Enterprise Products

ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

March 2, 2022

7021 1970 0001 0861 6522
Return Receipt Requested

New Mexico Environmental Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

Renewal Application for Title V Permit Number P201-R3
Huerfano Pump Station
Mid-America Pipeline Company LLC

Dear Sr/Madam:

Mid-America Pipeline Company LLC (MAPL) owns and Enterprise Products Operating LLC (Enterprise) operates the Huerfano Pump Station (Huerfano). Huerfano is located in Township 26N, Range 10W, Section 21, approximately 17 miles south of Bloomfield, New Mexico in San Juan County.

MAPL is submitting this Title V Permit renewal application under regulation 20.2.70.300.B(2) NMAC. The application is being submitted at least 12 months prior to the date of permit expiration. There are no process or equipment changes being requested in this application and all equipment will remain as currently permitted.

If you have any questions concerning this application, please contact Jing Li at (713) 381-5766 or Pranav Kulkarni at (713) 381-5830.

Sincerely,

Jing Li
Staff Environmental Engineer

Pranav Kulkarni Ph.D.
Manager, Environmental Permitting

/bjm
enclosure

P.O. BOX 4324
HOUSTON, TEXAS 77210-4324
713.381.6500

1100 LOUISIANA STREET
HOUSTON, TEXAS 77002-5227
www.enterpriseproducts.com

Mail Application To:		**For Department use only:**
New Mexico Environment Department Air Quality Bureau Permits Section 525 Camino de los Marquez, Suite 1 Santa Fe, New Mexico, 87505 Phone: (505) 476-4300 Fax: (505) 476-4375 www.env.nm.gov/aqb		AIRS No.:

Universal Air Quality Permit Application

Use this application for NOI, NSR, or Title V sources.

Use this application for: the initial application, modifications, technical revisions, and renewals. For technical revisions, complete Sections, 1-A, 1-B, 2-E, 3, 9 and any other sections that are relevant to the requested action; coordination with the Air Quality Bureau permit staff prior to submittal is encouraged to clarify submittal requirements and to determine if more or less than these sections of the application are needed. Use this application for streamline permits as well. See Section 1-I for submittal instructions for other permits.

This application is submitted as (check all that apply)**:** ☐ Request for a No Permit Required Determination (no fee)
☐ **Updating** an application currently under NMED review. Include this page and all pages that are being updated (no fee required).
Construction Status: ☐ Not Constructed ☑ Existing Permitted (or NOI) Facility ☐ Existing Non-permitted (or NOI) Facility
Minor Source: ☐ a NOI 20.2.73 NMAC ☐ 20.2.72 NMAC application or revision ☐ 20.2.72.300 NMAC Streamline application
Title V Source: ☐ Title V (new) ☑ Title V renewal ☐ TV minor mod. ☐ TV significant mod. TV Acid Rain: ☐ New ☐ Renewal
PSD Major Source: ☐ PSD major source (new) ☐ minor modification to a PSD source ☐ a PSD major modification

Acknowledgements:

☑ I acknowledge that a pre-application meeting is available to me upon request. ☑ Title V Operating, Title IV Acid Rain, and NPR applications have no fees.

☐ $500 NSR application Filing Fee enclosed OR ☐ The full permit fee associated with 10 fee points (required w/ streamline applications).

☐ Check No.: **N/A** in the amount of **N/A**

☑ I acknowledge the required submittal format for the hard copy application is printed double sided 'head-to-toe', 2-hole punched (except the Sect. 2 landscape tables is printed 'head-to-head'), numbered tab separators. Incl. a copy of the check on a separate page.

☑ I acknowledge there is an annual fee for permits in addition to the permit review fee: www.env.nm.gov/air-quality/permit-fees-2/.

☐ This facility qualifies for the small business fee reduction per 20.2.75.11.C. NMAC. The full $500.00 filing fee is included with this application and I understand the fee reduction will be calculated in the balance due invoice. The Small Business Certification Form has been previously submitted or is included with this application. (Small Business Environmental Assistance Program Information: www.env.nm.gov/air-quality/small-biz-eap-2/.)

Citation: Please provide the **low level citation** under which this application is being submitted: **20.2.70.300.B(2) NMAC**
(e.g. application for a new minor source would be 20.2.72.200.A NMAC, one example for a Technical Permit Revision is 20.2.72.219.B.1.b NMAC, a Title V acid rain application would be: 20.2.70.200.C NMAC)

