

**Overview of the
Railroad Commission of Texas
Site Remediation Section**



Heidi Bojes

**Toxic Substance Coordinating Committee
Human Health Subcommittee Meeting
June 21, 2006**

Outline of Presentation

- **History of Railroad Commission of Texas**
- **Railroad Commission Today**
- **Site Remediation Section**
- **Contacts**

History of the Railroad

Commission of Texas (RRC)

- RRC was established to regulate private railroads in 1891.
- RRC receives regulatory jurisdiction:
 - Oil and gas production in 1919
 - Buses and trucks in 1931
 - Liquefied petroleum gas in 1939
 - Surface mining and reclamation in 1976
 - Alternative fuels research in 1991
- Today, RRC no longer regulates buses and trucks and railroads (2005).

RRC Today

- Three elected commissioners – Elizabeth Ames (Chairman); Michael Matthews; and Victor Carrillo.
- Commissioners serve six year overlapping terms.

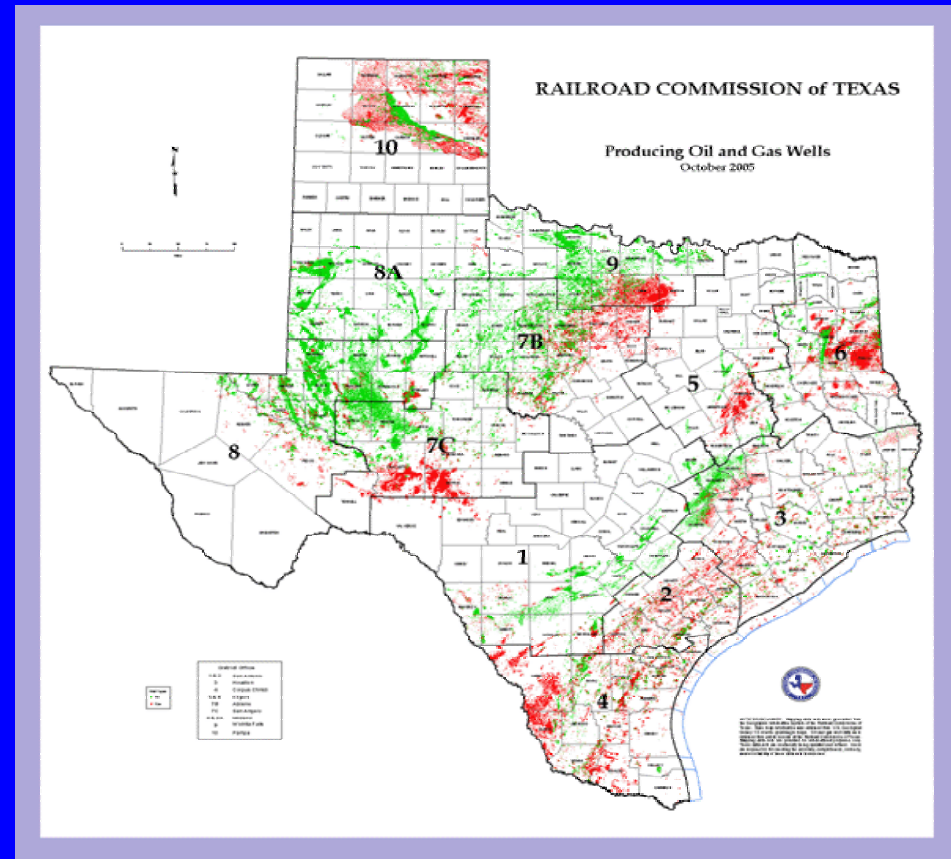


RRC Today

- RRC consists of four regulatory divisions (Oil and Gas Division, Gas Services Division, Surface Mining, and Reclamation Division) that oversee:
 - **oil and gas industry**
 - gas utilities
 - pipeline safety
 - safety in the liquefied petroleum gas industry
 - surface mining of coal and uranium

Oil and Gas Production in TX

- Texas is a top producer of oil and gas in the US.
- There are about 241,000 active oil (green) and gas (red) wells in Texas
 - 1.7 million barrels/day
 - 11.5 BCF of gas/day
- If Texas were a nation, it would rank as one of the top ten producers.



RRC's Oil and Gas Division

- It's statutory role is to
- 1) prevent waste of the state's natural resources;
- 2) protect the correlative rights of different interest owners;
- 3) to prevent pollution; and,
- 4) to provide safety in matters such as hydrogen sulfide.

