

DSHS Radiation Program Overview

Rick Croy



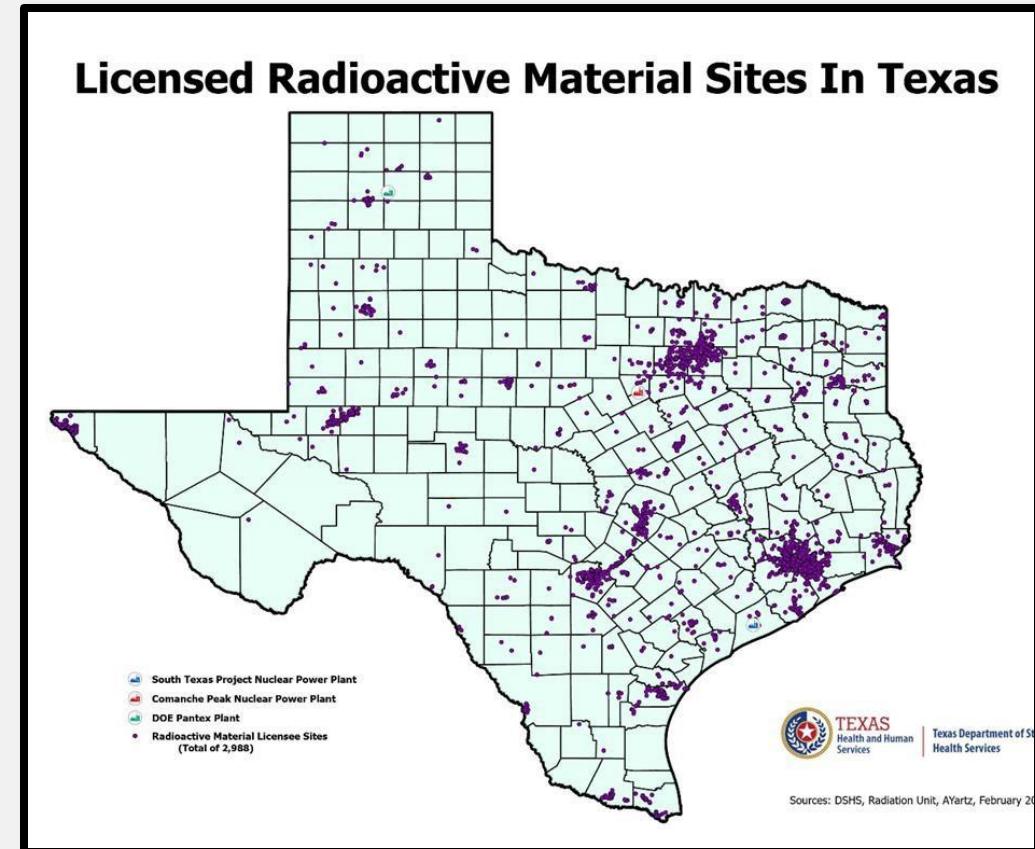
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Radiation Control

DSHS prevents unnecessary radiation exposure to the public by licensing, inspection, enforcement, and emergency response.

- Approx. 3,000 sites
- Inspectors:
 - 15 Radioactive Material
 - 21 X-ray
 - 11 Mammography
- Investigators
 - 4
- Emergency Response Team
 - 100+



Radiation Control Program Administration

- The use of radioactive material, X-ray machines and lasers are licensed by central office staff and inspected by staff in both field offices and central office.



- Dental Office
- Hospital
- Food Irradiator
- Industrial Plants
- Well Logging
- Industrial Radiographers





Radioactive Materials

1,351 Radioactive Material Licensees (2,525 sites)

572 General License Acknowledgements (GLA)

128 Waste Shipper/Transporter

117 RAM Reciprocity

4,525 Industrial Radiographers (127 sites)



X-Ray / Mammo / Laser

21,530 X-Ray Registrants

632 Mammography Certifications

3,648 Laser Registrants



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Incidents & Complaints

Annually

- 170 Incident and Complaint Investigations
- 130 Technical Assist
- 120 DOT Exemptions