Section 1 – Facility Information

Section 1-A: Company Information

		AI # if known (see 1st 3 to 5 #s of permit IDEA ID No.): **1201**	Updating Permit/NOI #: **P201-R3**
1	Facility Name: **Huerfano Pump Station**	Plant primary SIC Code (4 digits): **4619**	
		Plant NAIC code (6 digits): **486990**	
a	Facility Street Address (If no facility street address, provide directions from a prominent landmark): **From Bloomfield, travel south on route 550 for 19 miles. Facility is on the left side of the road.**		
2	Plant Operator Company Name: **Enterprise Products Operating, LLC**	Phone/Fax: **(713) 381-5766 / (713) 759-3931**	
a	Plant Operator Address: **P.O. Box 4324, Houston TX 77210-4324**		

b	Plant Operator's New Mexico Corporate ID or Tax ID: **32-89188**	
3	Plant Owner(s) name(s): **Mid-America Pipeline Company, LLC**	Phone/Fax: **(713) 381-5766 / (713) 759-3931**
a	Plant Owner(s) Mailing Address(s): **P.O. Box 4324, Houston TX 77210-4324**	
4	Bill To (Company): **Mid-America Pipeline Company, LLC**	Phone/Fax: **(713) 381-5766 / (713) 759-3931**
a	Mailing Address: **P.O. Box 4324, Houston TX 77210-4324**	E-mail: **environmental@eprod.com**
5	☑ Preparer: **Jing Li** ☐ Consultant: **N/A**	Phone/Fax: **(713) 381-5766 / (713) 759-3931**
a	Mailing Address: **P.O. Box 4324, Houston TX 77210-4324**	E-mail: **jli@eprod.com**
6	Plant Operator Contact: **James Lieb**	Phone/Fax: **(505) 599-2159 / (505) 599-2538**
a	Address: **P.O. Box 4324, Houston TX 77210-4324**	E-mail: **jplieb@eprod.com**
7	Air Permit Contact: **Jing Li**	Title: **Staff Environmental Engineer**
a	E-mail: **jli@eprod.com**	Phone/Fax: **(713) 381-5766 / (713) 759-3931**
b	Mailing Address: **P.O. Box 4324, Houston TX 77210-4324**	
c	The designated Air permit Contact will receive all official correspondence (i.e. letters, permits) from the Air Quality Bureau.	

Section 1-B: Current Facility Status

1.a	Has this facility already been constructed? ☑ Yes ☐ No	1.b If yes to question 1.a, is it currently operating in New Mexico? ☑ Yes ☐ No
2	If yes to question 1.a, was the existing facility subject to a Notice of Intent (NOI) (20.2.73 NMAC) before submittal of this application? ☐ Yes ☑ No	If yes to question 1.a, was the existing facility subject to a construction permit (20.2.72 NMAC) before submittal of this application? ☑ Yes ☐ No
3	Is the facility currently shut down? ☐ Yes ☑ No	If yes, give month and year of shut down (MM/YY): **N/A**
4	Was this facility constructed before 8/31/1972 and continuously operated since 1972? ☐ Yes ☑ No	
5	If Yes to question 3, has this facility been modified (see 20.2.72.7.P NMAC) or the capacity increased since 8/31/1972? ☐ Yes ☐ No ☑ N/A	
6	Does this facility have a Title V operating permit (20.2.70 NMAC)? ☑ Yes ☐ No	If yes, the permit No. is: **P-201-R3**
7	Has this facility been issued a No Permit Required (NPR)? ☐ Yes ☑ No	If yes, the NPR No. is: **N/A**
8	Has this facility been issued a Notice of Intent (NOI)? ☐ Yes ☑ No	If yes, the NOI No. is: **N/A**
9	Does this facility have a construction permit (20.2.72/20.2.74 NMAC)? ☑ Yes ☐ No	If yes, the permit No. is: **0888-M6R2**
10	Is this facility registered under a General permit (GCP-1, GCP-2, etc.)? ☐ Yes ☑ No	If yes, the register No. is: **N/A**

Section 1-C: Facility Input Capacity & Production Rate

1	What is the facility's maximum input capacity, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: **9,500 hp**	Daily: **9,500 hp**	Annually: **9,500 hp**
b	Proposed	Hourly: **9,500 hp**	Daily: **9,500 hp**	Annually: **9,500 hp**
2	What is the facility's maximum production rate, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: **9,500 hp**	Daily: **9,500 hp**	Annually: **9,500 hp**
b	Proposed	Hourly: **9,500 hp**	Daily: **9,500 hp**	Annually: **9,500 hp**