RRC's Oil and Gas Division

- Oil and Gas Division activities include:
 - Permitting/Production;
 - Environmental Services;
 - Field Operations;
 - Oil Field Cleanup Program;
 - Well Plugging
 - Site Remediation

Oil and Gas Division Site Remediation Section

- 1. Oil Field Cleanup Program
- 2. Operator Cleanup Program
- 3. Voluntary Cleanup Program
- 4. Grants Program

Site Remediation

1. Oil Field Program

- Utilizes the Oil Field Cleanup Fund to remediate pollution of abandoned oil and gas sites.
- Funding comes from regulatory fees and bond fees paid by the Oil and Gas Industry.
- Abandoned sites become candidates when responsible party fails or refuses to take action, or is unknown, deceased or bankrupt.
- Cleanup prioritization is based on public health, safety, and the protection of the environment.

Site Remediation

2. Operator Cleanup Program

- Provides oversight of complex pollution cleanups performed by the oil and gas industry.
- Complex sites include those that occur in sensitive environments and may require site specific cleanup levels based on risk.
- Currently, operator cleanup program oversees about 600 active and monitored cleanup sites.

Site Remediation

3. Voluntary Cleanup Program

- VCP provides administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas.
- Lenders, developers, owners, and operators cannot have caused or contributed to the contamination.
- Applies to waste cleanups under Railroad Commission jurisdiction.
- Offers the applicant a release of liability to the state.
- As a result, many unused or under used properties may be restored to economically productive or community beneficial use.

Site Remediation

4. Grants Program

- Brownfields Reponse Program (EPA)
 - Program identifies Brownfields sites associated with E&P activities and promotes voluntary cleanup by providing funding for environmental assessments with little or no cost.
 - Brownfields is general term used nationally to describe property whose redevelopment potential has been impaired due to real or perceived liability associated contamination.

Site Remediation

4. Grants Program

- Saltwater Seep Investigations
 - Investigations conducted to identify and mitigate the source of saltwater contamination in certain creeks/ivers in Texas (Petronila Creek)
 - Total Maximum Daily Loads (TMDL)
- Research
 - RRC conducted a sampling and analysis program to create a database that characterizes polycyclic aromatic hydrocarbons (PAHs) in E&P waste and impacted soils in Texas at sensitive sites.

Site Remediation Rules/Guidance

www.rrc.state.tx.us/rules/index.html

- ◆ § 3.8 Water Protection Rule
- ◆ § 3.14 Plugging Rule
- ◆ § 3.30 MOU Between RRC & TCEQ
- ◆ § 3.91 Cleanup of Soil Contaminated by a Crude Oil Spill
- ◆ § 3.98 Standards for Management of Hazardous Oil & Gas Waste
- ◆ § 4 Sub D Voluntary Cleanup Program
- ◆ § 4 Sub F Oil & Gas NORM

Site Remediation Rules/Guidance

- The RRC does not have guidance or rules on risk-based standards of cleanup.
- The RRC will accept any recognized standard as long as human health and the environment are protected
- Most risk assessments submitted to the agency use the Texas Risk Reduction Program (TRRP).

Examples of Oilfield Facilities

Primary Production



Tank Battery



Well Blowout



Gas Well Head

Possible Contaminants:

Crude Oil Tank Battery- BTEX, PAHs and TPH

Saltwater Tanks- Chloride, BTEX, TPH, NORM

Examples of Oilfield Facilities

Primary Production



Lined Drilling Mud Pit

Possible Contaminants:
Drilling Mud Storage Pits-
Chloride, metals, BTEX,
TPH

Pits of unknown origin-
Chloride, metals, VOCs,
SVOCs

Emergency Saltwater Pits-
Chloride, metals, BTEX,
TPH

Examples of Oilfield Facilities

Transportation Pipelines



Possible Contaminants:

Crude Oil - BTEX, TPH, PAHs

Saltwater - Chloride, BTEX, TPH

Liquid Natural Gas - BTEX, TPH

Examples of Oilfield Facilities

Compressor Stations



Glycol Dehydrator at a
Compressor Station

- Compressor stations used to maintain pipeline pressure.
- Possible contaminants: BTEX, TPH, VOCs, glycols, halogenated VOCs, TPH, and metals.

Examples of Oilfield Facilities

Natural Gas Processing Plants

- Gas plant processes include: removal of impurities, fractionation, and liquids separation.
- Possible Contaminants: lube oil, condensate liquids, salt water, metals, corrosion inhibitors, glycols, amines, solvent NORM, asbestos



RRC Site Remediation Contacts

- **Assistant Director - Bill Miertschin**
463-8561; william.miertschin@rrc.state.tx.us
- **Technical Manager – Byron Ellington**
463-5983; byron.ellington@rrc.state.tx.us
- **Operator Cleanup Program – Peter Pope**
463-8202; peter.pope@rrc.state.tx.us
- **Voluntary Cleanup/Brownfields Program – Aimee Beveridge**
463-7995; aimee.beveridge@rrc.state.tx.us
- **Toxicology – Heidi Bojes**
463-3089; heidi.bojes@rrc.state.tx.us

<http://www.rrc.state.tx.us/>