

Statement of Basis - Narrative

NSR Permit

Type of Permit Action: Regular-Significant Revision

Facility: Road Runner Gas Processing Plant
Company: Targa Northern Delaware LLC
Permit No(s): 7200M4 and No Title V permit Yet.
Tempo/IDEA ID No.: 36536 - PRN20220003
Permit Writer: Joseph Kimbrell

Fee Tracking (not required for Title V)

Tracking	NSR tracking entries completed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	NSR tracking page attached to front cover of permit folder: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Paid Invoice Attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Balance Due Invoice Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Invoice Comments: Paid In Full on 2/8/2023.

Permit Review	Date to Enforcement: N/A	Date of Enforcement Reply: N/A
	Date to Applicant: 2/13/23	Date of Applicant Reply: 2/15/2023
	Date to EPA: N/A	Date of EPA Reply: N/A
	Date to Supervisor: DRAFT-2/15/23; revised draft 7/14/2023	

1.0 Plant Process Description:

The Road Runner Gas Processing Plant is a natural gas processing plant located in Eddy County near Loving, NM. The primary function of the plant is to separate natural gas (methane) from heavier (liquid) hydrocarbons, raw sweet field gas so that the gas can meet pipeline specifications. The plant has been designated a primary Standard Industrial Classification (SIC) Code of 1311.

The operation of the Road Runner Gas Processing Plant is intended to process 735 MMscfd of gas. The gas will be treated to remove CO₂ and H₂S, dehydrated to remove water, and processed to remove heavy (liquid) hydrocarbons from the gas stream. Several plant systems will be involved to perform these functions.

Slug Catcher / Separator

A large slug catcher has been placed at the front of the plant to catch and separate any free hydrocarbon liquids and water present in the inlet pipeline gas stream. It is capable of handling large slugs of liquid brought into the plant from pipeline pigging operations. The equipment also serves as a three-phase separator to separate the free hydrocarbons, gas to be processed, and any water that may have condensed out in the pipeline after field dehydration.

Stabilizers

The overhead stabilization system is in place to lower the Reid Vapor Pressure (RVP) of the pipeline liquids and condensate after they are dropped out of the gas stream. Through a process that heats the condensate to flash off lighter hydrocarbons so the RVP is lowered to 9. The liquids out of the slug catcher are stabilized and sent to the tank farm for truck sales. Any remaining vapors are recycled back

to the front of the Slug Catcher. The liquid in the tank farm is then stable and thus does not give off significant flashing vapors. Significant working and standing losses will occur at the tank farm. These emissions will be controlled with a vapor combustor.

Amine Treating

The amine units are designed to remove CO₂ and H₂S (from the natural gas stream) to meet pipeline specifications. Streams containing up to 5 ppm H₂S will be processed at the plant. Amine treating is an exothermic chemical reaction process. The treating solution is a mixture of 50% RO water, 40% methyl-diethanolamine (MDEA) and 10% Piperazine. This aqueous mixture is regenerated and reused. Lean MDEA solution is pumped to the top of the contactor and allowed to flow downward. Wet gas is fed into the bottom of the contactor and flows upward.

As the lean MDEA solution flows down through the contactor, it comes into contact with the wet gas. The CO₂ and H₂S are absorbed by amine. The amine is now known as rich amine and the remaining gas is sweet and continues to the dehydration systems.

The regeneration of the amine utilizes one 70.28 MMBtu/hr heater (EP-3A) and one 84.77 MMBtu/hr heater (EP-3B). Significant amounts of VOC and HAP can be generated in this process. The acid gas is sent to a thermal oxidizer where additional combustion will further minimize VOC and H₂S emissions.

Glycol Dehydration

Triethylene glycol (TEG) is used to remove water from the natural gas stream. Water is saturated into the sweet gas stream during the Amine Treating process. This water is absorbed by the TEG solution. The wet gas is brought into contact with dry glycol in an absorber. Water vapor is absorbed in the glycol and consequently, the water content is reduced. The wet rich glycol then flows from the absorber to a regeneration system in which the entrained gas is separated and fractionated in a column and re-boiler. The heating allows boiling off the absorbed water vapor and the water dry lean glycol is cooled (via heat exchange) and pumped back to the absorber.

The regeneration of the TEG utilizes small (less than 10 MMBtu/hr) heaters. This process produces VOC and HAP emission. This stream is condensed. The wastewater stream is sent to a wastewater tank. The non-condensable stream is sent to the thermal oxidizer for control where further combustion reduces the emissions. The dehydration flash gas stream is used as plant fuel.

Molecular Sieve Dehydration

Molecular sieve dehydration is used upstream of the cryogenic processes to achieve a -160°F water dew point. The process uses three molecular sieve vessels with two vessels in service adsorbing moisture from the gas stream and the other vessel in the regeneration mode.

During the regeneration mode, hot, dry gas (regen gas) is passed up through the vessel to drive off the adsorbed moisture from the molecular sieve. The gas comes from the discharge of the residue compressors and it is passed through a heat exchanger and a heater to achieve a temperature of approximately 500°F. After the gas passes through the bed it is cooled in an air cooled exchanger. The water in the gas condenses and is separated from the gas stream in a separator. The regen gas is routed to the inlet of the cryogenic unit.

Cryogenic Unit (3)

The cryogenic units are designed to liquefy natural gas components from the sweet, dehydrated inlet gas by removing water from the gas by means of the turbo expander/compressor. The cryogenic unit recovers natural gas liquids (NGL) by cooling the gas stream to extremely cold temperatures (-160°F and lower) and condensing components such as ethane, propane, butanes and heavier. The gas is cooled by a series of heat exchangers and by lowering the pressure of the gas from around 950 PSIG to approximately 190 PSIG. Once the gas has passed through the system of heat exchangers and expansion it is re-compressed using the energy obtained from expanding the gas.

The gas will flow through the following heat exchangers:

- **Gas to Gas Exchanger** – This unit exchanges heat from the warm inlet gas and the cold residue gas that has already been expanded. This cools the inlet gas.
- **Product Heater** – This unit will cool the inlet gas by exchanging heat with the cold liquid product that has been recovered.
- **Side-Reboiler** – This unit uses heat from the inlet gas to boil the methane out of the liquid. One stream comes off the side of the tower and one stream comes off of the bottom of the tower. This also cools the inlet gas.

The gas is expanded and recompressed in the expander/compressor.

Emergency Flares

Three flares are proposed. These flares' header system gathers hydrocarbons from Pressure Safety Devices in the plant, and routes them to the flares. These systems are also used to safely control blow-down hydrocarbons from equipment in the plant.

