

**RAILROAD COMMISSION OF TEXAS  
OFFICE OF GENERAL COUNSEL**

**OIL AND GAS DOCKET  
NO. 08-0246891**

**IN THE FUHRMAN-MASCHO FIELD,  
ANDREWS COUNTY, TEXAS**

**FINAL ORDER  
APPROVING THE APPLICATION OF LOTUS L.L.C.  
TO DISPOSE OF OIL AND GAS WASTE, INCLUDING NORM, BY INJECTION  
INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL OR GAS  
IN THE LOTUS LEASE WELL NO. 2C  
FUHRMAN-MASCHO FIELD  
ANDREWS COUNTY, TEXAS**

The Commission finds that after statutory notice in the above-numbered docket heard on June 14, 2006, the presiding examiners have made and filed a report and proposal for decision containing findings of fact and conclusions of law, which was served on all parties of record; that the proposed application is in compliance with all statutory requirements; and that this proceeding was duly submitted to the Railroad Commission of Texas at conference held in its offices in Austin, Texas.

The Commission, after review and due consideration of the examiners' report and proposal for decision, the findings of fact and conclusions of law contained therein, and any exceptions and replies thereto, hereby adopts as its own the findings of fact and conclusions of law contained therein, and incorporates said findings of fact and conclusions of law as if fully set out and separately stated herein.

Therefore, it is **ORDERED** by the Railroad Commission of Texas that Lotus L.L.C. be and is hereby authorized to dispose of non-hazardous oil and gas waste, including naturally occurring radioactive material (NORM), by injection into its Lotus Lease Well No. 2C, Fuhrman-Mascho Field, Andrews County, Texas, subject to the following terms and conditions:

**SPECIAL CONDITIONS:**

1. Oil and gas waste shall only be injected into a cavern in a salt formation in the subsurface depth interval from 2400 feet to 3100 feet.
2. The injection volume shall not exceed 10,000 barrels of saltwater per day.
3. The maximum operating surface injection pressure shall not exceed 1200 psig.
4. Prior to beginning disposal operations in the cavern disposal system, the cavern capacity shall be determined by sonar survey or other Commission approved method.
5. The results of the sonar survey or other method shall be reported to the Commission's Austin office prior to beginning disposal.
6. Records relating to the disposal of oil and gas NORM waste shall be retained for at least three

- years after the date of disposal. The records shall include for each shipment disposed of:
- a. the identity of the generator of the oil and gas NORM waste;
  - b. the identity of the property where the oil and gas NORM waste was generated, including the district, field, lease, unit, facility, or offshore tract;
  - c. the physical nature of the NORM waste (i.e. pipe scale, contaminated soil, etc.);
  - d. the volume of the NORM waste; and
  - e. the radioactivity level of the NORM waste in pCi/g of Radium-226 and Radium-228.
7. The permittee shall comply with the worker protection standard of Rule 94(c).
  8. A radiation safety officer (RSO) shall be on location during any activity that involves the retrieval of logging or workover tools, tubulars, or equipment from the well after NORM disposal begins.
  9. Within one year after active disposal operations cease at the facility and prior to release of the facility for unrestricted use, the permittee shall decontaminate the land surface at the site and any equipment not otherwise exempted under the provisions of TAC §289.259(d)(2). For purposes of this provision, the land surface shall be considered decontaminated when the levels of Radium 226 and Radium 228 do not exceed 5 pCi/g above background or do not exceed the level specified in Statewide Rule 94, whichever is greater. Equipment shall be considered decontaminated when it meets the exception levels set forth in §289.259(w).

