

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

**APPLICATION OF TARGA NORTHERN DELAWARE
LLC FOR AUTHORIZATION TO INJECT,
LEA COUNTY, NEW MEXICO**

**CASE NO. 23649
ORDER NO. R-22843**

ORDER OF THE COMMISSION

THIS MATTER comes before the New Mexico Oil Conservation Commission (“Commission”) on Targa Northern Delaware LLC’s (“Targa”) *Application for Authorization to Inject, Lea County, New Mexico* (“Application”). The Commission, having conducted a hearing on July 13, 2023, and having considered the testimony and the record in this case, enters the following findings of fact, conclusions of law, and order.

FINDINGS OF FACT

1. On June 12, 2023, Targa filed its Application seeking authorization to inject treated acid gas (“TAG”) from its Red Hills Gas Processing Plant (“Plant”) into the proposed Red Hills AGI No. 3 well (“AGI 3” or “Well”).
2. The Well will be a vertical well, located in Section 13, Township 24 South, Range 33 East, Lea County, New Mexico, with an approximate surface and bottom hole location at 1,338’ FNL and 354’ FEL.
3. The Well is an Underground Injection Control (“UIC”) Class II well subject to the requirements of 19.15.26 NMAC.
4. The target injection zone is the Bell Canyon and Cherry Canyon formations of the Delaware Mountain Group at a depth of approximately 5,700 feet to 7,600 feet.
5. The Well’s maximum daily injection rate is thirteen (13) million standard cubic feet per day (“MMSCFD”).
6. The Well’s maximum surface injection pressure is approximately 1,767 pounds per square inch gauge (“psig”).
7. The surface location of the Well is within the Plant’s boundary.
8. Targa operates its Red Hill AGI #1 well (“AGI 1”) at the Facility under Order No. R-21679-G, but the injection capacity of AGI 1 is limited.
9. Targa began drilling the Red Hills AGI #2 well (“AGI 2”) under Order No. R-20916-H, but completion of the well has been postponed due to technical complications. Targa has

submitted an administrative request to the Commission to extend the deadline to commence injection into AGI 2 from October 2023 to October 2024.

10. Targa requires the injection capacity of AGI 3 to serve the Facilities.
11. Without the injection capacity of AGI 3, Targa will be required to shut-in wells, or alternatively, to vent or flare natural gas, which will result in waste and violate correlative rights.
12. Targa gave personal notice of the Application and the Commission's hearing via certified mail, return receipt requested to all operators, surface owners, and lessees within a one-mile radius of the location of the Well.
13. The Commission gave public notice of the Application and the Commission's hearing by publication in a newspaper of general circulation in Lea County.
14. The Oil Conservation Division ("OCD") is an interested party in this proceeding.
15. EOG Resources, Inc. ("EOG"), filed its Entry of Appearance on June 23, 2023.
16. ConocoPhillips Company ("COPC") filed its Entry of Appearance on June 26, 2023.
17. Matador Production Company ("Matador"), filed its Entry of Appearance on July 5, 2023.
18. EOG, COPC, and Matador do not object to Targa's Application, and no party filed a pre-hearing statement.
19. At the July 13, 2023 hearing, counsel for OCD stated that OCD does not oppose the Application but proposed permit conditions that would require Targa to drill and complete a Devonian-Silurian (Devonian) AGI, which would subsequently become the primary injection well. OCD also proposed a condition that would require Targa to construct and operate AGI 3 with the same conditions detailed for the proposed original AGI well, including well construction with corrosion resistant ("CR") material, monitoring requirements, and adjusted operating conditions for the shallower injection depth. OCD further recommended that the order authorize the OCD Director to administratively extend the deadline to commence injection into AGI 3 for good cause.
20. Counsel for EOG, COPC, and Matador objected to OCD's proposed permit conditions regarding the drilling and completion of a Devonian AGI well.
21. In support of the Application, Targa presented the testimony of four witnesses: Matthew Eales, Vice President of Regulatory Affairs, Targa Northern Delaware LLC; Dana Ulmer-Scholle, Ph.D, Research Scientist, Geology, New Mexico Institute of Mining and Technology; Paul Ragsdale, Engineering Consultant; and David Tu, Ph.D, Petroleum Engineer, New Mexico Institute of Mining and Technology.