Compressors

The site will operate a total of 23 electric-driven compressors. No internal combustion engines or turbines will be used to drive compressors.

2.0 Description of this Modification:

Targa Resources, LLC (Targa) owns and operates the Road Runner Gas Processing Plant located near Loving in Eddy County, NM. The site was acquired by Targa on August 1, 2022 from Lucid Energy. The most recent New Source Review (NSR) permit No. 7200-M3 was issued on February 19, 2021. Targa is proposing a significant revision to NSR Permit No.7200-M3 to authorize design changes for proposed processing trains 2 and 3 and to update representations and permit limits for existing processes at the site, including processing train 1.

The primary function of the Road Runner Gas Processing Plant is to separate natural gas (methane) from heavier (liquid) hydrocarbons, raw sweet field gas so that the gas can meet pipeline specifications. The plant has been designated a primary Standard Industrial Classification (SIC) Code of 1311. The gas is treated to remove CO₂, H₂S, water and heavy (liquid) hydrocarbons from the gas stream. Stabilized condensate is removed from the site via pipeline with the option to truck it out as needed. Produced water is trucked out from the site. The amine treater vent flows to a thermal oxidizer to remove volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions.

Following is a summary of changes being proposed in this application:

- Remove processing train 4 and associated equipment from the permit; Units 4-EP-1, 4-EP-2, 4-EP-4, 4-EP-5, 4-EP-7, FUG2, 4-D-1 to 4-D-4. Train 4 has not been constructed.

- decrease site processing throughput from 880 MMscf/day to 725 MMscf/day
- Update specifications and permit limits for proposed processing trains 2 and 3.
- Increase permit limits to allow the ability to process gas containing up to 5 ppm H₂S.
- Update the permit representation for heaters to be equal to maximum heat output as opposed to design heat duty output.
- Add exempt methanol tanks.
- Increase plant fugitives to use updated counts.
- Update tank emission calculations to account for maximum hourly emissions.
- Update the number of electric compressors initially installed on existing train 1 and renumber the compressors in Form UA-2 Table 2-A for all electric compressors. (Units D-1 thru D-7, 2-D-1 thru 2-D-8, 3-D-1 thru 3-D-8)
- Update representations to separately list the amine sweetening unit for each train.

This project will not trigger Prevention of Significant Deterioration (PSD) review, as the facility is currently a minor NSR source and the proposed emission changes are less than 250 tons per year (tpy) for each criteria pollutant and will remain an area source of HAPs.

For revised draft permit the following items/conditions were added or revised:

- State Regulation 20.2.50 NMAC
- Referenced State Regulation 20.2.7 NMAC as State Enforced Only for certain sections.
- Revised SSM Condition A107 to comply with EPA's order.

3.0 Source Determination:

1. The emission sources evaluated include **Road Runner Gas Processing Plant.**

2. Single Source Analysis:

- A. SIC Code: Do the facilities belong to the same industrial grouping (i.e., same two-digit SIC code grouping, or support activity)? **Yes**
- B. Common Ownership or Control: Are the facilities under common ownership or control? **Yes**
- C. Contiguous or Adjacent: Are the facilities located on one or more contiguous or adjacent properties? **Yes**

3. Is the source, as described in the application, the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes? **Yes**

4.0 PSD Applicability:

- A. The source, as determined in 3.0 above, is a **PSD minor source before and after this modification.**
- B. The project emissions for this modification are **not significant.**
- C. Netting is **not required (project is not significant).**
- D. BACT is **not required for this modification (minor Mod).**

5.0 History (In descending chronological order, showing NSR and TV): *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
			PSD Minor Source (not counting fugitive VOCs)
		Initial Title V Permit	Title V application due 12 months following date when source starts operating as a major source.
7200M4	TBD	NSR Significant Revision (Joe Kimbrell)	<p>Following is a summary of changes being proposed in this application: remove processing train 4 and associated equipment from the permit. Train 4 has not been constructed; increase site processing throughput; update specifications and permit limits for proposed processing trains 2 and 3; increase permit limits to allow the ability to process gas containing up to 5 ppm H₂S; update the permit representation for heaters to be equal to maximum heat output as opposed to design heat duty output; reduce the amount of routine SSM emissions represented in the permit; add exempt methanol tanks; increase plant fugitives to use updated counts; update tank emission calculations to account for maximum hourly emissions; update the number of electric compressors initially installed on existing train 1 and renumber the compressors in Form UA-2 Table 2-A for all electric compressors; update representations to separately list the amine sweetening unit for each train.</p> <p>This project will not trigger Prevention of Significant Deterioration (PSD) review, as the facility is currently a minor NSR source and the proposed emission changes are less than 250 tons per year (tpy) for each criteria pollutant and will remain an area source of HAPs.</p>
*7200-M3	02/19/2021	NSR Significant Revision (Vanessa Springer)	<p>Increasing the facility processing capacity to 321,200 MMScf/yr;</p> <p>Adding two process trains (with identical equipment including reboilers, heaters, glycol dehydrators, and electric compressors) to the facility;</p> <p>Increasing the facility fugitives (Unit FUG2) and correcting fugitive emissions calculations;</p> <p>Adding two SSM flares (one for trains 2 and 3 and one for train 4) and revising the calculations for the existing flare so that the three flare units' emissions are based on actual SSM flare data from the facility (plus a 25% safety factor);</p> <p>And removing one thermal oxidizer, one amine unit, and two amine reboilers from the permit (these units were never installed).</p>
7200-M2	11/28/18	NSR	This modification consists of adding a second processing

5.0 History (In descending chronological order, showing NSR and TV): *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
		Significant Revision	train and changing facility source classification to Major Title V. The added units are 2-EP-1, 2-EP-2, 2-EP-3A, 2-EP-3B, 2-EP-4, 2-EP-5, 2-EP-7, 2-EP-8, 2-EP-9, 2-D-1, 2-D-2, 2-D-3, 2-D-4, T-6.
7200-M1	1/19/2018	NSR Significant Revision	This modification consists of changes to the facility layout, updated emissions, and modeling.
7200	4/3/2017	NSR- New	This permitting action authorized a new gas processing plant. The operation of the Roadrunner Gas Processing Plant is intended to process 220 MMscfd of gas. The gas will be treated to remove CO ₂ , dehydrated to remove water and processed to remove heavy (liquid) hydrocarbons from the gas stream. Several plant systems will be involved to perform these functions.

