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

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 14161
ORDER NO. R-13052

APPLICATION OF TARGA MIDSTREAM SERVICES, LIMITED PARTNERSHIP, FOR APPROVAL OF AN ACID GAS INJECTION WELL, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on August 7, 2008, at Santa Fe, New Mexico, before Examiner William V. Jones, and again on September 18, 2008, before Examiners Richard Ezeanyim and David K. Brooks.

NOW, on this 18th day of November, 2008, the Division Director, having considered the testimony, the record, and the recommendations of the Examiners,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Targa Midstream Services Limited Partnership ("Targa"), seeks authority to inject waste water and acid gas (hydrogen sulfide and carbon dioxide) into the Devonian and Fusselman formations through an open hole from approximately 8350 feet to 9200 feet below the surface, through its proposed Monument AGI Well No. 1 which it proposes to drill at a location 662 feet from the South line and 2513 feet from the East line (Unit O) of Section 36, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico.

(3) The proposed Acid Gas injection well will replace the Graham State NCT-F Well No. 7 (API No. 30-025-12482) for disposal of plant waste waters. The Graham State NCT-F Well No. 7 is located 330 feet from the South line and 1650 feet from the East line of Section 36 and was approved June 3, 1994, as a saltwater disposal well into the San Andres formation under administrative orders SWD-561 and SWD-561-A.

(4) Targa Resources LLC filed its application (Division Form C-108) on June 6, 2008. No protests were received from the noticed parties, but the application was reviewed and comments from the engineering bureau were supplied to the applicant. At the direction of the Director of the Division, the application was set for hearing before a Division Examiner pursuant to the provisions of Division Rule 701.D. The case presented to the examiner is identical to that reviewed earlier in that the proposed well location and injection depths are the same.

(5) This case was heard on August 7, 2008, then continued and re-advertised. On September 18, 2008, the case was again presented to the Division, at which time the applicant included proof of notice and additional exhibits.

(6) Momentum Operating Co. Inc. appeared at the August 7 hearing through counsel and questioned witnesses from Targa. Momentum's counsel indicated that Momentum was not supporting or objecting to Targa's application.

(7) No other parties entered appearances in this case or otherwise opposed this application.

(8) Targa presented the following testimony from a geologist and plant engineer:

(a) The CO2 and H2S concentration in Targa's inlet gas stream has been increasing in recent years. The Sulfur Recovery Unit is now operating at capacity, and the proposed injection well is needed in order to largely replace operation from the SRU and to enable the plant to handle additional gas volumes.

(b) The proposed well would be located on plant property, on the east side between the plant and the existing Flare. The surface owner of the well site is Versado Gas Processors LLC.

(c) Notice of this application and of this hearing was presented by the applicant to all affected parties as per Division Rule 701.B(2) with the modification that notice was expanded and provided to parties within a 1 mile radius and all surface owners and residences within 1 mile. Only one notice was returned un-opened. The applicant also posted notice in the Hobbs newspaper.

(d) The purpose of the injection is to dispose of all gas processing wastes from Targa Resources LLP's Monument Gas Plant, including waste water, CO2, and H2S. The CO2 and H2S will be compressed and then mixed with waste water prior to injection into the proposed well. The total gas volumes are expected to range from 2.7 MMscfpd (21 percent H2S, 69 percent CO2) to 3.4 MMscfpd (28 percent H2S, 62 percent CO2).

(e) There will be safety back flow valves placed in the flowline after the compressor and in the injection tubing below the wellhead. All casing strings

will be circulated with cement. The 3-1/2 inch injection tubing will be plastic coated, and the tubing-casing annulus will be kept loaded with diesel and monitored. The compressed gas and water mixture is expected to stay in liquid phase if it remains over 1150 psi, and therefore be less corrosive. Targa is asking for 1,660 psi maximum surface injection pressure.

(f) There is no production from the Devonian formation within 2 miles of the proposed well. The proposed well is on the southwest flank of an enclosed Devonian structure trending from northwest to southeast. The Devonian has been drill stem tested many times in this structure and never considered to be productive. The Devonian formation is expected to have adequate porosity and very good permeability and should take injected fluids for many years without the need for additional wellhead pressure.