Incident Investigations

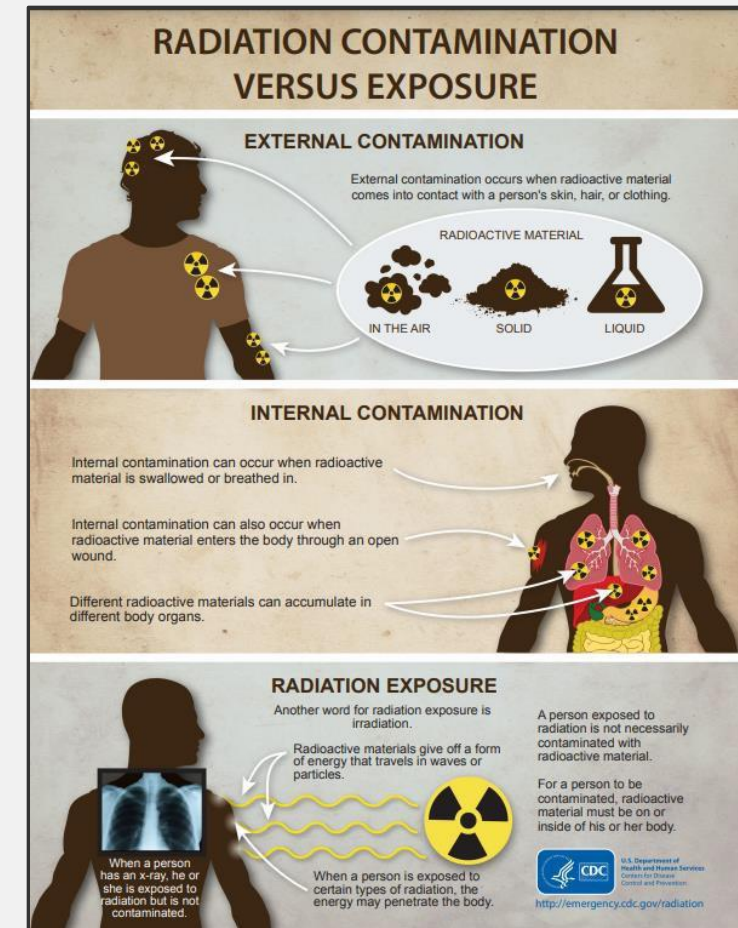
- Radioactive contaminated tissue boxes
- Contaminated stainless-steel filters used for airplanes and trucks
- Stolen/lost rad sources and equipment
- Dice laced with Strontium-90
- Radiation burns from Fluoroscopy procedures

Radiation Concerns

- Public Health Concerns
 - Exposure & Contamination
 - Radiation Sickness
- Regulatory Concerns
 - Public Health/Safety
 - Exceeding Permissible Regulatory Limits
- Contamination – *(minimal risk to responders)*
 - Rad material in an unwanted place
 - 80% can be removed by taking off clothing
- Exposure *(possible significant risk to responders)*
 - Rad waves/particles penetrate the body
 - Exposed persons do not become radioactive or contaminated (no threat to others)
 - Time/Distance/Shielding can be used as protection



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https://www.cdc.gov/nceh/radiation/emergencies/pdf/infographic_contamination_vs_exposure.pdf

Radiological Emergency Response

DSHS is the lead State Agency for radiological emergency response in Texas.

[\[25 TAC 289.101\(h\)\]](#)



Comanche Peak



Pantex



South Texas Project

Mobilization of Radiological Emergency Response Team (RERT)

- 24-hr notification
 - team members selected & contacted
- Dispatch initial team to scene
 - report to the Incident Commander
 - provide updates to leadership and partners
- Mobilize additional teams as needed
- Approximately 100 personnel support 24-hour operations
- Coordinates with state operations centers and public health regions



