rule sections for projects 23R011, 23R048, and 23R013
  - Each section is published as an Adobe document on the Radiation Program website.
  - An interactive table of contents (TOC) is added to the document.
  - Headers on each page indicate where the reader is in the rule.
- We will send notifications via GovDelivery to our stakeholders and the inspectors will also notify licensees and registrants as they perform inspections.

**Future Rule Projects**

- §289.228 Radiation Safety Requirements for Industrial Radiation Machines
- §289.231 General Provisions and Standards for Protection Against Machine-Produced Radiation
- §289.227 Use of Radiation Machines in the Healing Arts
- §289.226 Registration of Radiation Machine Use and Services

**Inspection Data (FY24)**

Number of Inspections for FY24		
	<b>FY24 Q2 (12/1/23 – 2/29/24)</b>	<b>FY24 Q3 (3/1/24 – 5/31/24)</b>

	# Ins	# Insp with Violations		# Ins
RAM	204	31 (15%)	RAM	204
X-Ray	972	393 (40%)	X-Ray	972
X-Ray Remote	106	30 (28%)	X-Ray Remote	106
Mammography	169	32 (19%)	Mammography	169
Laser	5	5 (100%)	Laser	5
	<b>FY24 Q4 (6/1/24 – 8/31/24)</b>		<b>FY25 Q1 (9/1/24 – 11/31/24)</b>	
	# Ins	# Insp with Violations		# Ins
RAM	129	20 (16%)	RAM	129
X-Ray	918	382 (42%)	X-Ray	918
X-Ray Remote	235	77 (33%)	X-Ray Remote	235
Mammography	147	26 (18%)	Mammography	147
Laser	42	36 (86%)	Laser	42

### **Technical Staff Vacancies**

<b>Position</b>	<b>Location</b>	<b>Anticipated Fill Date</b>	<b>Notes</b>
X-ray/Mammography Inspector	Amarillo	TBD	To be reposted
X-ray Inspector	Austin	TBD	To be reposted
X-ray Inspector	San Antonio	January 2025	Positions filled
X-ray Inspector	Arlington	January 2025	Positions filled
RAM Inspector	Arlington	January 2025 March 2025	1 Position filled 2 Positions to be posted in February
RAM Inspector	Corpus Christi	March 2025	To be reposted in February
RAM Inspector	Houston	January 2025 March 2025	1 Position filled 1 Position to be posted in February
RAM License Reviewer	Austin	TBD	To be posted
RAM License Reviewer	Austin	TBD	To be reposted
Medical X-ray Reviewer	Austin	TBD	To be posted
Industrial/Medical X-ray & Laser Reviewer	Austin	TBD	To be posted

### **Staff Training and Activities**

- One Radioactive Materials Inspector completed NRC H-117S Introduction to Health Physics Self-Study course.

### **Compliance Activities**

October 2024 to December 2024:

- Orders: 111
- Administrative Penalties: \$ 399,665.00

- Revocations:
  - 18 X-ray registrations
  - 2 Laser registrations
  - 0 Radioactive Material licenses

### **Mammography Branch**

No updates.

### **Registration Branch**

- Two vacancies for X-ray/Laser Registration Reviewers.

### **Emergency Response Activities**

#### South Texas Project Nuclear Power Plant (STP)

- STP held its annual Media Day on November 18, 2024, in Bay City. Two DSHS staff attended.
- STP conducted training on changes to their Emergency Action Levels (EALs) and dose assessment software STAMPEDE on November 20, 2024, in Austin. The training was held in person and virtually. Eighteen DSHS staff attended.
- STP conducted refresher training on Pressurized Water Reactors (PWRs) on November 20, 2024, in Austin. The training was held in person and virtually. Sixty-three DSHS staff attended.

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

- The CPNPP Hostile Action tabletop exercise was held on January 14, 2025. Five DSHS members participated.
- The CPNPP dress rehearsal is scheduled for July 9, 2025, and the FEMA-graded exercise is scheduled for August 13, 2025. There will be a full radiation control team participating in both exercises.