Section 1-D: Facility Location Information

1	Section: **21**	Range: **10W**	Township: **26N**	County: **San Juan**	Elevation (ft): **6,525**
2	UTM Zone: ☐ 12 or ☑ 13			Datum: ☑ NAD 27 ☐ NAD 83 ☐ WGS 84	
a	UTM E (in meters, to nearest 10 meters): **239446**			UTM N (in meters, to nearest 10 meters): **4040156**	
b	**AND** Latitude (deg., min., sec.): **36°28'16.65"**			Longitude (deg., min., sec.): **107°54'28.71"**	
3	Name and zip code of nearest New Mexico town: **Bloomfield, NM 87413**				
4	Detailed Driving Instructions from nearest NM town (attach a road map if necessary): **From Bloomfield, travel south on route 550 for 19 miles. Facility is on the left side of the road.**				
5	The facility is 17 miles south of Bloomfield, NM.				
6	Status of land at facility (check one): ☑ Private ☐ Indian/Pueblo ☐ Federal BLM ☐ Federal Forest Service ☐ Other (specify)				
7	List all municipalities, Indian tribes, and counties within a ten (10) mile radius (20.2.72.203.B.2 NMAC) of the property on which the facility is proposed to be constructed or operated: **Municipalities: None; Indian Tribes: Navajo Nation; Counties: San Juan**				
8	**20.2.72** NMAC applications **only**: Will the property on which the facility is proposed to be constructed or operated be closer than 50 km (31 miles) to other states, Bernalillo County, or a Class I area (see www.env.nm.gov/aqb/modeling/class1areas.html)? ☐ Yes ☐ No (20.2.72.206.A.7 NMAC) If yes, list all with corresponding distances in kilometers: **N/A**				
9	Name nearest Class I area: **Mesa Verde National Park**				
10	Shortest distance (in km) from facility boundary to the boundary of the nearest Class I area (to the nearest 10 meters): **90 km**				
11	Distance (meters) from the perimeter of the Area of Operations (AO is defined as the plant site inclusive of all disturbed lands, including mining overburden removal areas) to nearest residence, school or occupied structure: **4,000 m**				
12	Method(s) used to delineate the Restricted Area: **Fencing** "**Restricted Area**" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.				
13	Does the owner/operator intend to operate this source as a portable stationary source as defined in 20.2.72.7.X NMAC? ☐ Yes ☑ No A portable stationary source is not a mobile source, such as an automobile, but a source that can be installed permanently at one location or that can be re-installed at various locations, such as a hot mix asphalt plant that is moved to different job sites.				
14	Will this facility operate in conjunction with other air regulated parties on the same property? ☒ No ☐ Yes If yes, what is the name and permit number (if known) of the other facility? **N/A**				

Section 1-E: Proposed Operating Schedule (The 1-E.1 & 1-E.2 operating schedules may become conditions in the permit.)

1	Facility **maximum** operating ($\frac{\text{hours}}{\text{day}}$): **24**	($\frac{\text{days}}{\text{week}}$): **7**	($\frac{\text{weeks}}{\text{year}}$): **52**	($\frac{\text{hours}}{\text{year}}$): **8,760**			
2	Facility's maximum daily operating schedule (if less than 24 $\frac{\text{hours}}{\text{day}}$)?	Start: **N/A**	☐AM ☐PM	End: **N/A**	☐AM ☐PM		
3	Month and year of anticipated start of construction: **N/A**						
4	Month and year of anticipated construction completion: **N/A**						
5	Month and year of anticipated startup of new or modified facility: **N/A**						
6	Will this facility operate at this site for more than one year? ☑ Yes ☐ No						

Section 1-F: Other Facility Information

1	Are there any current Notice of Violations (NOV), compliance orders, or any other compliance or enforcement issues related to this facility? ☐ Yes ☑ No If yes, specify: **N/A**

a	If yes, NOV date or description of issue: **N/A**		NOV Tracking No: **N/A**
b	Is this application in response to any issue listed in 1-F, 1 or 1a above? ☐ Yes ☑ No If Yes, provide the 1c & 1d info below:		
c	Document Title: **N/A**	Date: **N/A**	Requirement # (or page # and paragraph #): **N/A**
d	Provide the required text to be inserted in this permit: **N/A**		
2	Is air quality dispersion modeling or modeling waiver being submitted with this application? ☐ Yes ☑ No		
3	Does this facility require an "Air Toxics" permit under 20.2.72.400 NMAC & 20.2.72.502, Tables A and/or B? ☐ Yes ☑ No		
4	Will this facility be a source of federal Hazardous Air Pollutants (HAP)? ☑ Yes ☐ No		
a	If Yes, what type of source? ☐ **Major** (☐ ≥10 tpy of any single HAP **OR** ☐ ≥25 tpy of any combination of HAPS) **OR** ☑ **Minor** (☐ <10 tpy of any single HAP **AND** ☑ <25 tpy of any combination of HAPS)		
5	Is any unit exempt under 20.2.72.202.B.3 NMAC? ☐ Yes ☑ No		
a	If yes, include the name of company providing commercial electric power to the facility: **N/A** Commercial power is purchased from a commercial utility company, which specifically does not include power generated on site for the sole purpose of the user.		

Section 1-G: Streamline Application

(This section applies to 20.2.72.300 NMAC Streamline applications only)

1	☐ I have filled out Section 18, "Addendum for Streamline Applications." ☑ N/A (This is not a Streamline application.)