Accident Assessment Team



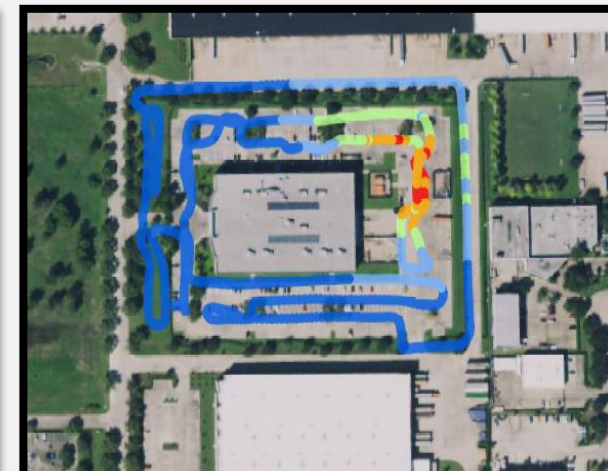
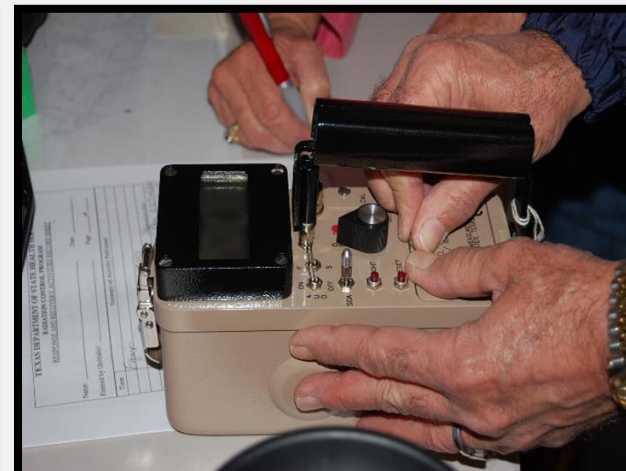
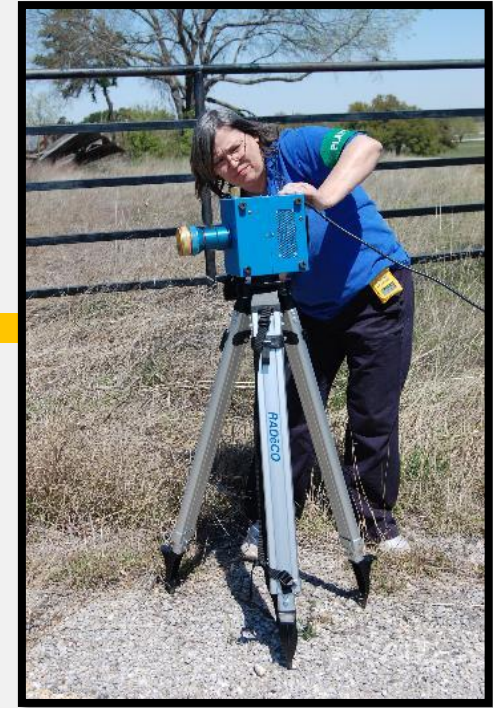
- Uses a computer model to make protective action recommendations
- Important to ground truth these models
- State AA Team initially works from Austin and can be deployed early on to work with locals/licensees



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Field Teams

- Takes radiation readings
- Takes air samples from inside the plume
- Obtains valuable early picture of what makes up the release



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Mobile Laboratory



- The RCP mobile analysis laboratory is contained within a 32' gooseneck-type trailer.
- 1 Gamma Spectroscopy System
- 2 High Purity (>25%) Germanium Detectors (1 p-type, 1 n-type)
- 1 Alpha-Beta Proportional System with Automatic (25 capacity) Sample Changer



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Technical Assistance

DSHS RERT Resources

- Radiological Monitoring/ Dose Projections
- Protective Action Recommendations
- Decontamination/Remediation Assistance
- Liaison with Local, State & Federal Governments
- Personnel Monitoring
- Mobile Laboratory
- Shelter Support
- Contacts/info for Emergency Medical Care



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DSHS RERT Support During Rad Incidents

Radiation Emergency Response Team is scalable.

- Full activation aligns with state emergency operations
 - Unified command structure anticipated
- Regional coordination through public health and response partners
- Local coordination with emergency management, EMS, and hospitals
- Supports field operations, staging areas, and incident command