#### Waste Isolation Pilot Plant (WIPP)

- WIPP will continue quarterly meetings and offer training and briefings.
- Local Briefings were conducted with representatives from Reeves, Ector, Martin, and Taylor counties.
- There have been 14 WIPP shipments through Texas since the last report, and a total of 76 shipments this year.
- The program is currently working on exchanges and calibrations of the survey instruments along the WIPP route (I-20).
- Since the last report, approximately 30 students attended the Modular Emergency Response Radiological Transportation Training (MERRTT) course in Taylor County.
- Edward Flores accepted the DSHS WIPP trainer position.
- The WIPP Quarterly Meeting was held on November 14, 2024, in Austin, TX. Those attending in person at the Moreton Building were Denise Brooks, Scott Langenbeck, Jason Johnson, and Forrest Weston. Those in attendance by Teams were Lisa Bruedigan and Joann Harthcock.
- Forrest Weston and Ruben Cortez worked with Angel Yartz to create a GIS map for the WIPP route.

#### Pantex/Agreement in Principle (AIP)

- Shay Christian and Tim Gibson attended the quarterly AIP meeting on October 17, 2024. Local AIP meetings were attended in October and December. No local meeting was held for November.
- Tim Gibson and Shay Christian attended the FEMA Radiological Emergency Preparedness Course on October 21-25, 2024.
- Quarterly environmental sampling was performed on October 10, 2024.

Soil/Sediment, vegetation, surface water, and drinking water were obtained and sent to the DSHS Lab for analysis. OSLs were exchanged at the sampling locations on and around the Pantex plant on October 10, 2024. The samples were sent to the DSHS Lab for analysis. These results are pending.