6.0 Public Response/Concerns:

A. Road Runner GPP Public Participation, prepared by Joe Kimbrell as of 6/26/2023

Public Notice Period was 1/19/2023 to 2/18/2023, ending on a Saturday so the Public Notice Period was extended until midnight Monday night, 2/20/2023.

Approximately 4,610 emails were received from the WEG server "@p2a.co". ["WEG Commenters"] No additional comments were received.

NMED attempted to send an email response to WEG Commenters but all emails were returned as undeliverable because the server didn't accept return emails.

Since email was undeliverable to WEG Commenters, per our regulations and discussions with managers, NMED attempted to contact WEG Commenters through the USPS.

I copied the embedded physical addresses from each email and pasted it into label sheets to create mailing labels.

Not all emails from the WEG Commenters received a response from NMED as described below.

4,447 labels were created by 3/5/2023.

45 emails were excluded due to incomplete addresses, no street address, no city, no zip code, etc. In some cases, NMED was able to obtain a zip code via Google.

20 emails were excluded as being duplicates.

As of 3/5/23, 147 were excluded because they were received after the end of the comment period which ended at midnight, Monday, 2/20/2023.

An additional 41 comments/responds were received between 3/5/23 and 4/26/2023.

For the first mailing of 4,447 Citizen's letters mailed, over 300 were returned to sender as undeliverable as addressed, insufficient address, no such address, no mail receptacle, or no known individual at that address.

NMED spent over \$5,000 on supplies and postage and not counting staff time.

Summary of 1st mailing:

- NMED received 1 email reply asking to be removed from all future mailings and wishing no future communications.

- NMED received 1 email reply asking why NMED was wasting resources sending paper letters instead of email responses. He/she requested future email responses since NMED now has a valid email address.
- 10 more duplicates discovered.
- Mailings that were returned as undeliverable will be removed from future attempts at public involvement.

Returned mail, total 322, received over the time period as described below:

4/21 – 11; 4/24 – 25; 4/27 – 14; 4/28 – 23; 5/3 - 128; 5/4 – 11; 5/5 – 15; 5/8 – 22; 5/9 – 5; 5/10 – 8; 5/12 – 3; 5/15 – 16; 5/16-19 – 8; 5/22-26 – 7 (2-UTC); 26 since 5/23/23.

On 5/11/2023, NMED prepared 206 mailing labels for Untimely Comments (UTCs) based on recommendations from management. These were mailed out about 5/19/23. This mailing will verify valid mailing addresses for future mailings as necessary, such as distribution of public notice for the upcoming hearing.

- B. A hearing was approved by the Department Secretary.
- C. No direct comments were received from WEG.
- D. Public Involvement Plan (PIP) was approved on January 26, 2023.

7.0 Compliance Testing:

Unit No.	Compliance Test	Test Dates
	N/A – there is no compliance test history for this facility.	

Per application revision dated 06092023 or later: Targa is currently conducting an audit of the Roadrunner Gas Processing Plant along with 33 other acquired facilities from Lucid Energy under an Environmental Audit proposed by Targa Northern Delaware LLC on October 7, 2022, and conditionally approved for penalty mitigation pursuant to the Air Quality Bureau Civil Penalty Policy, Appendix D provided by Memorandum dated October 26, 2022, signed by Ms. Cindy Hollenberg. In accordance with this memorandum, Targa has provided monthly audit reports under the New Mexico Environmental Department’s Voluntary Environmental Disclosure Policy, including timely compliance testing Unit EP-9. The compliance test for Unit EP-9 has just recently been completed and Targa is still waiting for test results.

8.0 Startup and Shutdown:

- A. If applicable, did the applicant indicate that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g) NMAC? NA
- B. If applicable, did the applicant indicate that a malfunction, startup, or shutdown operational plan was developed in accordance with 20.2.72.203.A.5 NMAC? Yes
- C. Did the applicant indicate that a startup, shutdown, and scheduled maintenance plan was developed and implemented in accordance with 20.2.7.14.A and B NMAC? Yes
- D. Does the facility have emissions due to routine or predictable startup, shutdown, and maintenance? If so, have all emissions from startup, shutdown, and scheduled maintenance operations been permitted? The facility has permitted SSMs.

9.0 Compliance and Enforcement Status:

Verification of Compliance email received 1/3/2023 from Jeremy Espinosa (Terry McDill) and stated: “There is no outstanding notice of violation and no settlement agreement for which all actions have not

been completed. Conditions from a settlement agreement, or any other applicable requirements, do not need to be included in the NSR permit.”

10.0 Modeling:

For NSR 7200M4: Email sent to Sufi Mustafa on 12/30/2022 requesting completeness determination on modeling files. Modeling review assigned to Angela Raso.

Don Shepard, NPS, on 2/6/2023, requested copies of draft permit, staff analysis and public notice, stating there may be modeling impacts of the parks in the area of this facility.

11.0 State Regulatory Analysis(NMAC/AQCR):

Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
2.1	General Provisions	Yes, Always	Entire Facility	The facility is subject to Title 20 Environmental Protection Chapter 2 Air Quality of the New Mexico Administrative Code so is subject to Part 1 General Provisions, Update to Section 116 of regulation for Significant figures & rounding. Applicable with no permitting requirements.
2.3	Ambient Air Quality Standards	No		NSR: 20.2.3 NMAC is a SIP approved regulation that establishes State standards in addition to the NAAQS. The NMAAQs themselves are not an “applicable requirement” with which a source must directly comply. The promulgation of a NMAAQs does not, in and of itself, automatically result in actionable measures applicable to a source. Instead, the specific measures contained in New Mexico’s EPA-approved SIP are the relevant applicable requirements, for example NSPSs and NESHAPs.
2.7	Excess Emissions	Yes, Always	Entire Facility	Applies to all facilities' sources. The Affirmative Defense language in Sections 6(b); 110(b)(15); 111; 112; 113; 115; and 116 is only State Enforceable.
2.33	Gas Burning Equipment - Nitrogen Dioxide	No		This facility has no new gas burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit.
2.34	Oil Burning Equipment - Nitrogen Dioxide	No		This facility has no oil burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit.
2.35	Natural Gas Processing Plant – Sulfur	No	Entire Facility	AQB determined on 3/04/16 that 20.2.35 NMAC does not apply to natural gas processing plants that <u>do not</u> use a Sulfur Recovery Unit to control sulfur emissions <u>but instead use acid gas injection (AGI), flaring, enclosed combustion, re-routing, and/or any other type of sulfur control other than an SRU.</u> See “Guidance and Clarification Regarding Applicability to 20.2.35 NMAC”. This facility does not use an SRU.
2.38	Hydrocarbon Storage Facilities	No		The proposed facility is not a tank battery or petroleum production facility as defined in this regulation [20.2.38.7 (D) and (E) NMAC]. The facility does not receive crude oil or condensate from a well. All gas and liquids enter the facility through a pipeline.