Section 1-H: Current Title V Information - Required for all applications from TV Sources

(Title V-source required information for all applications submitted pursuant to 20.2.72 NMAC (Minor Construction Permits), or 20.2.74/20.2.79 NMAC (Major PSD/NNSR applications), and/or 20.2.70 NMAC (Title V))

1	Responsible Official (R.O.) (20.2.70.300.D.2 NMAC): **Graham Bacon**	Phone: **(713) 381-6595**
a	R.O. Title: **Executive Vice President-EHS&T**	R.O. e-mail: **environmental@eprod.com**
b	R. O. Address: **P.O. Box 4324, Houston, TX 77210-4324**	
2	Alternate Responsible Official (20.2.70.300.D.2 NMAC): **Ivan Zirbes**	Phone: **(713) 381-6595**
a	A. R.O. Title: **Vice President-EHS&T**	A. R.O. e-mail: **environmental@eprod.com**
b	A. R. O. Address: **P.O. Box 4324, Houston, TX 77210-4324**	
3	Company's Corporate or Partnership Relationship to any other Air Quality Permittee (List the names of any companies that have operating (20.2.70 NMAC) permits and with whom the applicant for this permit has a corporate or partnership relationship): **N/A**	
4	Name of Parent Company ("Parent Company" means the primary name of the organization that owns the company to be permitted wholly or in part.): **N/A**	
a	Address of Parent Company: **N/A**	
5	Names of Subsidiary Companies ("Subsidiary Companies" means organizations, branches, divisions or subsidiaries, which are owned, wholly or in part, by the company to be permitted.): **N/A**	
6	Telephone numbers & names of the owners' agents and site contacts familiar with plant operations: **N/A**	
7	Affected Programs to include Other States, local air pollution control programs (i.e. Bernalillo) and Indian tribes: Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B)? If yes, state which ones and provide the distances in kilometers: **Yes, Jicarilla Apache Indian Reservation (51.9 kilometers)**	

Section 1-I – Submittal Requirements

Each 20.2.73 NMAC (**NOI**), a 20.2.70 NMAC (**Title V**), a 20.2.72 NMAC (**NSR** minor source), or 20.2.74 NMAC (**PSD**) application package shall consist of the following:

Hard Copy Submittal Requirements:

1) One hard copy **original signed and notarized application package** **printed double sided** **'head-to-toe'** **2-hole punched** as we bind the document on top, not on the side; except Section 2 (landscape tables), which should be head-to-head. Please use **numbered tab separators** in the hard copy submittal(s) as this facilitates the review process. For NOI submittals only, hard copies of UA1, Tables 2A, 2D & 2F, Section 3 and the signed Certification Page are required. Please include a copy of the check on a separate page.

2) If the application is for a minor NSR, PSD, NNSR, or Title V application, include one working hard **copy** for Department use. This copy should be printed in book form, 3-hole punched, and **must be double sided**. Note that this is in addition to the head-to-to 2-hole punched copy required in 1) above. Minor NSR Technical Permit revisions (20.2.72.219.B NMAC) only need to fill out Sections 1-A, 1-B, 3, and should fill out those portions of other Section(s) relevant to the technical permit revision. TV Minor Modifications need only fill out Sections 1-A, 1-B, 1-H, 3, and those portions of other Section(s) relevant to the minor modification. NMED may require additional portions of the application to be submitted, as needed.

3) The entire NOI or Permit application package, including the full modeling study, should be submitted electronically. Electronic files for applications for NOIs, any type of General Construction Permit (GCP), or technical revisions to NSRs must be submitted with compact disk (CD) or digital versatile disc (DVD). For these permit application submittals, **two** CD copies are required (in sleeves, not crystal cases, please), with additional CD copies as specified below. NOI applications require only a single CD submittal. Electronic files for other New Source Review (construction) permits/permit modifications or Title V permits/permit modifications can be submitted on CD/DVD or sent through AQB's secure file transfer service.

Electronic files sent by (check one):

☑ CD/DVD attached to paper application

☐ secure electronic transfer. Air Permit Contact Name_____

Email_____

Phone number _____

a. If the file transfer service is chosen by the applicant, after receipt of the application, the Bureau will email the applicant with instructions for submitting the electronic files through a secure file transfer service. Submission of the electronic files through the file transfer service needs to be completed within 3 business days after the invitation is received, so the applicant should ensure that the files are ready when sending the hard copy of the application. The applicant will not need a password to complete the transfer. **Do not use the file transfer service for NOIs, any type of GCP, or technical revisions to NSR permits.**

4) Optionally, the applicant may submit the files with the application on compact disk (CD) or digital versatile disc (DVD) following the instructions above and the instructions in 5 for applications subject to PSD review.

5) If **air dispersion modeling** is required by the application type, include the **NMED Modeling Waiver** and/or electronic air dispersion modeling report, input, and output files. The dispersion modeling ***summary report only*** should be submitted as hard copy(ies) unless otherwise indicated by the Bureau.

6) If the applicant submits the electronic files on CD and the application is subject to PSD review under 20.2.74 NMAC (PSD) or NNSR under 20.2.79 NMC include,
   a. one additional CD copy for US EPA,
   b. one additional CD copy for each federal land manager affected (NPS, USFS, FWS, USDI) and,
   c. one additional CD copy for each affected regulatory agency other than the Air Quality Bureau.

