

# Railroad Commission Update on Uranium Exploration Regulations



Surface Mining and Reclamation Division

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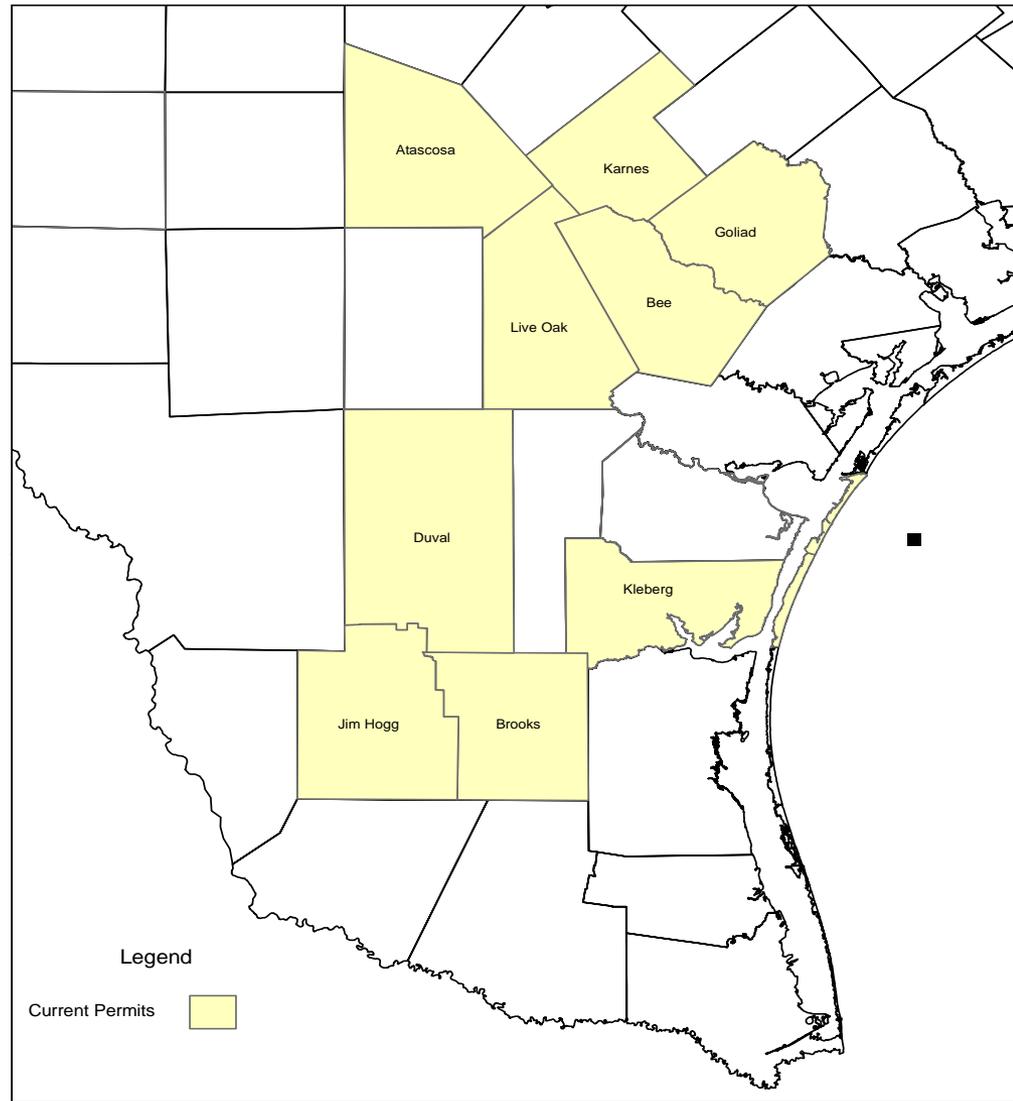
# Topics

- Current exploration
- Authorization and regulation of uranium exploration
- Updated rules (proposed)

# Current Uranium Exploration

- 12 exploration permits
- About 514,000 acres permitted
- All exploration is in South Texas
- One inactive permit in North Texas

# TEXAS URANIUM EXPLORATION



# Authorization

- Uranium exploration, surface mining, and reclamation regulation authorized by Title 4, Mines and Mining, Chapter 131, Texas Uranium Exploration, Surface Mining and Reclamation Act, initial adoption effective 1975, most recent amendment in 2007.