World Cup Project RSI System in DSHS Truck

System components located in both
side boxes of truck camper



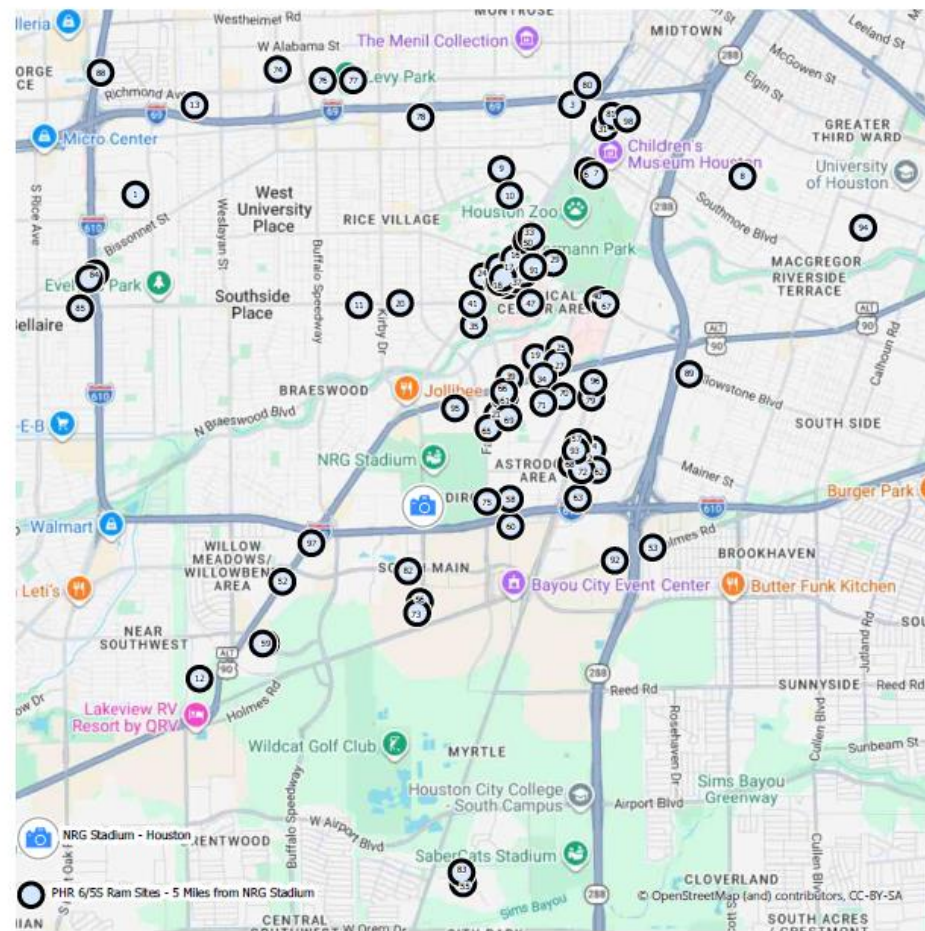
Benefits of RSI System

- Data Collection – Over 1200 miles of data collected in 4 days by 3 staff members.
DFW and Houston
- Source Identification
- Mapping and surveys completed simultaneously
- High level sources were seen while traveling in excess of 60mph.

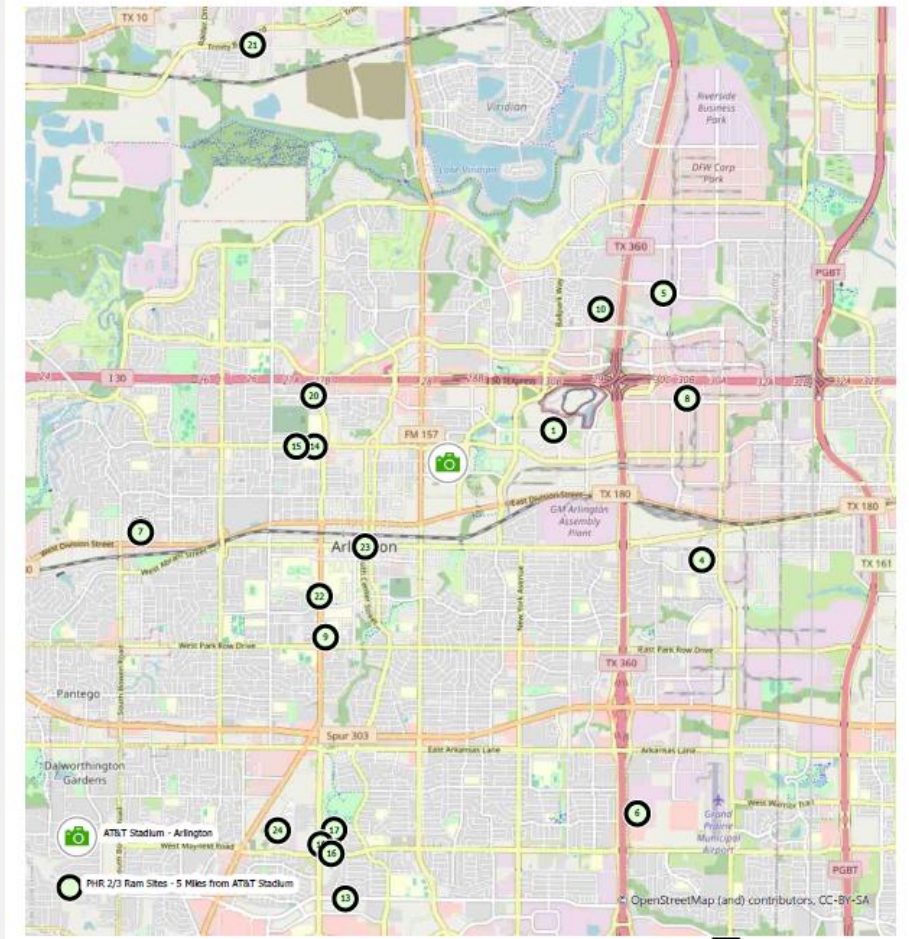


RAM Licensees 5 Miles From World Cup

World Cup RAM Sites - NRG Stadium - Houston



World Cup RAM Sites - AT&T Stadium - Arlington



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Questions?

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