



# RAILROAD COMMISSION OF TEXAS

## OFFICE OF GENERAL COUNSEL

**OIL & GAS DOCKET NO. 01-0272349**

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**THE APPLICATION OF CHESAPEAKE MIDSTREAM DEVELOPMENT, LP TO CONSTRUCT AND OPERATE A HYDROGEN SULFIDE GAS PIPELINE, VERHEUL TRUNKLINE, DILLEY SOUR GAS GATHERING SYSTEM, DIMMIT AND ZAVALA COUNTIES, TEXAS**

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**APPLICATION REVIEWED BY:** Brian K. Fancher - Technical Examiner  
**DATE APPLICATION FILED:** September 02, 2011  
**DATE REVIEWED:** October 11, 2011

### EXAMINER'S REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

This is the unprotested application of Chesapeake Midstream Development, LP ("Chesapeake") for Commission authority to construct and operate a hydrogen sulfide (H<sub>2</sub>S) gas pipeline in Dimmit and Zavala Counties, pursuant to Statewide Rules 106, 70, and 36.

The Commission's Field Operations section has reviewed the application and has determined that the application complies with the applicable provisions of Statewide Rule 36. In addition, the Commission's Safety Division and Gas Services Division have reviewed the application. The examiner recommends approval of the application, as proposed by Chesapeake.

#### DISCUSSION OF THE EVIDENCE

Chesapeake proposes construction of a gas gathering pipeline to transport produced gas from the Verheul well sites into the Strait Trunkline with delivery for treatment at the Dilley Compression Facility and ultimately distributed into the Enterprise Pipeline. The proposed Verheul Trunkline will be an extension of the Dilley Sour Gas Gathering System. The line will be eight (8) inches in diameter and approximately 10.9 miles long. The line will carry a maximum of 18,000 MCFPD of gas containing up to 1,000 parts per million (ppm) of H<sub>2</sub>S. The maximum operating pressure will be 1,440 psig.

The 100 ppm radius of exposure ("ROE") is 615 feet and the 500 ppm ROE is 281 feet. The pipeline's proposed location is described as beginning approximately three (3) miles west of Big Wells, TX in Dimmit County, adjacent to FM 1867, and extending north into Zavala County along Tortuza Road.

The 100 ppm and 500 ppm ROEs include thirteen (13) public receptors consisting of three (3) dwellings, one (1) deer camp, eight (8) deer stands, and (1) public road, State Highway 85 (See attached area map). The applicant has submitted a contingency plan for the proposed gathering line that complies with the provisions of Statewide Rule 36(c)(9).

All materials will satisfy the requirements described in the latest editions of NACE Standard MR-0175-2003. The gathering line is constructed of API-5L-X52 FBE grade steel pipe. Chesapeake indicates pipeline maintenance will be provided by using pipeline inspection gauges or "pigs" in order to remove liquids and chemically treat the pipeline thus reducing the potential for internal corrosion. The pipeline is also protected from external corrosion by a cathodic protection system. The effectiveness of the internal and external corrosion control programs are monitored through the periodic inspection of corrosion coupons, analysis of liquids collected from the line, and inspection of the cathodic protection system. The line will be buried at a minimum of four (4) feet from the surface.

H<sub>2</sub>S warning signs compliant with Rule 36(c)(6)(A) will be posted along the right-of-way and road crossings, as well as intervals along the pipeline frequent enough as to provide warning to avoid accidental rupture of the line by excavation. The signs will indicate poison gas, company name and emergency phone numbers. All wells and facilities established as constituents of the proposed Verheul Trunkline will be in compliance with Rule 36(c)(6)(B).

The proposed pipeline will comply with Statewide Rule 36(c)(8). Chesapeake will use safety controls and automatic devices to prevent the over pressuring of the pipeline and reduce any escaping gases. The proposed pipeline will be equipped with low and high level shutdown systems at each wellhead. Chesapeake indicates in Section 1.1 of its submitted contingency plan that hydrogen sulfide (H<sub>2</sub>S) monitors with audio and visual alarms will strategically be installed throughout the Dilley Compressor Facility to detect H<sub>2</sub>S escaping to the atmosphere. The monitors provide for both low and high level alarms, set at 10 ppm and 50 ppm. Chesapeake will also incorporate flares with a capacity up to 70 MCFGPD and relief valves into the proposed system, as constituents of their leak prevention and safety systems. Further, Chesapeake indicates compression station operations, pipeline pressures and pipeline flow rates are monitored remotely twenty-four hours a day through a SCADA gas detection system.

Chesapeake published notice of the application in a newspaper of general circulation in Dimmit and Zavala Counties. The notice was published in *The Carrizo Springs Javelin*, located in Dimmit County, on July 20, 2011 and filed with the Dimmit County Clerk on July 18, 2011. The notice was published in the *Zavala County Sentinel* on July 28, 2011 and filed with the Zavala County Clerk on July 27, 2011.

**FINDINGS OF FACT**

1. The Commission's Field Operations Section recommends approval. The Commission's Pipeline Safety Division and Gas Services Division have reviewed the application.
2. Chesapeake proposes construction of a gas gathering pipeline, an extension of the Dilley Sour Gas Gathering System, to transport produced gas from the Verheul well sites into the Strait Trunkline with delivery for treatment at the Dilley Compression Facility and ultimately distributed into the Enterprise Pipeline.
  - a. The line will be eight (8) inches in diameter and approximately 10.9 miles in length.
  - b. The line will carry a maximum 18,000 MCFPD of gas containing up to 1,000 parts per million (ppm) of H<sub>2</sub>S.
  - c. The maximum operating pressure will be 1,440 psig.
  - d. The 100 ppm ROE is 615 feet and the 500 ppm ROE is 281 feet.
  - f. The 100 ppm and 500 ppm ROEs include thirteen (13) public receptors consisting of three (3) dwellings, one (1) deer camp, eight (8) deer stands, and (1) public road, State Highway 85.
3. Pipeline materials and construction meet the NACE and API standards as required by Statewide Rule 36 for hydrogen sulfide service.
4. The submitted contingency plan for the line is in accordance and complies with the provisions of Rule 36(c)(9).
5. The pipeline will be constructed subject to Commission inspections for compliance with the appropriate Commission Rules pursuant to Statewide Rule 36(c)(6),(7),(8), and (13).
6. On September 02, 2011, Chesapeake filed an application for a permit to construct a hydrogen sulfide gas gathering pipeline identified as the Verheul Trunkline in Dimmit and Zavala Counties.
7. Chesapeake published notice of the application in a newspaper of general circulation in Dimmit and Zavala Counties on July 20, 2011 and July 28, 2011, respectively. The notices were published in *The Carrizo Springs Javelin* and the *Zavala County Sentinel*, respectively. The application was filed with the Dimmit County Clerk on July 18, 2011 and the Zavala County Clerk on July 27, 2011.

**CONCLUSIONS OF LAW**

1. Proper notice was timely given to all parties entitled to notice pursuant to applicable statutes and rules.
2. All things have occurred and have been accomplished to give the Commission jurisdiction in this case.
3. The application complies with Statewide Rules 36, 70, and 106.
4. Approving the application for a permit to construct and operate the proposed gas pipeline is consistent with the rules and safety standards adopted by the Commission.

**EXAMINER'S RECOMMENDATION**

The examiner recommends that the application of Chesapeake Midstream Development, LP for Commission authority pursuant to Statewide Rules 106, 70, and 36, to construct and operate the proposed hydrogen sulfide gas pipeline in Dimmit and Zavala Counties, be approved.

Respectfully submitted,



Brian K. Fancher  
Technical Examiner