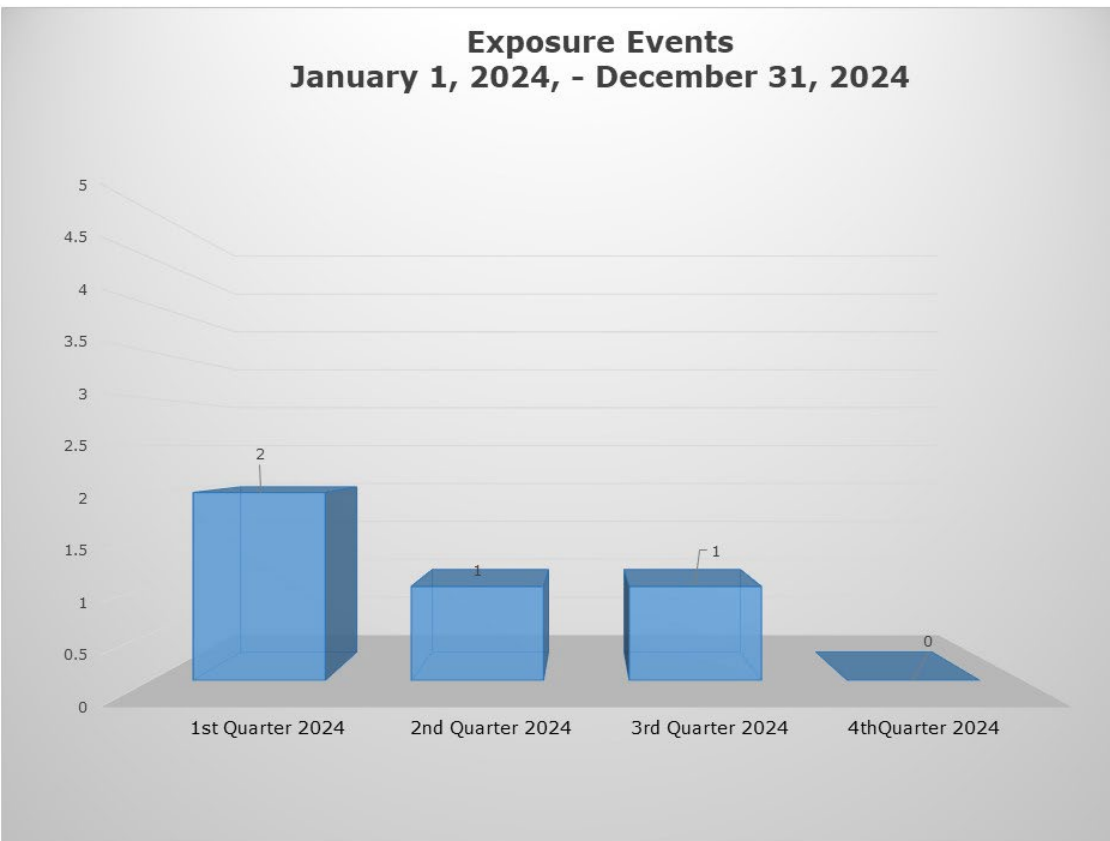
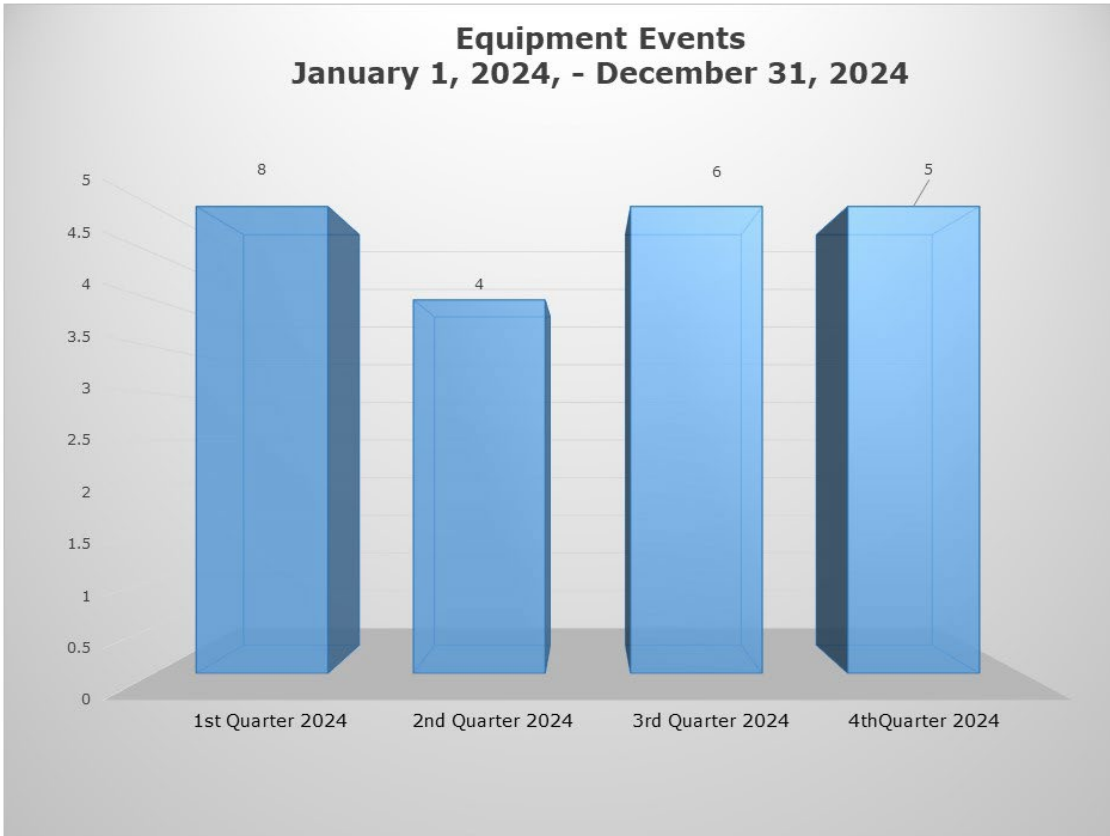
- A Pantex Plant onsite exercise was supported by DSHS personnel on November 6, 2024.
- Quarterly radio communication tests were performed on October 16, 2024, on the northwest quadrant of the 10-mile EPZ. Both radio and Zello communications were tested.
- Calibrations were performed by Amarillo DSHS personnel in November & December 2024. Instruments calibrated included 3 Eberline E-600, 5 Model 26-2, 3 Ludlum Model 3001, and 6 Canberra Model URAD.
- Tim Gibson and Shay Christian attended calibration training on the newly acquired Ludlum Model 3003 meters. Thirteen of these new meters were received and transported back to Amarillo and put into service.