(g) There are shallower Permian aged productive oil bearing horizons in this area and deeper Ordovician aged reservoirs that have also been productive. The Monument; McKee-Ellenburger (Prorated Gas) Pool (81400) covers all of Section 36 and Section 1 directly to the south and also all of Sections 5 and 6 to the southeast. However, there are at this time only two wells with active McKee and/or Ellenburger completions, and these are located in Section 6 to the southeast. The McKee formation is about 1200 feet deeper than the Devonian formation and is above the Ellenburger formation.

(h) There are three (3) plugged wells and eight (8) active wells that penetrate the proposed injection interval in the 1 mile area of review ("AOR"). Wellbore diagrams of all 11 wells were presented as part of the form C-108 with this case.

(9) There are no water wells which yield drinkable water in this vicinity, and the submitted water analysis indicates that shallow ground waters have total dissolved solids above the protectable limit. Nonetheless, the construction and operation of this well will prevent exposure of any existing shallow groundwater to these injection fluids.

(10) Prior to injection, the applicant should supply the Division with a more detailed "full-suite" analysis (methods 8260, 8270, 6010, 6020, and GenChem) of the liquid plant wastes being currently injected into the Graham State NCT-F Well No. 7 (API No. 30-025-12482).

(11) The applicant prepared and submitted an adequate form C-108 and included wellbore diagrams on all wells within the AOR. There are no apparent faults which penetrate the Devonian formation in the AOR and could possibly transport injected waters out of the injection interval. However, there is one well with inadequate existing cement plugs to ensure injected fluids are confined to the injection interval. The NMGSAU Well No. 285 (API No. 30-025-12481) operated by Apache Corporation has been plugged back from the original 10,303 feet total depth and is currently producing from the Eunice Monument; Grayburg-San Andres Pool. Prior to commencement of the

proposed acid gas injection, this well should be re-entered to 9,755 feet and re-plugged back to the base of the San Andres by placing additional cement plugs below and above the equivalent Devonian/Fusselman injection interval.

(12) The proposed well should have gauges installed to record pressures on the tubing and on the annulus. A continuous record should be maintained by the operator of these wellhead pressures and of injection rates and volumes of all components entering the well. With open hole injection beginning at 8,350 feet, the requested 1,660 psi injection pressure should not fracture the Devonian formation. Mechanical Integrity Testing of this well should be required every two years.

(13) The Division should allow the operator to apply administratively, after proper notice, for amendments to this order; except for amendments changing the depth of the injection interval or the injection formation.

(14) The Division concludes that Targa's proposed injection well should be approved, and the proposed injection operation can be conducted in a safe and responsible manner, without causing waste, impairing correlative rights or endangering fresh water, public health or the environment.

(15) The proposed operation is an environmentally superior means of disposing of wastes generated at the Monument Gas Plant because it will provide for the sequestration of the greenhouse gases: hydrogen sulfide and carbon dioxide.

IT IS THEREFORE ORDERED THAT:

(1) Targa Midstream Services Limited Partnership ("Targa" or "operator") is hereby authorized to inject for disposal purposes, gas processing wastes sourced only from its Monument Gas Plant, including waste water, hydrogen sulfide, and carbon dioxide, into its proposed Monument AGI Well No. 1 which will be drilled 662 feet from the South line and 2513 feet from the East line (Unit O) of Section 36, Township 19 South, Range 36 East, NMPM, in Lea County, New Mexico. Injection is permitted into the Devonian and Fusselman formations through an open hole interval from approximately 8350 feet to 9200 feet below the surface, through 3-1/2 inch plastic coated tubing set in a packer located within 100 feet of the top injection perforation.

(2) Prior to any injection, the NMGSAU Well No. 285 (API No. 30-025-12481) operated by Apache Corporation, shall be re-entered to 9755 feet and re-plugged back to the Grayburg-San Andres producing interval with placement of new cement plugs above and below the equivalent Devonian/Fusselman injection interval. Operations on this well shall be supervised by the Division's Hobbs district office and exact placement of the new cement plugs shall be determined after consultation with the Hobbs district geologist. Targa shall notify the engineering bureau of the Division in Santa Fe of completion of this work and receive written confirmation from the bureau prior to commencing injection into the Monument AGI Well No. 1.

(3) The applicant shall supply the Division with a detailed "full-suite" analysis of the liquid plant wastes being currently injected into the Graham State NCT-F Well No. 7 (API No. 30-025-12482).