   If the application is submitted electronically through the secure file transfer service, these extra CDs do not need to be submitted.

Electronic Submittal Requirements [in addition to the required hard copy(ies)]:

1) All required electronic documents shall be submitted as 2 separate CDs or submitted through the AQB secure file transfer service. Submit a single PDF document of the entire application as submitted and the individual documents comprising the application.

2) The documents should also be submitted in Microsoft Office compatible file format (Word, Excel, etc.) allowing us to access the text and formulas in the documents (copy & paste). Any documents that cannot be submitted in a Microsoft Office compatible

format shall be saved as a PDF file from within the electronic document that created the file. If you are unable to provide Microsoft office compatible electronic files or internally generated PDF files of files (items that were not created electronically: i.e. brochures, maps, graphics, etc,), submit these items in hard copy format. We must be able to review the formulas and inputs that calculated the emissions.

3) It is preferred that this application form be submitted as 4 electronic files (3 MSWord docs: Universal Application section 1 [UA1], Universal Application section 3-19 [UA3], and Universal Application 4, the modeling report [UA4]) and 1 Excel file of the tables (Universal Application section 2 [UA2]). Please include as many of the 3-19 Sections as practical in a single MS Word electronic document. Create separate electronic file(s) if a single file becomes too large or if portions must be saved in a file format other than MS Word.

4) The electronic file names shall be a maximum of 25 characters long (including spaces, if any). The format of the electronic Universal Application shall be in the format: "A-3423-FacilityName". The "A" distinguishes the file as an application submittal, as opposed to other documents the Department itself puts into the database. Thus, all electronic application submittals should begin with "A-". Modifications to existing facilities should use the core permit number (i.e. '3423') the Department assigned to the facility as the next 4 digits. Use 'XXXX' for new facility applications. The format of any separate electronic submittals (additional submittals such as non-Word attachments, re-submittals, application updates) and Section document shall be in the format: "A-3423-9-description", where "9" stands for the section # (in this case Section 9-Public Notice). Please refrain, as much as possible, from submitting any scanned documents as this file format is extremely large, which uses up too much storage capacity in our database. Please take the time to fill out the header information throughout all submittals as this will identify any loose pages, including the Application Date (date submitted) & Revision number (0 for original, 1, 2, etc.; which will help keep track of subsequent partial update(s) to the original submittal. Do not use special symbols (#, @, etc.) in file names. The footer information should not be modified by the applicant.

Table of Contents

Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

Unit Number[1]	Source Description	Make	Model #	Serial #	Manufact-urer's Rated Capacity[3] (Specify Units)	Requested Permitted Capacity[3] (Specify Units)	Date of Manufacture[2] / Date of Construction/ Reconstruction[2]	Controlled by Unit # / Emissions vented to Stack #	Source Classi-fication Code (SCC)	For Each Piece of Equipment, Check One	RICE Ignition Type (CI, SI, 4SLB, 4SRB, 2SLB)[4]	Replacing Unit No.
7a/7b	TEG Dehydrator Still Vent & Reboiler	Pesco	Unknown	31648	2 MMscf/day; 125 Mbtu/hr	2 MMscf/day; 125 Mbtu/hr	9/5/1998 9/5/1998	N/A 7a/7b	31000227	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
8	Solar Satum 20-1602	Solar	20-1602	HJ12-S7712	1600 hp	1600 hp	12/1/2006 12/1/2006	N/A 8	20200201	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
9	Solar Satum 20-1602	Solar	20-1602	OHA19-S3625	1600 hp	1600 hp	12/1/2006 12/1/2006	N/A 9	20200201	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
10	Solar Satum 20-1602	Solar	20-1602	30121	1600 hp	1600 hp	7/1/2006 7/1/2006	N/A 10	20200201	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
11	Solar Centaur 40-T4700S	Solar	40-T4700S	OHA18-C8619	4700 hp	4700 hp	5/1/2007 5/1/2007	N/A 11	20200201	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
12a	40-hp Emergency Generator	Kohler	KG2204	SGM32DNSN	40 hp	40 hp	4/1/2016 4/1/2016	N/A 1	20301001	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	SI	N/A
F-1	Fugitive Emissions	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	40600504	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
SSM	SSM Emissions	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
MALF	Malfunction Emissions	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		

[1] Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provide

[2] Specify dates required to determine regulatory applicability

[3] To properly account for power conversion efficiencies, generator set rated capacity shall be reported as the rated capacity of the engine in horsepower, not the kilowatt capacity of the generator se

[4] "4SLB" means four stroke lean burn engine, "4SRB" means four stroke rich burn engine, "2SLB" means two stroke lean burn engine, "CI" means compression ignition, and "SI" means spark ignitio

Table 2-B: Insignificant Activities [1] (20.2.70 NMAC) OR Exempted Equipment (20.2.72 NMAC)