22. Mr. Eales provided background regarding Targa, including its current and future H₂S treating investment and natural gas infrastructure. Mr. Eales also testified regarding the benefits of disposing of TAG through an AGI well. Specifically, Mr. Eales testified that an AGI well allows for the sequestration of CO₂ and eliminates flaring as a control for sulfur derived from the processing of sour gas. Mr. Eales testified that in his opinion, Targa's proposal to dispose of TAG through the Well will protect public health and the environment and result in more efficient operation of the Plant. Mr. Eales explained that Targa currently operates AGI 1 at the Plant and will use the Well to dispose of TAG and, upon completion of AGI 3, will use AGI 1 as a redundant well.

23. Dr. Ulmer-Scholle testified regarding the site geology and hydrogeology and stated that in her opinion, the proposed injection zone provides a sufficient capacity and geologic seal to contain the injected TAG and prevent its migration into other zones; the injection zone is sufficiently isolated from any protectable groundwater sources; there is no evidence that injection will impair existing or potential hydrocarbon production in the area; and the Well will not increase the risk of induced seismicity.

24. Mr. Ragsdale testified regarding the wellbore design for the AGI 3, as well as the drilling, completion, and monitoring plan. Mr. Ragsdale also testified about the casing and tubing design, the casing specifications, the cement design for the Well, and the coring and monitoring program that would be implemented by Targa, which includes routine daily inspection of the wellhead and tubing.

25. Dr. Tu testified about the reservoir dynamic simulations completed to assess the impact of acid gas injection into the target Bell Canyon and Cherry Canyon formations, the resultant acid gas plume, and the pressure profile. Dr. Tu testified that in his opinion, the Well will not pose health and safety risks, and the Well will not cause waste or damage correlative rights in any formations in the area.

26. The Well will facilitate the sequestration of TAG, which is in the public interest.

27. The Bell Canyon and Cherry Canyon formations can receive TAG at the proposed injection rate.

28. The formation will safely contain the injected TAG volume within the proposed injection and post-injection timeframe.

29. No party opposes approval of the AGI 3 well.

30. OCD recommends a redundant AGI well to the AGI 1 well to avoid flaring and venting TAG should there be a disruption of injection into the AGI 1 well.

31. OCD agrees to withdraw its proposed permit conditions referenced at the July 13, 2023 Commission meeting. In lieu of the proposed conditions, Targa and OCD agree that injection authority for AGI 3 shall be limited to twenty years from the date of this Order. This limitation shall be imposed in order to prevent the acid gas plume from passing beyond the surface boundaries

of the natural gas plant, mitigating any effect on correlative rights. Further, Targa and OCD agree that Targa shall disclose to the OCD the testing and monitoring information obtained during operation of the AGI 3 every five years or more often, as information becomes practically available.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the Parties and the subject matter of this case.
2. Proper public notices of the Application were given.
3. The Application is complete.
4. Targa's request for the AGI 3 Well will comply with the requirements of 19.15.26 NMAC, and will not result in waste, impair correlative rights, or harm the public health and environment.

ORDER

1. The Application is approved, and Targa is authorized to drill and operate the Well with an approximate surface and bottom hole location at 1,338' FNL and 354' FEL, located in Section 13, Township 24 South, Range 33 East, Lea County, New Mexico, to dispose of TAG at a maximum daily injection rate of thirteen (13) million standard cubic feet per day ("MMSCFD") into the Bell Canyon and Cherry Canyon formations of the Delaware Mountain Group at a depth of approximately 5,700 feet to 7,600 feet and a maximum surface injection pressure of approximately 1,767 pounds psig.