20.2.50 NMAC	Oil and Gas Sector – Ozone Precursor Pollutants	Yes	<p>The site is a natural gas processing facility in Eddy County, NM. Parts of the site commenced operation prior to the effective date (8/5/2022) of this Part and will therefore comply with provisions for Existing units. The proposed equipment will be treated as New units for the rule. Targa will comply with all applicable elements of this Part.</p> <p>20.2.50.113 – Engines and Turbines- The site has no engines or turbines. As such, this section does not apply.</p> <p>20.2.50.114 – Compressor Seals. Reciprocating compressors D-1 to D-4 are existing reciprocating compressors; and 2-D-1 to 2-D-4; 3-D-1 to 3-D-4; 3D-1 to 3-D-4 are new reciprocating compressors for Part 50. Compliance will be achieved through rod packing replacements and compliance with NSPS OOOOa.</p> <p>20.2.50.115 – Control Devices and Closed Vent Systems (including flares EP-a, 2-EP-1, 3-EP1)- A control device will be used to comply with 20.2.50.121 NMAC upon it becoming effective for the facility. Targa will comply with the requirements of this section within three years of the effective date of this Part, as per 20.2.50.115.B(5)(d).</p> <p>20.2.50.116 – Equipment Leaks and Fugitive Emissions - FUG is a combination of new and existing units. The site will conduct weekly AVO inspections and monthly OGI surveys as required by Subpart C. Existing units in FUG are also subject to NSPS OOOOa, and new units will be subject to NSPS OOOOb.</p> <p>20.2.50.118 – Glycol Dehydrators - Glycol Dehydrators (EP-7 (existing); 2-EP-7, 3-EP7 (new)) are controlled by condensers and a Thermal Oxidizer that reduce PTE to less than 2 tpy per unit. These control devices are federally enforceable. Therefore, this section does not apply.</p> <p>20.2.50.119 – Heaters - EP-2, EP-3A, and EP-6 are existing units >20MMBtu/hr; and 2-EP-2, 3-EP-2, EP-3B, 2-EP-6 are new units >20 MMBtu/hr. Targa will comply with the emission requirements in this section.</p> <p>20.2.50.120 – Hydrocarbon Liquid Transfers - The site is connected to a hydrocarbon liquids pipeline that is routinely used for hydrocarbon liquids transfer. Therefore, this section does not apply.</p> <p>20.2.50.121 – Pig Launching and Receiving – Unit MSSM-Pigging and Component Venting, Pig launching and receiving activities at the facility have a PTE greater than one tpy VOC; therefore, this regulation applies. Targa will comply with the requirements of this section</p>
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11.0 State Regulatory Analysis(NMAC/AQCR):

Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
				<p>within two years of the effective date of this Part, as per 20.2.50.121.B(1). 20.2.50.122 – Pneumatic Controllers and Pumps - The site has no natural gas driven pneumatic controllers or pumps. All units operate on site compressed air. Therefore, this section does not apply. 20.2.50.123 – Storage Vessels - Storage Tanks T-1 through T-5 have a PTE less than three tpy VOC. Therefore, the tank and control Unit COMB-1 are not subject. Air pollution control equipment used to reduce the emissions at these tanks is federally enforceable. Therefore, this section does not apply.</p>
2.61	Smoke and Visible Emissions	Yes	EP-1; 2-EP-1; 3-EP-1; EP-2; 2-EP-2; 3-EP2; EP-3A; EP-3B; EP-4; 2-EP-4; 3-EP-4; EP-5; 2-EP-5; 3-EP-5; EP-6; 2-EP-6; EP-9; COMB-1	<p>This regulation that limits opacity to 20% applies to Stationary Combustion Equipment, such as engines, boilers, heaters, and flares unless your equipment is subject to another state regulation that limits particulate matter such as 20.2.19 NMAC (see 20.2.61.109 NMAC).</p>
2.70	Operating Permits	Yes	Entire Facility	The source is a Title V Major Source as defined at 20.2.70.7 NMAC.
2.71	Operating Permit Fees	Yes	Entire Facility	Source is subject to 20.2.70 NMAC as cited at 20.2.71.109 NMAC.
2.72	Construction Permits	Yes	Entire Facility	NSR Permits are the applicable requirement, including 20.2.72 NMAC.
2.73	NOI & Emissions Inventory Requirements	Yes, Always	Entire Facility	Applicable to all facilities that require a permit.
2.74	Permits-Prevention of Significant Deterioration	No		This facility is PSD Minor before and after this modification (see PSD determination above).
2.75	Construction Permit Fees	Yes	Entire Facility	This facility is subject to 20.2.72 NMAC.

11.0 State Regulatory Analysis(NMAC/AQCR):

Citation 20 NMAC	Title	Applies (Y/N)	Unit(s) or Facility	Justification:
2.77	New Source Performance Standards	Yes	See Sources subject to 40 CFR 60	Applies to any stationary source constructing or modifying and which is subject to the requirements of 40 CFR Part 60.
2.78	Emissions Standards for HAPs	No	See Sources subject to 40 CFR 61	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 61.
2.79	Permits - Nonattainment Areas	No		This facility is not located in, not does it affect, a nonattainment area.
2.82	MACT Standards for Source Categories of HAPs	Yes	See sources subject to 40 CFR 63	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63.

12.0 Federal Regulatory Analysis:

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
Air Programs Subchapter C (40 CFR 50)	National Primary and Secondary Ambient Air Quality Standards	No	NA	The modeling and conditions developed from the modeling are the applicable requirements to demonstration compliance with the NAAQs.
NSPS Subpart A (40 CFR 60)	General Provisions	Yes	See sources subject to a Subpart in 40 CFR 60	Applies if any other subpart applies.
40 CFR 60.40c, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Yes	EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-6, 2-EP-6	<p>Applicable: facility has steam generating units for which construction, modification or reconstruction commenced after June 9, 1989 and that have a maximum design heat input capacity of 29 MW or less, but greater than or equal to 2.9 MW.</p> <p>Units EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, 2-EP-3A, 2-EP-3B, EP-6, and 2-EP-6 have been or will be installed after June 9, 1989, with a heat input capacity greater than or equal to 10 MMBtu/hr but less than 100 MMBtu/hr. The units will only burn natural gas and therefore will not subject to performance tests, reporting requirements, or emission limits under this regulation. The facility will follow all</p>