# Regulation

- Regulated under Title 16 *Texas Admin. Code*, Chapter 11, Uranium Surface Mining Regulations, effective 1976, amended 2001.

# Uranium Exploration, Surface Mining, and Reclamation

- Updated Chapter 11 regulations proposed in accordance with HB 3837, May 2007.

# Title 16 TAC Chapter 11

## Purpose

“Assure that exploration and surface mining operations are to be conducted in a manner that will prevent unreasonable degradation to land and water resources.”

# Title 16 TAC Chapter 11

“Assure that reclamation of all explored land and surface-mined land is accomplished as contemporaneously as practicable with the exploration activity and surface mining operation, recognizing that the extraction of minerals by responsible operations is an essential and beneficial economic activity.”

# Exploration Requirements

- Exploration permit required
- Permits valid for 12 months
- Permit governs all disturbances
- Permit does not constitute a right to explore
- Right of entry required for exploration

# Exploration Requirements (cont.)

- Permit boundaries may overlap
- Permits may be revised, renewed or transferred
- Permit and transfer fees
  - \$1.50 per acre and \$50.00 per borehole
  - \$500.00 transfer fee
- Renewal fees same as new permit fees
- Revisions are \$1.50 acre (additional acres)

# Requirements for Uranium Exploration Permitting

Permit must contain provisions to govern:

- Locating, drilling, plugging and abandoning exploration boreholes
- Casing of exploration boreholes
- Use of wells for rig supply purposes
- Plugging and abandonment of wells
- Surface reclamation of exploration site

# Notification by Commission

## Initial Applications, Revisions, Renewals and Transfers

- Texas Legislature
- County Judge and county health authority
- Mayor and municipal health authority (as applicable)
- Groundwater conservation districts



# Pre-Exploration Groundwater Quality

- Groundwater quality data provided to groundwater conservation districts
- Groundwater quality parameters
- Water levels

# Constituents

| MAJOR       | MINOR     | TRACE    |
|-------------|-----------|----------|
| Bicarbonate | Boron     | Arsenic  |
| Calcium     | Carbonate | Selenium |
| Chloride    | Fluoride  |          |
| Magnesium   | Iron      |          |
| Molybdenum  | Manganese |          |
| Sodium      | Nitrate   |          |
| Sulfate     | Potassium |          |

# Radionuclides

|             |            |
|-------------|------------|
| Radium 226  | Gross Beta |
| Gross Alpha | Uranium    |

# Additional Parameters

|                                |                                 |
|--------------------------------|---------------------------------|
| pH<br>(field and lab)          | Total Dissolved<br>Solids (TDS) |
| Temperature<br>(field and lab) | Specific<br>Conductance         |
| Total Alkalinity               |                                 |

# Operating Requirements

- No drilling within 150 feet of water well without written consent
- Segregation of topsoil and subsoil
- Protection of livestock from mud pit
- Prevention of surface runoff

# Plugging and Reporting

- Borehole plugging within 3 business days
- Borehole casing within 3 business days
- Boreholes plugged or cased within permit term
- Type-I neat cement is default material
- Submittal of borehole plugging report



# Site Reclamation

- Mud pit
- Trash and debris disposal
- Grade to approximate original contour
- Revegetation

# Wells

- Wells installed in accordance with TDLR
- Registration of wells
- Subject to GCD rules regarding registration

# Required Forms

- Application to Conduct Uranium Exploration Activities by Drilling
- Application to Transfer a Uranium Exploration Permit
- Cased Borehole Completion Report
- Borehole Plugging Report

# Thanks

For more information visit our  
website at [www.rrc.state.tx.us](http://www.rrc.state.tx.us)