All 20.2.70 NMAC (Title V) applications must list all Insignificant Activities in this table. All 20.2.72 NMAC applications must list Exempted Equipment in this table. If equipment listed on this table is exempt under 20.2.72.202.B.5, include emissions calculations and emissions totals for 202.B.5 "similar functions" units, operations, and activities in Section 6, Calculations. Equipment and activities exempted under 20.2.72.202 NMAC may not necessarily be Insignificant under 20.2.70 NMAC (and vice versa). Unit & stack numbering must be consistent throughout the application package. Per Exemptions Policy 02-012.00 (see http://www.env.nm.gov/aqb/permit/aqb_pol.html), 20.2.72.202.B NMAC Exemptions do not apply, but 20.2.72.202.A NMAC exemptions do apply to NOI facilities under 20.2.73 NMAC. List 20.2.72.301.D.4 NMAC Auxiliary Equipment for Streamline applications in Table 2-A. The List of Insignificant Activities (for TV) can be found online at https://www.env.nm.gov/wp-content/uploads/sites/2/2017/10/InsignificantListTitleV.pdf. TV sources may elect to enter both TV Insignificant Activities and Part 72 Exemptions on this form.

Unit Number	Source Description	Manufacturer	Model No. / Serial No.	Max Capacity / Capacity Units	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5) / Insignificant Activity citation (e.g. IA List Item #1.a)	Date of Manufacture /Reconstruction[2] / Date of Installation /Construction[2]	For Each Piece of Equipment, Check Onc
FL1	Maintenance Flare	unknown	--		20.2.72.202.B.5	unknown	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
					Item #1.a		
T-1	Waste Water Tank	unknown	--	1500 gallon	20.2.72.202.B.5	unknown	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
					Item #1.a		
T-2	Methanol Tank	unknown	--	100 gallon	20.2.72.202.B.5	unknown	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
					Item #1.a		
Vault	Environmental Vault (Stormwater Tank)	unknown	--	21,300 gallon	20.2.72.202.B.5	unknown	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
					Item #1.a		
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced

[1] Insignificant activities exempted due to size or production rate are defined in 20.2.70.300.D.6, 20.2.70.7.Q NMAC, and the NMED/AQB List of Insignificant Activities, dated September 15, 2008. Emissions from these insignificant activities do not need to be reported, unless specifically requested.

[2] Specify date(s) required to determine regulatory applicability.

Table 2-C: Emissions Control Equipment

Unit and stack numbering must correspond throughout the application package. Only list control equipment for TAPs if the TAP's maximum uncontrolled emissions rate is over its respective threshold as listed in 20.2.72 NMAC, Subpart V, Tables A and B. In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device regardless if the applicant takes credit for the reduction in emissions.

Control Equipment Unit No.	Control Equipment Description	Date Installed	Controlled Pollutant(s)	Controlling Emissions for Unit Number(s)[1]	Efficiency (% Control by Weight)	Method used to Estimate Efficiency
Not applicable						

[1] List each control device on a separate line. For each control device, list all emission units controlled by the control device.

Table 2-D: Maximum Emissions (under normal operating conditions)

☑ **This Table was intentionally left blank because it would be identical to Table 2-E.**

Maximum Emissions are the emissions at maximum capacity and prior to (in the absence of) pollution control, emission-reducing process equipment, or any other emission reduction. Calculate the hourly emissions using the worst case hourly emissions for each pollutant. For each pollutant, calculate the annual emissions as if the facility were operating at maximum plant capacity without pollution controls for 8760 hours per year, unless otherwise approved by the Department. List Hazardous Air Pollutants (HAP) & Toxic Air Pollutants (TAPs) in Table 2-I. Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Totals																		

[1]**Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but PM is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-E: Requested Allowable Emissions

Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or $1.41E^{-4}$).

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
7a					1.50	6.44												
7b	0.02	0.09	0.03	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				
8	6.40	28.20	7.90	34.40	0.56	2.50	0.03	0.14	0.11	0.47	0.11	0.47	0.11	0.47				
9	6.40	28.20	7.90	34.40	0.56	2.50	0.03	0.14	0.11	0.47	0.11	0.47	0.11	0.47				
10	6.40	28.20	7.90	34.40	0.56	2.50	0.03	0.14	0.11	0.47	0.11	0.47	0.11	0.47				
11	3.53	15.46	4.31	18.86	1.24	5.41	0.07	0.31	0.23	1.02	0.23	1.02	0.23	1.02				
12a	0.87	0.22	1.00	0.25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				
F-1					4.30	18.60												
MALF						10.00												
Totals	23.62	100.37	29.04	122.45	8.74	47.97	0.18	0.75	0.58	2.45	0.58	2.45	0.58	2.45	-	-	-	-

[1] **Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-F: Additional Emissions during Startup, Shutdown, and Routine Maintenance (SSM)

☐ This table is intentionally left blank since all emissions at this facility due to routine or predictable startup, shutdown, or scehduled maintenance are no higher than those listed in Table 2-E and a malfunction emission limit is not already permitted or requested. If you are required to report GHG emissions as described in Section 6a, include any GHG emissions during Startup, Shutdown, and/or Scheduled Maintenance (SSM) in Table 2-P. Provide an explanations of SSM emissions in Section 6 and 6a.