12.0 Federal Regulatory Analysis:

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
				record keeping requirements for these units.
40 CFR 60, Subpart Kb	Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Yes	T-1; T-2; T-3; T-4; T-5	This facility has storage vessels with a capacity greater than or equal to 75 cubic meters that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
40 CFR 60, Subpart KKK	Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants	No		This facility will have commenced construction after August 23, 2011. Thus the facility is not subject to this subpart.
40 CFR Part 60 Subpart LLL	Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions	No		The facility is a natural gas processing plant, however, there is not sulfur recovery plant, thus this location does not meet the applicability criteria of 40 CFR 60.640.
NSPS 40 CFR 60 Subpart IIII	Standards of performance for Stationary Compression Ignition Internal Combustion Engines	No	N/A	No RICE operated at the site.
NSPS 40 CFR Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	No	N/A	No RICE operated at the site.
NSPS 40 CFR Part 60 Subpart OOOO (Quad -O)	Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which construction, modification or reconstruction commenced after August 23, 2011 and before September 18, 2015	Yes	Train 2	Construction commenced after September 18, 2015. Per the application: Reciprocating electric compressors 2-D-1 through 2-D-8 and fugitive components associated with Train 2 are existing affected facilities that will be relocated from another site and were previously subject to NSPS OOOO. Targa will make a final determination of NSPS OOOO/a/b applicability for these relocated sources

12.0 Federal Regulatory Analysis:

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
				<p>and will comply with the NSPS as required. Train 2 will rely on the existing amine sweetening unit installed with Train 1, which is subject to NSPS OOOOa. Pneumatic devices and pumps will utilize instrument air.</p>
<p>NSPS 40 CFR Part 60 Subpart OOOOa</p>	<p>Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015</p>	<p>Yes</p>	<p>D-1, D-2, D-3, D-4, 2-D-1, 2-D-2, 2-D-3, 2-D-4, 3-D-1, 3-D-2, 3-D-3, 3-D-4, T-1, T-2, T-3, T-4, T-5, EP-8, 2-EP-2, 3-EP-8, FUG</p>	<p>The facility is defined as an onshore natural gas processing plant covered by 60.5400a, 60.5401a, 60.5402a, 60.5421a, and 60.5422a.</p> <p>D-1, D-2, D-3, D-4, 2-D-1, 2-D-2, 2-D-3, 2-D-4, 3-D-1, 3-D-2, 3-D-3, 3-D-4, are electric driven compressors associated with Train 1 manufactured after September 18, 2015 and are thus subject to 60.5385a, 60.5410a, 60.5415a, and 60.5420a.</p> <p>T-1, T-2, T-3, T-4, and T-5 are storage vessels constructed after September 18, 2015 which use an internal combustion device COMB-1 to reduce emissions to less than 6 tpy of VOCs.</p> <p>T-6 is a storage vessel that emits less than 6 tpy of VOCs.</p> <p>EP-8, 2-EP8, 3-EP-8 are amine sweetening units as defined in this subpart and is constructed after September 18, 2015. Per 60.5365a(g) (3) the unit is required to comply with 60.5423a(c) but not required to comply with 60.5405a through 60.5407 a and 60.5410a(g) and 60.5415a(g).</p> <p>The facility is defined as an onshore natural gas processing plant. Therefore fugitives are covered by 60.5400a, 60.5401a, 60.5402a, 60.5421a, and 60.5422a. Pneumatic devices and pumps will utilize instrument air.</p>
<p>NSPS 40 CFR Part 60 Subpart</p>	<p>Standards of Performance for Crude Oil and Natural Gas Facilities for which</p>	<p>Yes (upon rule)</p>	<p>Train 3</p>	<p>Reciprocating electric compressors 3-D-1 through 3-D-8 and fugitives associated with Train 3 will be new affected facilities for the purpose of NSPS OOOOb. Targa</p>

12.0 Federal Regulatory Analysis:

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
OOOOb	Construction, Modification or Reconstruction Commenced After November 15, 2021	becoming final)		will make a final applicability determination once the rule is final and will comply as required. Train 3 will rely on the existing amine sweetening unit installed with Train 1, which is subject to NSPS OOOOa. Pneumatic devices and pumps will utilize instrument air.
NESHAP Subpart A (40 CFR 61)	General Provisions	No		Applies if any other subpart applies.
MACT Subpart A (40 CFR 63)	General Provisions	Yes	See sources subject to a Subpart in 40 CFR 63	Applies if any other subpart applies.
40 CFR 63.760 Subpart HH	Oil and Natural Gas Production Facilities –	Yes	EP-7 2-EP-7 3-EP-7	This facility is a HAP Area Source and is subject to the requirements of 40 CFR 63 Subpart HH. Dehydrators EP-7, 2-EP-7, 3-EP-7 have actual and potential emissions less than 1 tpy (0.9 Megagrams per year) and are therefore exempt from control requirements per 40 CFR 63.764(e)(1)(ii). Records of the exempt status will be maintained as required in 40 CFR 63.774(d)(1).
MACT 40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT)	No	N/A	No RICE operated at the site
40 CFR 63 Subpart JJJJJ (6-Js)	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	No		Not subject to MACT 6-J per 63.11195(e) since units are gas-fired boilers as defined.
40 CFR 64	Compliance Assurance Monitoring	No		CAM will be addressed as part of the initial Title V permit application.
40 CFR 68	Chemical Accident Prevention	Yes	Entire facility	The facility is an affected facility, as it will use flammable process chemicals such as propane at quantities greater than the thresholds. The facility will develop and

12.0 Federal Regulatory Analysis:

Federal Regulation	Title	Applies (Y/N)	Unit(s) or Facility	Comments
				maintain a RMP Plan for these chemicals.

