# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION COMMISSION

APPLICATION FOR AMENDMENT TO ORDERS R-13052, R-13052-A, SWD-1654, SWD-1671 TO INCREASE THE APPROVED AGGREGATE DAILY INJECTION RATE FOR TARGA MONUMENT AGI SYSTEM FROM 2.5 TO 5.0 MMSCFD, LEA COUNTY, NEW MEXICO

CASE NO. 15740 ORDER NO. <u>*R-* / 36 52</u> - B

#### ORDER OF THE COMMISSION

THIS MATTER came before the New Mexico Oil Conservation Commission ("Commission") on the application of Targa Midstream Services LLC ("Targa") to amend orders R-13052, R-13052-A, SWD-1654, SWD-1671 to increase the approved aggregate daily injection rate for the Targa Monument AGI system from 2.5 to 5.0 MMSCFD. The Commission, having conducted a hearing and deliberated on July 13, 2017, and having considered the testimony, the record, and the arguments of the parties, and being otherwise fully advised, enters the following findings, conclusions and order.

## **THE COMMISSION FINDS THAT:**

- 1. Notice has been given of the application and the hearing of this matter, and the Commission has jurisdiction of the parties and the subject matter herein.
- 2. On May 25, 2017, Targa filed an application for hearing seeking authority to increase the injection rate of treated acid gas ("TAG") from 2.5 million standard cubic feet per day (MMSCFD) to a maximum rate of 5.0 MMSCFD through either or both the Monument AGI D Well No. 2 and/or the Monument AGI D Well No. 3 at its Monument Plant. Injection will be into the target injection zones in the Devonian and Silurian formations as provided in approved Administrative Orders SWD-1654, as to the AGI D Well No. 2, and SWD-1671, as to the AGI D Well No. 3.
- 3. Targa proposed that all other operational conditions imposed by SWD-1654 and SWD-1671, including the maximum allowable operating pressure of 3,000 psig, remain unchanged.
- 4. Targa provided individual notice, via certified mail, return-receipt requested, of the submission of its application and the Commission hearing to all affected parties within a one-mile radius of the bottom-hole location for the subject wells.
- 5. The Division provided public notice pursuant to Rule 19.15.4.9.B.3 NMAC.
- 6. No objections to the application were filed. No other parties entered an appearance.
- 7. In support of the application, Targa presented direct testimony from two witnesses: one fact witness, James Lingnau, Targa's Permian Region Engineering Manager, and a technical witness, James C. Hunter, RG, Senior Geologist with Geolex, Inc.

- 8. James Lingnau testified that the Targa Monument Plant has been injecting TAG since 2011. Monument AGI D Well No. 2 has been injecting TAG since March 2017. Monument AGI D Well No. 3 has been permitted and approved, but has not been drilled. The Monument Plant has capacity to process up to 85 MMSCF of gas per day, and to dispose of up to 5.0 MMSCF of TAG per day. However, the Monument Plant is unable to currently utilize its full processing and TAG disposal capacity due to the 2.5 MMSCFD limitation on the injection rate imposed by Administrative Orders SWD-1654 and SWD-1671.
- 9. Mr. Lingnau testified that, based upon Targa's projections, demand for gas processing and TAG disposal will soon exceed the Monument Plant's TAG disposal capacity unless the injection rate limitation of 2.5 MMSCFD is increased to 5.0 MMSCFD. He testified that growing demand is due to increasing drilling activity in the area served by the Monument Plant in combination with a higher concentration of carbon dioxide in the produced gas, which results in an increased volume of TAG.
- 10. He testified that an increase in the authorized injection rate to 5.0 MMSCFD is necessary for Targa to meet the growing demand for gas processing and TAG disposal services from operators in the field upstream from the Monument Plant. The requested increased injection rate will help avoid the potential for production well shut-ins and flaring in the field and other potential operational disruptions.
- 11. Targa's technical witness, James C. Hunter, RG, was qualified by the Commission as an expert witness in petroleum geology, AGI well design and operations, and reservoir injection modeling, based on his education, training, and experience.
- 12. He testified that newly drilled wells in new zones are producing gas with higher concentrations of carbon dioxide and that the amount of gas in requiring processing also has increased, creating the need for additional TAG disposal capacity.
- 13. Since the Monument AGI D Well No. 2 began injecting in March 2017 and through May 2017, the average injection rate has been 1.36 MMSCFD, and the maximum injection rate has been 2.15 MMSCFD. Injection rates for June 2017, however, have been increasing, approaching the 2.5 MMSCFD limitation.
- 14. The average surface injection pressure was 1,707 psig with a maximum injection pressure of 1,961 psig, which is more than 1,000 psig below the 3,000 psig permit limitation.
- 15. Mr. Hunter testified that the 2.5 MMSCFD permit limitation is probably a remnant from the order approving original AGI well, Monument AGI No. 1, which was authorized to inject wet TAG at a maximum rate of 1,400 barrels per day. That rate converts to approximately 2.5 MMSCFD of TAG at normal surface temperatures and pressures.
- TAG plume increases from 0.33 miles to 0.47 miles over a 30-year period. Mr. Hunter applied the calculated 0.47 mile TAG plume to the one-mile area of review for both the Monument AGI D Well No. 2 and Monument AGI D Well No. 3. This analysis shows that only two additional wells, which penetrate the injection zone and are within the one-mile areas of review for each AGI well, fall within the calculated 0.47 mile TAG plume radius: (1) J. R. Phillips 005 Well (API No. 30-025-04134); and (2) the North Monument G/SA Unit 286 Well (API No. 30-025-20517). Both wells are properly completed and cemented across the injection interval.