All applications for facilities that have emissions during routine our predictable startup, shutdown or scheduled maintenance (SSM)[1], including NOI applications, must include in this table the Maximum Emissions during routine or predictable startup, shutdown and scheduled maintenance (20.2.7 NMAC, 20.2.72.203.A.3 NMAC, 20.2.73.200.D.2 NMAC). In Section 6 and 6a, provide emissions calculations for all SSM emissions reported in this table. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (https://www.env.nm.gov/aqb/permit/aqb_pol.html) for more detailed instructions. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM[2]		PM10[2]		PM2.5[2]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
SSM	-	-	-	-	7.21	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Totals	-	-	-	-	7.21	1.80	-	-	-	-	-	-	-	-	-	-	-	-

[1] **For instance**, if the short term steady-state Table 2-E emissions are 5 lb/hr and the SSM rate is 12 lb/hr, enter 7 lb/hr in this table. If the annual steady-state Table 2-E emissions are 21.9 TPY, and the number of scheduled SSM events result in annual emissions of 31.9 TPY, enter 10.0 TPY in the table below.

[2] **Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-G: Stack Exit and Fugitive Emission Rates for Special Stacks

☑ I have elected to leave this table blank because this facility does not have any stacks/vents that split emissions from a single source or combine emissions from more than one source listed in table 2-A. Additionally, the emission rates of all stacks match the Requested allowable emission rates stated in Table 2-E.

Use this table to list stack emissions (requested allowable) from split and combined stacks. List Toxic Air Pollutants (TAPs) and Hazardous Air Pollutants (HAPs) in Table 2-I. List all fugitives that are associated with the normal, routine, and non-emergency operation of the facility. Unit and stack numbering must correspond throughout the application package. Refer to Table 2-E for instructions on use of the "-" symbol and on significant figures.

Stack No.	Serving Unit Number(s) from Table 2-A	NOx		CO		VOC		SOx		PM		PM10		PM2.5		□ H_2S or □ Lead	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Totals:																	

Table 2-H: Stack Exit Conditions

Unit and stack numbering must correspond throughout the application package. Include the stack exit conditions for each unit that emits from a stack, including blowdown venting parameters and tank emissions. If the facility has multiple operating scenarios, complete a separate Table 2-H for each scenario and, for each, type scenario name here:

Stack Number	Serving Unit Number(s) from Table 2-A	Orientation (H-Horizontal V=Vertical)	Rain Caps (Yes or No)	Height Above Ground (ft)	Temp. (F)	Flow Rate		Moisture by Volume (%)	Velocity (ft/sec)	Inside Diameter (ft)
						(acfs)	(dscfs)			
7a/7b	7b	V	No	20	600	10		12%	5	0.83
8	8	V	No	30	922	300		12%	172	2.33
9	9	V	No	30	922	330		12%	172	2.33
10	10	V	No	30	922	330		12%	172	2.33
11	11	V	No	30	922	780		12%	111	2.50
12a	12a	V	No	5	600	2.6		12%	40.00	0.12

Table 2-I: Stack Exit and Fugitive Emission Rates for HAPs and TAPs

In the table below, report the Potential to Emit for each HAP from each regulated emission unit listed in Table 2-A, only if the entire facility emits the HAP at a rate greater than or equal to one (1) ton per year For each such emission unit, HAPs shall be reported to the nearest 0.1 tpy. Each facility-wide Individual HAP total and the facility-wide Total HAPs shall be the sum of all HAP sources calculated to the nearest 0.1 ton per year. Per 20.2.72.403.A.1 NMAC, facilities not exempt [see 20.2.72.402.C NMAC] from TAP permitting shall report each TAP that has an uncontrolled emission rate in excess of its pounds per hour screening level specified in 20.2.72.502 NMAC. TAPs shall be reported using one more significant figure than the number of significant figures shown in the pound per hour threshold corresponding to the substance. Use the HAP nomenclature as it appears in Section 112 (b) of the 1990 CAAA and the TAP nomenclature as it listed in 20.2.72.502 NMAC. Include tank-flashing emissions estimates of HAPs in this table. For each HAP or TAP listed, fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected or the pollutant is emitted in a quantity less than the threshold amounts described above.