2. Targa shall conduct an annual mechanical integrity test (MIT) on the proposed well.
3. Targa shall conduct continuous monitoring of surface TAG injection pressure, temperature, rate, surface annular pressure, and bottom-hole (or "end of tubing") temperatures and pressures in the tubing and annulus.
4. Targa shall conduct step-rate and fall-off tests on the completed Well before commencing injection. Targa may adjust the maximum surface injection pressure for the Well after these tests with OCD's written approval.
5. Targa shall maintain a maintenance log, including the volume of annular fluid (diesel) replaced in the annulus of the Well.
6. Targa shall establish temperature parameters for injected fluid, install and maintain temperature-activated controls to govern the temperature of injected fluid, and install and maintain an alarm system for the controls to indicate exceedance of the parameters.
7. Targa shall report to OCD on a quarterly basis the summary data for injection parameters monitored under the permit, and upon request by OCD, shall submit annual reports after each year of operation. This report shall include the composition and volume of the acid gas injected into the Well.

8. Targa shall equip the well with a pressure-limiting device and a one-way safety valve (with the appropriate interior drift diameter) on the tubing approximately 175 feet below the surface.

9. Targa shall use a corrosion-inhibiting diesel with a biocide component as the annular fluid of the Well.

10. Targa shall circulate cement for all casing to the surface.

11. Well construction shall be designed for exposure to corrosive environment including the casing, casing cement, tubing, and packer in proximity of the approved injection interval.

12. Prior to commencing injection, Targa shall obtain OCD's approval of a hydrogen-sulfide contingency plan that complies with 19.15.11.9 NMAC, and that includes a contingency plan for and a GIS mapping layer showing the gathering lines associated with the natural gas processing plant(s) served by the Well.

13. No later than 30 days prior to commencing injection, Targa shall obtain OCD's approval of immediate notification parameters for annulus pressure and tubing and casing differential pressure at a set injection temperature.

14. No later than 45 days after Targa completes the drilling of the Well, Targa shall submit to OCD's district office the well drilling logs including mudlogs, electric logs, daily reports, and static bottom-hole pressure measured at completion of drilling the Well.

15. No later than 45 days after completion of the Well, Targa shall submit to OCD the final reservoir evaluation and confirm that the open-hole portion of the Well does not intersect the fault plane of any identified fault that occurs within the approved injection interval.

16. No later than 90 days after commencing injection, and no less frequently than annually thereafter, Targa shall consult with OCD regarding the immediate notification parameters. If OCD determines that the immediate notification parameters should be modified, Targa shall provide modified parameters within 30 days of notification for review by OCD.

17. No later than 30 days after the fifth year of injection, Targa shall submit to OCD a report summarizing the Well's performance, including injected volumes by fluid type, change in reservoir pressures, the models used in the Application calibrated using that information, and seismic modeling. Targa shall provide an in-person presentation of the report to the Commission at its request.

18. Targa shall construct the Well in accordance with the specifications stated in the C-108 application, including the use of corrosion-resistant casing or cement in the proposed injection interval in the Bell Canyon and Cherry Canyon formations and the existing injection interval for the Red Hills AGI No. 1 well (API No. 30-025-40448) in the Delaware Mountain Group.

19. Targa shall install, operate, and monitor for the life of the permit a seismic monitoring station or stations as directed by the Manager of the New Mexico Tech Seismological Observatory (“state seismologist”) at the New Mexico Bureau of Geology and Mineral Resources. OCD shall be responsible for coordinating with the state seismologist for appropriate specifications for the equipment and the required reporting procedure for the monitoring data.

20. The injection authority herein granted shall terminate two years after the effective date of this order if Targa has not commenced injection operations. The OCD Director, upon written request of Targa submitted prior to the expiration of this order, may extend this time for good cause shown.

21. In the event Targa transfers ownership of the Well, Targa shall seek approval of such change in ownership from the OCD pursuant to 19.15.9.9 NMAC.

22. Targa shall provide to the OCD, at least once every five years, all testing and monitoring data related to the AGI 3 in a milestone report. This shall include any changes to the plume modeling and any data or measurements supporting such changes.

23. After twenty (20) years from the date of the Commission’s order in this case, the authority granted by this order shall terminate unless applicant, or its successor in interest, shall make application before the Commission for an extension of its authority to inject.

DONE at Santa Fe, New Mexico on the 22nd day of August, 2023.

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**

Gregory B. Bloom

Greg Bloom, Commissioner

William Ampomah

William Ampomah, Ph.D, Commissioner

Dylan Fuge

Dylan Fuge, Chair