13.0 Exempt and/or Insignificant Equipment that do not require monitoring:

Unit Number	Source Description	Manufacturer	Max Capacity	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)	Date of Manufacture /Reconstruction ²
			Capacity Units	Insignificant Activity citation (e.g. IA List Item #1.a)	Date of Installation /Construction ²
T-7	Used Oil/Slop Oil/Skid Runoff	NA	400	20.72.202.B(2)(a)	2020
			BBL	IA List Item #1.a	TBD
T-8	Used Oil/Slop Oil/Skid Runoff	NA	400	20.72.202.B(2)(a)	2020
			BBL	IA List Item #1.a	TBD
HAUL	Haul Road Emissions	NA	526	20.72.202.B(5)	NA
			Miles/year	IA List Item #1.a	NA

14.0 New/Modified/Unique Conditions (Format: Condition#: Explanation):

- A. Added 20.2.50 NMAC to Table 103.A. Revised 40 CFR 50 applicability statement.
- B. Added new condition A107.D to more accurately demonstrate compliance with the SSMB limits. Revised all SSM conditions to meet the EPA Petition and new conditions.
- C. Added H2S to Table 107.A.
- D. Updated Facility Inlet Flowrate Limit in Condition A108.B from 880 MMscf/day to 735 MMscf/day.
- E. Added new condition: A209.G 20.2.50 NMAC Compressors with Wet Seals (Reciprocating Compressors Units D-1 thru D-7, 2-D-1 thru 2-D-8, 3-D-1 thru 3-D-8)
- F. Added new condition: A204.C 20.2.50 NMAC Natural Gas Fired Heaters (Units EP-3A, EP-3B Amine Reboilers; EP-6, 2-EP-6 Stabilizer Reboilers) [New and existing natural gas fired heaters greater than 20 MMBTU/hr including heater treaters, heated flash separators, evaporator units, fractionation column heaters, and glycol dehydrator reboilers in use at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations. [This includes heaters used as amine reboilers, even though the amine unit portion is not regulated under Part 50]]
- G. Added new condition: Table 106.B Emission Standards for Heaters (Units EP-3A, EP-3B Amine Reboilers; EP-6, 2-EP-6 Stabilizer Reboilers; EP-2, 2-EP-2, 3-EP-2 Trim Reboilers)
- H. Added new Part 50 Condition: A206.E Open Flares used to comply with 20.2.50 NMAC

(Units EP-1, 2-EP-1, 3-EP-1)

- I. Added new Part 50 Condition: A208.F: Enclosed Combustion Devices (ECD) and Thermal Oxidizers (TO) used to comply with 20.2.50 NMAC (Unit EP-9)
- J. Added new Part 50 Condition: A209.E: 20.2.50 NMAC Equipment Leaks and Fugitive Emissions (Unit FUG) applies at all well sites, tank batteries, gathering and boosting stations, natural gas processing plants, transmission compressor stations, and associated piping and components. Does not include components in air or water service.
- K. Added new Part 50 Condition: A209.F: 20.2.50 NMAC Pig Launchers and Receivers (Unit MSSM-Pigging and Component Venting)
- L. Added new Part 50 Condition A209.G: 20.2.50 NMAC Compressors Seals (Reciprocating Compressors Units D-1 thru D-7, 2-D-1 thru 2-D-8, 3-D-1 thru 3-D-8)
- M. Since controlled PTE for VOCs were less than 2.0 tpy, I did not add: 20.2.50.123.B NMAC, Storage Vessels, Part 50 condition for new storage vessels with a PTE > 2 tpy VOC, existing storage vessels with a PTE > 3 tpy in multi-tank batteries*, and existing storage vessels with a PTE > 4 tpy in single tank batteries.

For revised draft permit the following items/conditions were added or revised:

- Referenced State Regulation 20.2.7 NMAC as State Enforced Only for certain sections.
- Revised SSM Condition A107 to comply with EPA’s order.

15.0 For Title V action: Cross Reference Table between NSR Permit 7200M4 and TV Permit No permit, yet. NSR permit conditions cross referenced to the TV permit are federally enforceable conditions, and therefore brought forward into the TV permit:

Changed by NSR*	NSR Condition # 7200-M4	TV Section # To Be Determined
	A100 Introduction	A100 Introduction
revised	A101 Permit Duration	A101 Permit Duration
updated	A102 Facility Description	A102 Facility Description
updated	Table 102.A Total Potential Emissions	Table 102.A Total Potential Emissions
updated	A103 Facility: Applicable Regulations	A103 Facility: Applicable Requirements
updated	A104 Facility: Regulated Sources	A104 Facility: Regulated Sources
	A105 Facility: Control Equipment	A105 Facility: Control Equipment
revised	A106 Facility: Allowable Emissions	A106 Facility: Allowable Emissions
revised	A107 Facility: Allowable SSM	A107 Facility: Allowable SSM
revised	A107.C SSM Flaring Emissions (Units EP-1, 2-EP-1, and 3-EP-1)	
revised	A107.D SSM-TO, MSSM, and MSST Venting Emissions	
revised	A107.E SSMB Emissions	
Deleted	A107.E Malfunction Emissions [for venting of gas]	
	A108.A Facility: Continuous hours of operations	A108 Facility: Hours of Operations
	A108.B Facility Inlet Flowrate Limit	
	A109 Facility: Reporting Schedules NR for	A109 Facility: Reporting Schedules

Changed by NSR*	NSR Condition # 7200-M4	TV Section # To Be Determined
	NSR	
		A109.A TV Semi-Annual
		A109.B TV ACC
		A109.C NSR Quarterly Reporting
	A110.A Facility: Fuel and Fuel Sulfur Requirements (EP-1, 2/3-EP-1, 4-EP-1, EP-2, 2-EP-2, 3-EP-2, 4-EP-2, EP-3A, EP-3B, EP-4, 2-EP-4, 3-EP-4, 4-EP-4, EP-5, 2-EP-5, 3-EP-5, 4-EP-5, EP-6, 2-EP-6)	
	A111 Facility: 20.2.61 NMAC Opacity Limit (EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-4, 2-EP-4, 3-EP-4, EP-5, 2-EP-5, 3-EP-5, EP-6, 2-EP-6, EP-9, COMB-1)	
	A201 Engines: Not Required	
	A202 Glycol Dehydrator	
	A202.A Extended Gas Analysis and Emission Calculations (Units EP-7, 2-EP-7, 3-EP-7)	
	A202.B Glycol Pump Circulation Rate (Units EP-7, 2-EP-7, 3-EP-7)	
	A202.C Control Device Inspection: Condenser, Flash Tank, and Thermal Oxidizer System (Units EP-7, 2-EP-7, 3-EP-7, EP-9, BTEX-1, BTEX-2, BTEX-3)	
	A202.D 40 CFR 63, Subpart HH (Units EP-7, 2-EP-7, 3-EP-7)	
	A203 Tanks, Loading, and Tank Control	
	A203.A Tank Throughput (Units T-1, T-2, T-3, T-4, T-5, and T-6)	A203.A
	A203.B Truck Loading - Condensate Loadout (Unit LOAD)	A203.B
	A203.C Combustor Flame and Visible Emissions (20.2.61 NMAC) (Unit COMB-1)	A203.C
	A203.D Combustor Operations (Units COMB-1, T-1, T-2, T-3, T-4, T-5)	
	A203.E Tank Control Requirements - Condensate Stabilization System (T-1, T-2, T-3, T-4, T-5)	
	A204 Heaters and Boilers	
	A204.A 40 CFR 60, Subpart Dc (Units EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-6, 2-EP-6)	A204.A
	A204.B Operational Inspection (Units EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, 2-EP-4, 3-EP-4, EP-5, 2-EP-5, 3-EP-5, EP-6, 2-EP-6)	
New	A204.C 20.2.50 NMAC Natural Gas Fired	