**STANDARD CONDITIONS:**

1. Injection must be through tubing set on a packer. The packer must be set no higher than 100 feet above the top of the permitted interval.
2. The District Office must be notified 48 hours prior to:
  - a. running tubing and setting packer;
  - b. beginning any workover or remedial operation;
  - c. conducting any required pressure tests or surveys.
3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.
4. Prior to beginning injection, and subsequently after any workover, an annulus pressure test must be performed. The test pressure must equal the maximum authorized injection pressure or 500 psig, whichever is less, but must be at least 200 psig. The test must be performed and the results submitted in accordance with the instructions of Form H-5.
5. The injection pressure and injection volume must be monitored at least monthly and reported annually on Form H-10 to the Commission's Austin Office.
6. Within 30 days after completion, conversion to disposal, or any workover which results in a

- change in well completion, a new Form W-2 or G-1 must be filed in duplicate with the District Office to show the current completion status of the well. The date of the disposal well permit and the permit number must be included on the new Form W-2 or G-1.
7. Written notice of intent to transfer the permit to another operator must be submitted to the Commission at least 15 days prior to the date the transfer will occur by filing Form P-4.
  8. Unless otherwise required by conditions of the permit, completion and operations of the well shall be in accordance with the information presented on the application (Form W-14).
  9. The operator shall comply with financial security requirements of Statewide Rule 78.
  10. The well shall be identified and operated according to Permit Number\_\_\_\_\_.
  11. Prior to beginning operation, all collecting pits, skimming pits, or washout pits must be permitted under the requirements of Statewide Rule 8.
    - a. Prior to beginning operation, a catch basin constructed of concrete, steel, or fiberglass must be installed to catch oil and gas waste which may spill as a result of connecting and disconnecting hoses or other apparatus while transferring oil and gas waste from tank trucks to the disposal facility.
    - b. Prior to beginning operation, all fabricated waste storage and pretreatment facilities (tanks, separators, or flow lines) shall be constructed of steel, concrete, fiberglass, or other materials approved by the Director of Environmental Services. These facilities must be maintained so as to prevent discharges of oil and gas waste.
    - c. Prior to beginning operation, dikes shall be placed around all waste storage, pretreatment, or disposal facilities. The dikes shall be designed so as to be able to contain a volume equal to the maximum holding capacity of all such facilities. Any liquids or wastes that do accumulate in the containment area shall be removed within 24 hours and disposed of in an authorized disposal facility.
    - d. Prior to beginning operation, the facility shall have security to prevent unauthorized access. Access shall be secured by a 24-hour attendant, a fence and a locked gate when unattended, or a key-controlled access system. For a facility without a 24-hour attendant, fencing shall be required unless terrain or vegetation prevents truck access except through entrances with lockable gates.
    - e. Prior to beginning operation, each storage tank shall be equipped with a device (visual gauge or alarm) to alert drivers when each tank is within 130 barrels from being full.
  12. Form P-18, Skim Oil Report, must be filed in duplicate with the District Office by the 15th day of the month following the month covered by the report.

Provided further that, should it be determined that such injection fluid is not confined to the approved strata, then the permission given herein is suspended and disposal operation must be stopped until the fluid migration from such strata is eliminated. The special permit conditions may be modified after notice and opportunity for hearing to prevent migration of injection fluid from the approved strata.

It is further **ORDERED** by the Commission that this order shall not be final and effective until 20 days after a party is notified of the Commission's order. A party is presumed to have been notified of the Commission's order three days after the date on which the notice is actually mailed. If a timely motion for rehearing is filed by any party of interest, this order shall not become final and effective until such motion is overruled, or if such motion is granted, this order shall be subject to further action by the Commission. Pursuant to TEX. GOV'T CODE §2001.146(e), the time allotted for Commission action on a motion for rehearing in this case prior to its being overruled by operation of law, is hereby extended until 90 days from the date the parties are notified of the order.

Each exception to the examiners' proposal for decision not expressly granted herein is overruled. All requested findings of fact and conclusions of law which are not expressly adopted herein are denied. All pending motions and requests for relief not granted herein are denied.

Done this 10th day of October, 2006.

**RAILROAD COMMISSION OF TEXAS**

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**Chairman Elizabeth A. Jones**

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**Commissioner Michael L. Williams**

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**Commissioner Victor G. Carrillo**

**ATTEST:**

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**Secretary**