



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 8A-0300661

**THE APPLICATION OF BRAVO PIPELINE COMPANY (P-5 OPERATOR NO. 089909)
TO CONSTRUCT AND OPERATE A HYDROGEN-SULFIDE GAS PIPELINE, THE
SUNDOWN UNIT SOUR CO₂ SUPPLY LINE, SLAUGHTER FIELD, HOCKLEY
COUNTY, TEXAS**

APPLICATION REVIEWED BY: Brian Fancher – Technical Examiner
DATE APPLICATION FILED: May 24, 2016
DATE APPLICATION RECEIVED: September 15, 2016
DATE REVIEWED: October 13, 2016
CONFERENCE DATE: October 25, 2016

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

The subject application is unopposed. As a result, a public hearing was not held to consider the captioned docket. All information used to compose this Examiners' Report and Recommendation was utilized from the captioned docket's physical file.

Bravo Pipeline Company (Bravo) seeks authority to construct and operate its proposed hydrogen-sulfide (H₂S) gas pipeline, the Sundown Unit Sour CO₂ Supply Line (Pipeline). As applied for by Bravo, the Pipeline is designated as a new system intended to transport materials that include carbon dioxide (CO₂) and H₂S liquids.¹ The Pipeline will consist of pipe that measures 12^{3/4}" and 6^{5/8}" outer diameter. It will extend 5.75 miles in total length, and carry up to 7,000 parts per million H₂S while transporting up to 176,700,000 cubic feet of CO₂ day (176,700 MCFGD). The subject application was made pursuant to 16 Tex. Admin. Code §§3.36, 3.70, and 3.106 ("Statewide Rules 36, 70, and 106).

The Commission's Oil and Gas Division reviewed the subject application, and concluded that it satisfies the applicable provisions of Statewide Rules 36 and 106. The Commission's Pipeline Safety Division has also reviewed the subject application, with respect to Statewide Rule 70, and determined it satisfactory. Accordingly, the examiner recommends that the subject application be granted, as requested by Bravo.

¹ See Bravo's Form PS-48 with "Date Report Sent" of May 13, 2016 and date stamped by the Oil and Gas Division's Field Operations on May 24, 2016.

DISCUSSION OF THE APPLICATION AND GOVERNING RULES

On May 24, 2016, Bravo submitted its original application for the Pipeline to the Commission's Oil and Gas Division that included several requisite filings. Bravo's Form PS-79 (Application for a Permit to Construct a Sour-Gas Pipeline Facility), Form T-4A (Application for Permit to Operate a Pipeline in Texas), and Form H-9 (Certificate of Compliance, Statewide Rule 36). That information indicates that the Pipeline is located solely in Hockley County, Texas.

On May 18, 2016, the subject application was published in the *Leveland & Hockley County News-Press*, a newspaper of general circulation Hockley County, Texas.² A copy of the subject application was submitted to the Hockley County Clerk's Office on May 4, 2016. Bravo also submitted a copy of a receipt dated May 16, 2016 from the Hockley County Clerk's Office.

The Pipeline is composed of two different pipe diameters – 12^{3/4}" and 6^{5/8}". Bravo estimates that the 12^{3/4}" section will extend 2.57 miles in length. The Pipeline's 6^{5/8}" section will span 3.18 miles. With regard to the Pipeline's 12^{3/4}" section, Bravo calculated the 100 and 500 ppm Radii of Exposure (ROE) of H₂S, measured from the center of the Pipeline, will extend 849 feet and 388 feet, respectively³. Bravo incorporated a maximum escape volume of 4,300 MCFGD to calculate those ROEs. In other words, Bravo estimates that if the estimated maximum escape volume (4,300 MCFGD) is released along any point within the 12^{3/4}" section of the Pipeline, then H₂S at concentrations of 100 ppm and 500 ppm will extend roughly 849 feet and 388 feet from the Pipeline, respectively⁴. With regard to the Pipeline's 6^{5/8}" section, Bravo calculated the 100 and 500 ppm ROE of H₂S will extend 271 feet and 124 feet, respectively.