#### Counterterrorism / Radiological WMD

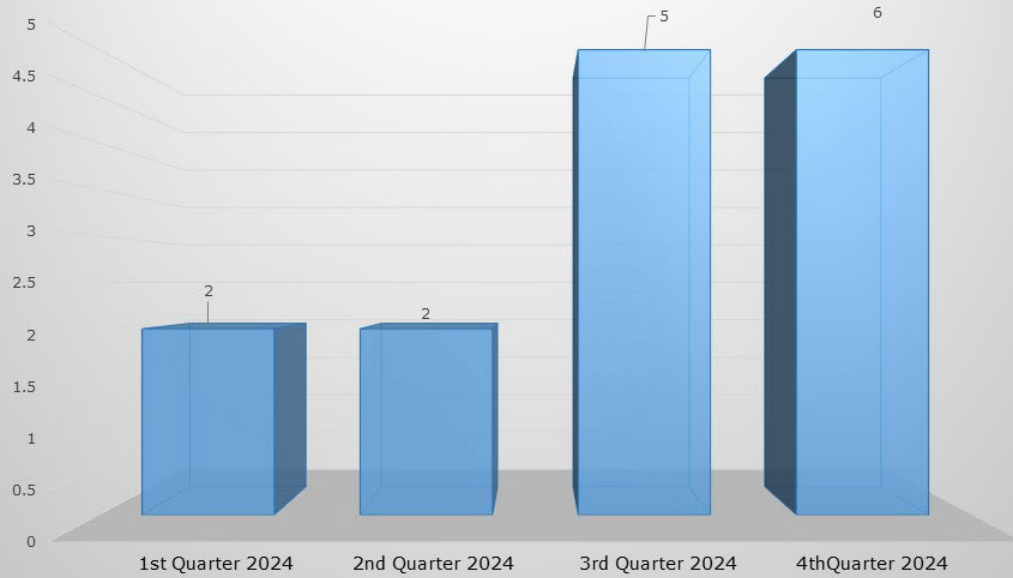
- Ongoing Federal, State, and Local Agencies preparedness planning for the World Cup 2026 Soccer Event was held. Dallas and Houston are the host cities during the scheduled matches in June and July 2026. Planning meetings to address Emergency Preparedness and Response for this major international event will be taking place beginning in October 2024. Clint Taylor will be attending these meetings as the representative for the DSHS Radiation Section.
- Recent participation in the Joint CBRNE Characterization, Exploitation and Mitigation (JCCEM) Course and Exercise that occurred on December 2-5, 2024. The overall JCCEM course purpose is to enhance interoperability by bridging the gap between WMD-CSTs and their area of responsibility response partners from local, state, and federal organizations. Members of the DSHS Radiological Emergency Response Team (RERT) supported and participated in this training event. The end-of-course exercise involved a Radiological Dispersal Device (RDD).
- Initial involvement in the planning of the Isotope Crossroads Tabletop Exercise (TTX) is planned for the spring of 2025. This exercise is being planned and coordinated by the FBI Dallas Office and will involve the Dallas-Fort Worth area. This exercise focuses on the security of radiological material during commercial transport. The TTX is designed to promote information sharing, joint situational awareness, team building, and problem resolution in a crisis response situation. Participants include representatives from Federal, State, and Local law enforcement and emergency response agencies, public health organizations, transportation companies, and radiological material-producing companies.
- On Thursday, October 31, 2024, Clint Taylor attended Abilene Christian University's (ACU) Nuclear Energy eXperimental Testing (NEXT) Lab Molten Salt Research Reactor (MSRR) Program Overview and Emergency Plan Kickoff Meeting. There was a good turnout from the local and regional Emergency Managers, Abilene Fire Chief, Abilene & ACU Police Leadership, EMS, Hospital, Dyess AFB, DPS Rad/Nuc Detection Unit, and the FBI unit located in Abilene. Dr. Lester Towell gave a very good overview and discussion concerning safety and associated hazards. The Nuclear Regulatory Commission (NRC) approved the construction permit for our Molten Salt Research Reactor (MSRR) on September 16, 2024. This is the first advanced liquid-fueled reactor approved in the US, and it will be installed on the ACU campus. A follow-up meeting with FBI, NNSA, and NRC representatives is planned for Thursday, January 23, 2025. Lisa Bruedigan and Clint Taylor attended.