Changed by NSR*	NSR Condition # 7200-M4	TV Section # To Be Determined
	Heaters (Units EP-3A, EP-3B Amine Reboilers; EP-6, 2-EP-6 Stabilizer Reboilers; EP-2, 2-EP-2, 3_EP-2 Trim Reboilers) [New and existing natural gas fired heaters greater than 20 MMBTU/hr including heater treaters, heated flash separators, evaporator units, fractionation column heaters, and glycol dehydrator reboilers in use at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations. [This includes heaters used as amine reboilers, even though the amine unit portion is not regulated under Part 50]]	
	A206 Flares	
	A206.A Flare Flame and Visible Emissions (20.2.61 NMAC) (Units EP-1, 2/3-EP-1)	A206.A
	A206.B Flare Gas Flow Monitoring and Gas Analysis (Units EP-1, 2/3-EP-1)	A206.B
	A206.C Flare Operation Requirement (Units EP-1, 2/3-EP-1)	A206.C
	A206.D Flare Construction and Stack Height (Units 2/3-EP-1)	
	A206.E Open Flares used to comply with 20.2.50 NMAC (Units EP-1, 2-EP-1, 3-EP-1)	
	A207 Sulfur Recovery Unit - Not Required	
	A208 Amine Unit and Thermal Oxidizer	
	A208.A Amine Unit Control and Thermal Oxidizer Operating Requirements (Unit EP-9 Controlling EP-8, 2-EP-8, 3-EP-8)	
	A208.B Thermal Oxidizer Visible Emissions (20.2.61 NMAC) (Unit EP-9)	
	A208.C Thermal Oxidizer Operation and Emissions Calculation (Unit EP-9)	
	A208.D Thermal Oxidizer Control Efficiency (Unit EP-9)	
	A208.E Thermal Oxidizer Periodic Emissions Testing (Unit EP-9)	
New	A208.F Enclosed Combustion Devices (ECD) and Thermal Oxidizers (TO) used to comply with 20.2.50 NMAC (Unit EP-9)	
	A209 Fugitives	
	A209.A 40 CFR 60, Subpart OOOOa -	

Changed by NSR*	NSR Condition # 7200-M4	TV Section # To Be Determined
	Fugitives (Units FUG)	
	A209.B 40 CFR 60, Subpart OOOOa - Reciprocating Compressors (Units D-1 thru D-4, 2-D-1 thru 2-D-4, 3-D-1 thru 3-D-4)	
	A209.C 40 CFR 60, Subpart OOOOa – Tanks (Units T-1, T-2, T-3, T-4, T-5)	
	A209.D 40 CFR 60, Subpart OOOOa – Amine Unit (Unit EP-8, 2-EP-8, 3-EP-8)	
New	A209.E 20.2.50 NMAC Equipment Leaks and Fugitive Emissions (Unit FUG)	
New	A209.F 20.2.50 NMAC Pig Launchers and Receivers (Unit MSSM-Pigging and Component Venting)	
New	A209.G 20.2.50 NMAC Electric Compressors Seals (Reciprocating Compressors Units D-1 thru D-7, 2-D-1 thru 2-D-8, 3-D-1 thru 3-D-8)	
	Part B General Conditions	Part B General Conditions, entire Section updated

16.0 Permit specialist’s notes to other NSR or Title V permitting staff concerning changes and updates to permit conditions.

- A. 2/10/23: spoke with Rob Lilies, Trinity Consultants, concerning how the 5% uncontrolled emissions from Tanks T1-T5 and EP-7, 2-EP-7, and 3-EP-7 from Control device COMB-1 is represented in the application and how it should be reported in the current permit. Previous permits showed these emissions with the individual units. In this application and new permit, these emissions are represented in the SSM-TO, Thermal Oxidizer SSM. 6/28/23: email from Robert Andries of Targa updated the above statement with this information: Tanks T1 – T5 are controlled by COMB-1, with a control efficiency of 95%. The 5% uncontrolled emissions discussed are the remainder after the control efficiency is applied. Emissions from working and breathing losses from each of the tanks are ~ 0.84 tons VOC, as shown on page 53 of the updated application, totaling 4.217 tons VOC from the (5) tanks; this along with other streams (loading and MSSB) total to the 4.26 tons VOC allowed from the unit COMB-1, as shown on page 66 of the updated application. Vents EP-7, 2-EP-7, 3-EP-7, EP-8, 2-EP-8, and 3-EP-8 are controlled by EP-9, the TO, with a control efficiency of 99.9%. The downtime for this unit (EP-9) is all that is captured under SSM-TO, discussed below at 16.E.
- B. Flare operations and how they are represented changed with this application and permit, 7200M4.
- C. 6/9/2023 questions and updates to the application: I have several questions, updates to the application for hearing preparation. Hope you can respond sooner than later if it takes time to gather the information.

16.C.1 The Inlet Gas analysis (GA) is dated 11/20/2019 for Units EP-1, 2-EP-1, and 3-EP-1 (page 59) and the Residue GA is dated 9/21/2021, since application 7200M2 was date December 2022, do you have a more current gas analysis to update in the application? Along with any updates due to using a more current GA. Revised application PDF pages 59 to xx of 359. Why are the Gas and dates different for the two different streams?

[A more recent inlet gas analysis has been provided on page 181 of the application for reference. Justification for use of the older inlet gas analysis is provided in Section 7 of the application, on page 78. The residue gas analysis has been replaced with a cold flare header analysis in the calculations and has been provided on page 196, dated November 18, 2022.](#)

16.C.2 In the revised application, page 190 of 359, why is there a reference to the “Red Hills Complex”? This seems to imply that that Road Runner GPP isn’t a single source and part of a larger source.

[This has been removed from the application.](#)



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Analytical Report

9/21/2021

Customer:	Lucid Energy Delaware	Order:	0148-2309
Location:	Red Hills Processing Complex	Received:	9/14/2021
Description:	Flare Scrubbers and Amine/Glycol Waste Streams	Primary Contact:	Jaylen Fuentes

16.C.3 Is Unit EP-9 the only unit that has had an initial compliance test? This needs to be added to the application at Section 17, page 356 of 359.