Bravo submitted a H₂S Contingency Plan (Plan) that outlines Bravo's emergency response plan in the event an unforeseen release of gas occurs along the Pipeline. The Plan indicates the Pipeline will transport sour-CO₂ from the Anton CO₂ West RKM Unit. The Plan describes that the Pipeline's 100 ppm ROE does not impact a residence. The Pipeline's 500 ppm ROE, however, encompasses a barn that is uninhabited.⁵ The Plan also details that the Pipeline's 500 ppm ROE transects Justin Road, Maverick Road, Farm to Market 1585, Roughneck Road, Rawhide Road, Farm to Market 303, Mineral Road, Sagebrush Road, and Hard Hat Road.⁶ Requisite H₂S warning signs and operator emergency contact information will be posted at all road crossings, access roads, and along the Pipeline's right-of-way.⁷

Bravo's application for the Pipeline indicates that it will be constructed of American Petroleum Institute 5L PSL2 X52 steel pipe. Bravo will manage external corrosion of the Pipeline with external coating and cathodic protection. The pipeline will meet the applicable requirements found in ASTM, American National Standards Institute, API and National Association of Corrosion Engineers' MR-01-75 for H₂S operations.

² See Affidavit of Publication signed on May 19, 2016 by Pat Henry.

³ See Form H-9 dated May 31, 2016.

⁴ These estimations do not appear to take wind direction or weather patterns into consideration.

⁵ See Bravo's H₂S Contingency Plan, Pg. 4.

⁶ *Id.*

⁷ See Internal Memorandum from the Oil & Gas Division dated September 2, 2016 with Docket Services' stamp date October 17, 2016; Pg. 2.

FINDINGS OF FACT

1. Bravo Pipeline Company ("Bravo") seeks to construct its proposed Sundown Unit Sour CO₂ Supply Line (Pipeline), located in Hockley County, Texas (Subject Application).
2. On May 18, 2016, the subject application was published in the *Leveland & Hockley County News-Press*, a newspaper of general circulation Hockley County, Texas.
3. A copy of the subject application was submitted to the Hockley County Clerk's Office on May 4, 2016. Bravo also submitted a copy of a receipt dated May 16, 2016 from the Hockley County Clerk's Office.
4. The Pipeline is designated as a new system intended to transport materials that include carbon dioxide (CO₂) and hydrogen-sulfide (H₂S) liquids.
5. The Pipeline will consist of pipe that measures 12^{3/4}" and 6^{5/8}" outer diameter, and it will extend roughly 5.75 miles in total length.
6. The Pipeline will transport up to 176,700,000 cubic feet of CO₂ (176,700 MCFGD) that contains up to 7,000 parts per million (ppm) of H₂S.
7. Bravo calculated the Pipeline's maximum escape volume is 4,300 MCFGD in determining its 100 ppm and 500 ppm radii of exposures (ROEs).
8. With regard to the Pipeline's 12^{3/4}" section, Bravo estimates the 100 ppm and 500 ppm ROEs of H₂S will extend roughly 849 feet and 388 feet from the center of the Pipeline, respectively.
9. With regard to the Pipeline's 6^{5/8}" section, Bravo calculated the 100 and 500 ppm ROE of H₂S, measured from the center of the Pipeline, will extend 271 feet and 124 feet, respectively.
10. Bravo submitted a copy of its H₂S Contingency Plan for the Pipeline (Plan).
11. The Plan outlines that the Pipeline's 100 ppm ROE does not impact a residence.
12. The Plan outlines that the Pipeline's 500 ppm ROE encompasses a barn that is uninhabited.
13. The Plan outlines that the Pipeline's 500 ppm ROE transects Justin Road, Maverick Road, Farm to Market 1585, Roughneck Road, Rawhide Road, Farm to Market 303, Mineral Road, Sagebrush Road, and Hard Hat Road.
14. Bravo evidenced that H₂S warning signs and operator emergency contact information will be posted at all road crossings, access roads, and along the Pipeline's right-of-way.

15. Materials used to construct the Pipeline will satisfy the latest editions of the National Association of Corrosion Engineers standard MR-01-075.
16. Material to be used in, and the method of construction and operation of the Pipeline, comports with the Commission's applicable rules and safety standards.
17. The Commission's Oil and Gas Division and Pipeline Safety Division have reviewed the subject application and recommend approval.

CONCLUSIONS OF LAW

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas – Tex. Nat. Res. Code §81.051.
2. Legally sufficient notice has been provided to all affected persons - 16 Tex. Admin. Code §3.106.
3. Pipeline materials and construction of the Pipeline meets the NACE standards - 16 Tex. Admin. Code §3.36.
4. Bravo's subject application meets the requirements set forth in 16 Tex. Admin. Code §§3.36, 3.70, and 3.106.

EXAMINER'S RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiner recommends that the application of Bravo Pipeline Company for Commission authority to construct and operate its proposed Sundown Unit Sour CO₂ Supply Line be granted.

Respectfully,



Brian Fancher
Technical Examiner