



# RAILROAD COMMISSION OF TEXAS

## OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 03-0276810

---

**THE APPLICATION OF HILCORP ENERGY COMPANY TO ADOPT FIELD RULES  
FOR THE COOLEY (MEEK SAND) FIELD, FORT BEND COUNTY, TEXAS**

---

**HEARD BY:** Brian K. Fancher, P.G. - Technical Examiner  
Michael Crnich - Legal Examiner

**HEARING DATE:** July 12, 2012

**APPEARANCES:** **REPRESENTING:**

**APPLICANT:**

Dale E. Miller

Hilcorp Energy Company

**EXAMINERS' REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

As provided in the Notice of Hearing dated June 20, 2012, Hilcorp Energy Company ("Hilcorp") requests to adopt permanent Field Rules for the Cooley (Meek Sand) Field in Fort Bend County, Texas. At the hearing, the examiners noted the field is currently governed by special field rules, per Oil and Gas Final Order 03-0223153, that provides the following:

1. Designation of the field as the correlative interval from 12,670 feet to 13,262 feet, as shown on the log of the Grigar No. 1, GEC Survey, A-176, Fort Bend County, Texas, shall be designated as a single reservoir for proration purposes and be designated as the Cooley (Meek Sand) Field;
2. Two-part allocation formula that consists of five percent per well and ninety-five percent deliverability;

The examiners note that the spacing and density of wells completed in the subject field are currently governed by 16 TAC §§3.37 and 3.38.

At the hearing, Hilcorp requested that Field Rules for the Cooley (Meek Sand) Field be amended to include the following:

1. No Change;
2. 330'-660' well spacing, special provisions for "take points", a 33 foot "box" rule and "off-lease" penetration point for horizontal drainhole wells;
3. 40 acre units, optional 20 acre density, and 40 acre tolerance;
4. Allocation based on 95% deliverability and 5% acres with AOF status.

Hilcorp also requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well.

The application is unopposed and the examiners recommend that Field Rules for the Cooley (Meek Sand) Field be amended, as proposed by Hilcorp.

#### DISCUSSION OF THE EVIDENCE

The Cooley (Meek Sand) Field was discovered in July 1984 at an average depth of 13,300 feet. The field is classified as non-associated, 100% AOF and operates under special field rules adopted in Oil & Gas Final Order 03-0223153. There are fourteen producing gas wells and four operators carried on the July 2012 gas proration schedule.

Hilcorp is proposing to drill horizontal infill wells and requests Field Rules to promote the efficient and effective development of the remaining hydrocarbons. Hilcorp requests 330'-660' well spacing, special provisions for "take points", a 33 foot "box" rule and "off-lease" penetration point for horizontal drainhole wells, and 20 acre optional gas proration units.

Hilcorp requests that a field rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. Hilcorp's proposed rule specifies that, for purposes of lease line spacing, the nearest "take point" in a horizontal well be used and that the nearest take point be no closer than 330 feet to any property line, lease line, or subdivision line. This take-point could be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well.

Hilcorp proposes a tolerance "box rule" for horizontal drainhole wells that would allow drainholes to deviate 33 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As drilled wells for which all points are located within the "box" would be considered in compliance with their drilling permits.

In some cases, it is beneficial to penetrate the reservoir off lease, while still having "take points" no closer to lease lines than allowed under the field rules. Hilcorp requests that Field Rules for the subject field provide for an "off-lease" penetration point. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In this field, a well generally requires approximately 600 feet of horizontal displacement to make the 90 degree turn from vertical to

horizontal. If the penetration point is required to be on the lease, then the first point of production would be about 600 feet from the lease line. The proposed rule will allow approximately 300 feet of additional producing drainhole, resulting in the recovery of additional oil and gas reserves. The Commission has adopted similar rules allowing offsite penetration points in other fields, after the operator has given notice to the mineral owners of the off-lease tract on which the penetration point is to be located and received no protest. For purposes of the assignment of additional acreage pursuant to Statewide Rule 86, it is proposed that the distance between the first and last take-point in a horizontal drainhole well be used.

Hilcorp provided drainage area calculations for thirty-nine wells currently completed in the field. The drainage areas range from 0 acres up to a maximum of 694 acres. The average drainage area was calculated to be approximately 87 acres, but twenty-nine wells had drainage areas less than 80 acres and sixteen wells had drainage areas less than 40 acres. Based on the drainage area calculations, Hilcorp proposes 40 acre units with optional 20 acre density.

Additionally, Hilcorp requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well.

#### **FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
2. The Cooley (Meek Sand) Field was discovered in July 1984 at an average depth of 13,300 feet.
  - a. The field is classified as non-associated-100% AOF and operates under special Field Rules adopted in Oil & Gas Final Order 03-0223153.
  - b. There are fourteen producing gas wells and four operators carried on the July 2012 proration schedules.
3. The Cooley (Meek Sand) Field is actively being developed with horizontal drainhole wells.
4. Field Rules providing for 330'-660' well spacing, special provisions for 330' first and last "take points", a 33 foot "box" rule and "off-lease" penetration point for horizontal drainhole wells will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
5. Field Rules providing for 40 acre units with optional 20 acre density is appropriate for the Cooley (Meek Sand) Field.
  - a. Drainage area calculations for thirty-nine wells currently completed in the

field range from 0 acres up to a maximum of 694 acres.

- b. The average drainage area was calculated to be approximately 87 acres, but twenty-nine wells had drainage areas less than 80 acres and sixteen wells had drainage areas less than 40 acres. Based on the drainage area calculations, Hilcorp proposes 40 acre units with optional 20 acre density
6. Allowing an "off-lease" penetration point will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners of "off-lease" surface locations.
7. The filing of Form P-15 to designate the number of acres to be assigned to each well for proration purposes with no proration plats will eliminate unnecessary paperwork.

**CONCLUSIONS OF LAW**

1. Proper notice of this hearing was issued.
2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
3. Adopting Field Rules for the Cooley (Meek Sand) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

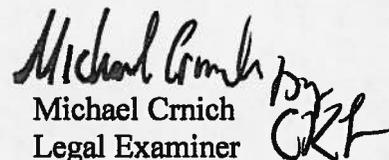
**EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission amend Field Rules for the Cooley (Meek Sand) Field, as requested by Hilcorp Energy Company.

Respectfully submitted,



Brian K. Fancher, P.G.  
Technical Examiner



Michael Crnich  
Legal Examiner