[The initial compliance test for EP-9 is now addressed in the application on page 361.](#)

16.C.4 The location map at Section 6, page 33 of 359, needs to be improved to show the fence line or if it is same as the property boundaries then that needs to be explained or noted. A readable legend would be good. Per the instruction of previous page (Section 6, page 32 of 359) the map needs to clearly identify the restricted access to the public. Reference Section 1-D: Facility Location

Information, item 12: "Method(s) used to delineate the Restricted Area: Continuous fencing." Section 12 states: "A plot plan drawn to scale showing emissions points, roads, structures, tanks, and fences of property owned, leased, or under direct control of the applicant. This plot plan must clearly designate the restricted area as defined in UA1, Section 1-D.12. The unit numbering system should be consistent throughout this application."

[An updated plot plan has been included with the application in Section 5, page 33, along with a narrative on page 32.](#)

- 16.C.5 The Section 8, Topographic Map needs similar updated per the instructions on page 316 of 359. The red line area is assumed to be the property boundary but is it also the "The area which will be restricted to public access." Maybe add some narrative on page 316 to explain what is shown on the map to meet the instructions.

[An updated topographic map has been included with the application in Section 8 on page 322, along with a narrative on page 321.](#)

- 16.C.6 For this and future applications, 40 CFR 50 NAAQS should not be shown as an applicable requirement. The modeling and conditions developed from the modeling are the applicable requirements. This is language to state in the justification block in Applicable Requirement Table, page 349 of 359.

[This update has been incorporated as requested on page 354 of the application.](#)

- D. Toxic Air Pollutants: n-Hexane was conservatively assumed to be cyclohexane for sources included in the TAP analysis.

Per 20.2.72.502 Table C, "Sources may choose to use a correction factor for the release height of emissions for the purpose of determining whether a permit is necessary for the emission of a toxic air pollutant. To apply the correction go to the table below and find the minimum height of release for the toxic air pollutant and select the correction factor (CF) which corresponds to that figure. If the height of release is between two values, the lower number shall be selected; or in the event of multiple releases of the same substance from different release heights, the source may choose to use a weighted average CF, weighted by the emission rate at each. The emissions in pounds per hour is then multiplied by the CF (see below). If the emissions from your source exceed the resulting number, you must apply for a permit from the department. Remember, this must be done for each toxic air pollutant."

This weighted correction factor was applied to Octane, Nonane, and Cyclohexane and an adjusted TAPs threshold for each pollutant was developed, as identified in the snip below. Based on this adjustment, there are no toxic air pollutants in excess of the screening thresholds.

The weighted average correction factors were identified as follows: Octane = 63.05, Nonane = 62.54, and Cyclohexane = 40.24.

Please see a sample calculation for cyclohexane's correction factor below:

Weighted Average Correction Factor = SUM [Correction Factor of each stack * cyclohexane emission rate] / SUM [Cyclohexane emission rate] = [(41*21.34 lb/hr)+(152*21.34 lb/hr)+(71*21.34 lb/hr)+(19*0.206 lb/hr)+(19*126.95 lb/hr)+(1*9.89E-04 lb/hr)+(5*0.94 lb/hr)+(1*0.32 lb/hr)+(1*0.53 lb/hr)+(1*6.52 lb/hr)+(1*0.90 lb/hr)+(1*0.70 lb/hr)] / 201.09 lb/hr = 40.24

TAPs Threshold (Cyclohexane) = 70 lb/hr * 40.24 = 2816.88 lb/hr.

Larga Midstream Services LLC - Roadrunner Gas Processing Plant

Toxic Air Pollutants Summary

Unit	Stack Height (ft)	Pol			
		CF ¹	Octane lb/hr	Nonane lb/hr	Cyclohexane lb/hr
EP-2	22.50	1.00	-	-	-
2-EP-2	25.80	1.00	-	-	-
3-EP-2	25.80	1.00	-	-	-
EP-3A	24.80	1.00	-	-	-
EP-3B	32.70	1.00	-	-	-
EP-4	25.00	1.00	-	-	-
2-EP-4	31.80	1.00	-	-	-
3-EP-4	31.80	1.00	-	-	-
EP-5	15.80	1.00	-	-	-
2-EP-5	22.00	1.00	-	-	-
3-EP-5	22.00	1.00	-	-	-
EP-6	24.90	1.00	-	-	-
2-EP-6	24.90	1.00	-	-	-
EP-1	100.00	41.00	20.89	2.25	21.34
2-EP-1	199.00	152.00	20.89	2.25	21.34
3-EP-1	150.00	71.00	20.89	2.25	21.34
EP-9	76.00	19.00	0.0127	3.03E-06	0.206
SSM-TO	76.00	19.00	7.82	1.86E-03	126.95
T-6	20	1	1.60E-06	-	9.89E-04
COMB-1	50.00	5.00	0.51	0.51	0.94
LOAD	-	1	0.17	0.17	0.32
FUG	-	1	16.35	1.86	0.53
MSSM	-	1	2.33	0.25	6.52
MSST	-	1	0.32	0.035	0.90
MSSB	-	1	0.25	0.027	0.70
Total:			90.44	9.59	201.09
TAP Threshold²:			96.70	70.00	70.00
Corrected TAPs Threshold³:			6096.98	4377.51	2816.88
Exceeds Threshold?			No	No	No

Language consistent with the above explanation has been added to the narrative in Section 20 of the updated application dated 06142023 for clarity.

E. SSM-TO event volume discussion, 6/26/2023:

The 793,340 scf is the maximum expected hourly volumetric flow rate of the waste gas from the dehydrators and amines going to the thermal oxidizer. On page 56 of the application, the TO calculations indicate the flow rate for Waste Gas from Dehy and Waste Gas from Amine (shown in the snip below).

The combination of these two is what is accounted for as an SSM-TO event.

Stream Sent to Flare/Vapor Combustor No.	1	2	3	
Stream Sent to Flare/Vapor Combustor Name (Enter Names of Each Stream Here)		Waste Gas from Dehy	Waste Gas from Amine	Suppl
Maximum Expected Hourly Volumetric Flow Rate of Stream (scf/hr)		2577.989	790764	
Amount of Time Stream Fired (hrs/yr)		8760	8760	
Maximum Expected Annual Volumetric Flow Rate of Stream (scf/yr)		22,583,187	6,927,091,472	
Heat Value of Stream - from program results or gas analysis (Btu/scf)		2550	23.70	
propane weight percent of total stream (%) *OPTIONAL*				
VOC weight percent of total				