(4) Targa shall obtain a permit to drill the Monument AGI Well No. 1 from the Hobbs district office. During drilling operations of the Monument AGI Well No. 1, Targa shall monitor the well for hydrocarbon shows, lost circulation zones, and water flows, and shall report any of these events to the Hobbs district office on (C-103) sundry forms.

(5) The well shall be drilled, cased, and cemented using information gathered during drilling and according to the requirements of the Hobbs district office. The design shall effectively isolate the injection fluid into the intended injection formation, isolate the Permian aged oil and gas producing intervals and the Salado salt with casing and cement, and cover all potential shallow ground water sands with two casing strings and at least one cement sheath. A cement bond log shall be run from total depth to the surface on any casing which did not circulate cement and also after cementing the final casing, even if cement did visually circulate.

(6) The tubing and packer shall be coated with material such as fiberglass or nickel, rated to protect against corrosion due to a mixture of water, carbon dioxide, and hydrogen sulfide or as required by the Hobbs district office. The tubing shall be equipped with a one-way, subsurface automatic safety valve placed 200 to 300 feet below the surface to prevent the injected acid gas from migrating to the surface in the event of an upset or emergency. A back pressure choke or other approved device shall be used to maintain pressure on the injection mixture and keep the mixture in a liquid phase. The well shall have gauges and valves installed to continuously record and control pressures on the tubing and on the tubing-casing annulus.

(7) The casing-tubing annulus shall be loaded with an inert, corrosion resistant fluid such as diesel or inhibited water [or as specified by the Hobbs district office] and equipped with a gauge and a leak detection device capable of determining any leakage in the casing, tubing, or packer.

(8) The operator shall notify the Hobbs district office of the time of the setting of the tubing and packer and of any mechanical integrity test so such operations can be witnessed or inspected.

(9) Mechanical integrity testing is required after installation of the injection tubing and prior to commencing injection operations, and at least once every two years thereafter.

(10) The surface injection pressure shall be limited to no more than 1,660 psi. The Director may administratively authorize an increase in this maximum surface injection pressure if the operator shows that a higher pressure will not result in formation fracturing or migration of injected fluids from the permitted injection formation. As

justification, the operator must submit results of an injection test such as a Step-Rate-Test to the Division and must provide notice thereof to affected persons, including offset operators in the overlying Permian aged formations.

(11) The operator of the well shall take all steps necessary to insure that injected fluids enter the proposed injection interval and do not escape to other formations or onto the surface.

(12) Without limitation on the duties of the operator as provided in Division Rules 19 and 116, or otherwise; the operator shall immediately notify the Hobbs district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

(13) Prior to commencing injection of acid gas, the operator shall prepare and secure approval by the Division's Environmental Bureau in the Santa Fe office of a hydrogen sulfide contingency plan that complies with Division Rule 118.

(14) The operator may commence injection of produced water prior to injection of acid gas and may inject either or both fluids pursuant to the limitations of this order, depending on operational considerations. The operator shall submit monthly reports of injection volumes of waste water and acid gas on Form C-115, in accordance with Division Rules 706 and 1115.

(15) The injection authority herein granted shall terminate one year after the effective date of this order if the operator has not commenced injection operations pursuant hereto; provided however, the Division Director, upon written request of the operator received by the Division prior to the end of the one year period of non-injection, may extend this time for good cause.

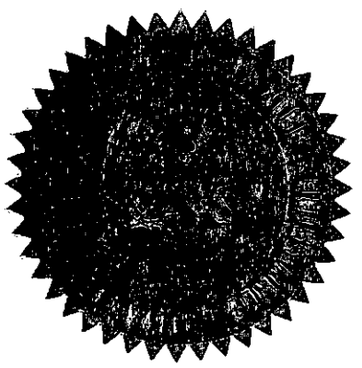
(16) Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

(17) At the discretion of the Division Director and after proper notice is provided, any proposed amendments or changes to this order may be granted administratively; provided however, proposed amendments to raise the depth of the injection interval or change the target injection formation may be granted only after notice and hearing.

(18) Jurisdiction is retained by the Division for the entry of further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (i) to protect fresh water or (ii) consistent with the requirements in this order, whereupon the Division may, after notice

and hearing (or without notice and hearing in event of an emergency, subject to NMSA 1978, Section 70-2-23), terminate the injection authority granted herein.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.
DIRECTOR