- 17. Mr. Hunter further testified that, in his opinion, the proposed increased injection rate does not pose a threat to any underground source of drinking water or other fresh water source. As part of the original C-108 applications for both subject Monument AGI wells and in support of this application, Mr. Hunter reviewed the available geologic data for the target injection zone and surrounding formations and determined that the injection zone is suitable for injection and permanent disposal of TAG at the proposed increased injection rate of 5.0 MMSCFD. Based on this review, he testified that the target injection zone is expected to safely contain the injected TAG.
- 18. Mr. Hunter opined that granting the application and increasing the injection rate will not result in waste, nor will it impair correlative rights; rather, it promotes conservation because it will allow the Monument Plant to meet growing demand for gas processing and TAG disposal.
- 19. Since Orders R-13052 and R-13052-A only apply to Monument AGI Well No. 1, which is not the subject of this hearing, no changes will be made to those Orders.

#### **THE COMMISSION CONCLUDES THAT:**

- 1. The Commission has jurisdiction, under the Oil and Gas Act, over the parties and the subject matter of this case.
  - 2. Proper public notice has been given.
- 3. Proper individual notice has been given to all affected parties within a one-mile radius of the bottom-hole location of the proposed injection wells.
- 4. Substantial evidence supports Targa's request for a maximum TAG injection rate of 5.0 MMSCFD. No other changes to the operational conditions or exceptions to Administrative Orders SWD-1654 and SWD-1671 were requested.
- 5. Targa's injection of TAG can be conducted in a safe manner without causing waste, impairing correlative rights, negatively impacting oil and gas producing zones, or endangering fresh water.

## **IT IS THEREFORE ORDERED THAT:**

- 1. Targa's application to increase the maximum TAG injection rate from 2.5 MMSCFD for wells Monument AGI D Well No. 2 and Monument AGI D Well No. 3 to 5.0 MMSCFD for both wells combined is approved.
- 2. Accordingly, Administrative Orders SWD-1654 and SWD-1671 are hereby modified to provide that the combined aggregate wellhead injection rate shall be limited to no more than 5.0 MMSCFD of TAG through either or both Monument AGI D Well No. 2 and/or Monument AGI D Well No. 3.
- 3. All other operational conditions imposed under Administrative Order SWD-1654 and SWD-1671 shall remain unchanged.
- 4. Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state, or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

DONE at Santa Fe, New Mexico, on this 10th day of August, 2017.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

DAVID R. CATANACH, CHAIR

ROBERT BALCH, MEMBER

ED MARTIN, MEMBER

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