#### **Incident Investigations**

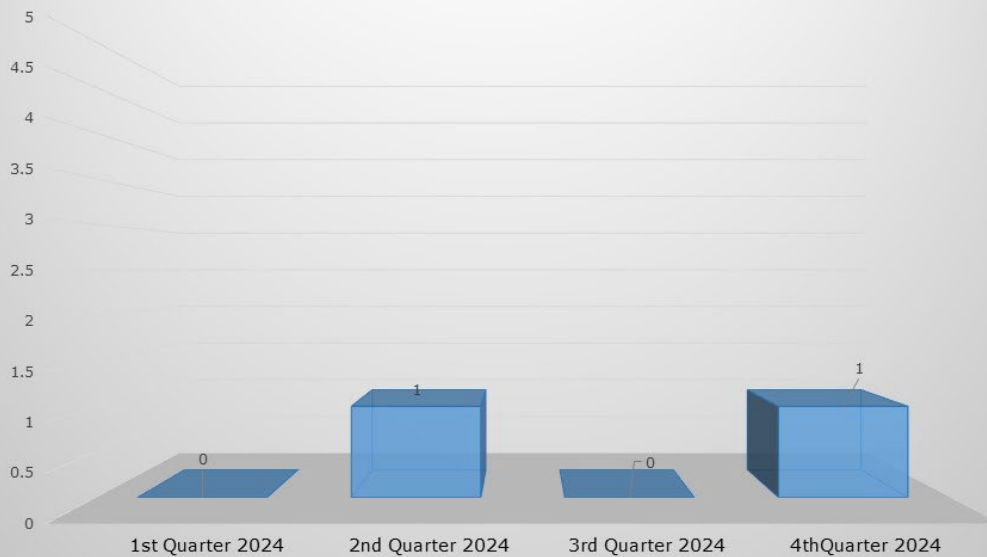
The graphs below reflect the numbers and categories of incidents received during this reporting period.



### Lost/Stolen/Missing Events January 1, 2024, - December 31, 2024



### Medical Events January 1, 2024, - December 31, 2024



#### **Medical Event Summaries:**

On November 21st, 2024, the Licensee notified the Department that it had administered a diagnostic radiopharmaceutical to the wrong patient. The Licensee



stated this event occurred on October 28, 2024, when a technician intravenously injected 4.8 mCi of Tc 99m Mebrofenin into a patient who was at the facility to receive an abdominal ultrasound. Tc 99m Mebrofenin is used in hepatobiliary scintigraphy (HIDA scan), an imaging procedure for evaluating organs in the abdominal area. On the day of the event, the technician went to the lobby and called out the name of the patient who was next for an examination. An individual presented himself, and they proceeded to the imaging room. The technician explained the process, set the patient up on the table, administered the radiopharmaceutical, and scanned the patient. A staff member from the front office then entered the room to enquire from the technician when he was going to address the actual patient who was still in the lobby waiting. The technician, realizing his error, immediately stopped the procedure. The Radiation Safety Officer was notified of the event on November 20, 2024. The referring physician, the ordering physician, and the patient were also notified. The licensee stated that corrective measures to prevent a recurrence of this event are being implemented. These measures include disciplinary action against the technician, and a companywide staff engagement initiative to reinforce the licensee's patient verification and mis-administration policies.

### **List of Acronyms**

ACU	Abilene Christian University
AIP	Agreement in Principle
CBRNE	Chemical, Biological, Radioactive, Nuclear, and Explosives
CPNPP	Comanche Peak Nuclear Power Plant
DSHS	Department of State Health Services
EAL	Emergency Action Level
EMS	Emergency Medical Service
EPZ	Emergency Planning Zone
FEMA	Federal Emergency Management Agency
JCCEM	Joint CBRNE Characterization, Exploitation and Mitigation
MERRTT	Modular Emergency Response Radiological Transportation Training
MQSA	Mammography Quality Standards Act
MSRR	Molten Salt Research Reactor
NEXT	Nuclear Energy eXperimental Testing Lab
NRC	Nuclear Regulatory Commission
OSL	Optically Stimulated Luminescence
PWR	Pressurized Water Reactors
RAM	Radioactive Material
RATS	Regulation Action/Amendment Tracking System
RDD	Radiological Dispersal Device
RERT	Radiological Emergency Response Team
SB	Senate Bill
STAMPEDE	South Texas Assessment Model Projecting Estimated Dose Evaluation
STP	South Texas Project Nuclear Power Plant
TAC	Texas Administrative Code
TOC	Table of Contents

TRAB	Texas Radiation Advisory Board
TTX	Isotope Crossroads Tabletop Exercise
URAD	Ultra Radiac
WIPP	Waste Isolation Pilot Plant