Stack No.	Unit No.(s)	Total HAPs		Acetaldehyde ☑ HAP or ☐ TAP		Acrolein ☑ HAP or ☐ TAP		Benzene ☑ HAP or ☐ TAP		Ethylbenzene ☑ HAP or ☐ TAP		Formaldehyde ☑ HAP or ☐ TAP		n-Hexane ☑ HAP or ☐ TAP		Toluene ☑ HAP or ☐ TAP		Xylene ☑ HAP or ☐ TAP	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
7a	7a	0.47	2.05	--	--	--	--	0.07	0.32	0.02	0.08	--	--	0.04	0.17	0.15	0.67	0.18	0.79
7b	7b	0.04	0.04	--	--	--	--	0.01	0.01	--	--	0.01	0.01	0.01	0.01	0.01	0.01	--	--
8	8	0.09	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	--	--	0.01	0.01	0.01	0.01
9	9	0.09	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	--	--	0.01	0.01	0.01	0.01
10	10	0.09	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	--	--	0.01	0.01	0.01	0.01
11	11	0.11	0.2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.3	0.11	--	--	0.01	0.01	0.01	0.01
12a	12a	0.07	0.07	0.01	0.01	0.01	0.01	0.01	0.01	--	--	0.01	0.01	--	--	0.01	0.01	0.01	0.01
T-2	T-2	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-1	Fugitives	0.48	2.11	--	--	--	--	0.04	0.2	0.01	0.04	--	--	0.27	1.20	0.14	0.60	0.02	0.07
SSM	SSM	1.59	0.07	--	--	--	--	--	--	--	--	--	--	1.40	0.03	0.06	0.01	0.04	0.01
MALF	MALF	--	--	--	--	--	--	0.08	0.01	0.01	0.01	--	--	--	--	--	--	--	--
Totals:		3.04	4.94	0.05	0.05	0.05	0.05	0.25	0.59	0.08	0.17	0.35	0.28	1.72	1.41	0.41	1.34	0.29	0.92

Table 2-J: Fuel

Specify fuel characteristics and usage. Unit and stack numbering must correspond throughout the application package.

Unit No.	Fuel Type (low sulfur Diesel, ultra low sulfur diesel, Natural Gas, Coal, …)	Fuel Source: purchased commercial, pipeline quality natural gas, residue gas, raw/field natural gas, process gas (e.g. SRU tail gas) or other	Specify Units				
			Lower Heating Value	Hourly Usage	Annual Usage	% Sulfur	% Ash
7b	Natural Gas	Natural Gas	939 Btu/scf	0.125 MMBtu/hr	1095 MMBtu/yr	0.75 gr/100ft^3	N/A
8	Natural Gas	Natural Gas	939 Btu/scf	16.09 MMBtu/hr	140948 MMBtu/yr	0.75 gr/100ft^3	N/A
9	Natural Gas	Natural Gas	939 Btu/scf	16.09 MMBtu/hr	140948 MMBtu/yr	0.75 gr/100ft^3	N/A
10	Natural Gas	Natural Gas	939 Btu/scf	16.09 MMBtu/hr	140948 MMBtu/yr	0.75 gr/100ft^3	N/A
11	Natural Gas	Natural Gas	939 Btu/scf	47.26 MMBtu/hr	414026 MMBtu/yr	0.75 gr/100ft^3	N/A
12a	Propane	Propane	2371 Btu/scf	0.27 MMBtu/hr	133.96 MMBtu/yr	0.75 gr/100ft^3	N/A

Table 2-K: Liquid Data for Tanks Listed in Table 2-L

For each tank, list the liquid(s) to be stored in each tank. If it is expected that a tank may store a variety of hydrocarbon liquids, enter "mixed hydrocarbons" in the Composition column for that tank and enter the corresponding data of the most volatile liquid to be stored in the tank. If tank is to be used for storage of different materials, list all the materials in the "All Calculations" attachment, run the newest version of TANKS on each, and use the material with the highest emission rate to determine maximum uncontrolled and requested allowable emissions rate. The permit will specify the most volatile category of liquids that may be stored in each tank. Include appropriate tank-flashing modeling input data. Use additional sheets if necessary. Unit and stack numbering must correspond throughout the application package.

Tank No.	SCC Code	Material Name	Composition	Liquid Density (lb/gal)	Vapor Molecular Weight (lb/lb*mol)	Average Storage Conditions		Max Storage Conditions	
						Temperature (°F)	True Vapor Pressure (psia)	Temperature (°F)	True Vapor Pressure (psia)
Not applicable									

Table 2-L: Tank Data

Include appropriate tank-flashing modeling input data. Use an addendum to this table for unlisted data categories. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary. See reference Table 2-L2. Note: 1.00 bbl = 10.159 M3 = 42.0 gal

Tank No.	Date Installed	Materials Stored	Seal Type (refer to Table 2-LR below)	Roof Type (refer to Table 2-LR below)	Capacity		Diameter (M)	Vapor Space (M)	Color (from Table VI-C)		Paint Condition (from Table VI-C)	Annual Throughput (gal/yr)	Turn-overs (per year)
					(bbl)	(M^3)			Roof	Shell			
Not applicable													

Table 2-L2: Liquid Storage Tank Data Codes Reference Table

Roof Type	Seal Type, Welded Tank Seal Type		Seal Type, Riveted Tank Seal Type		Roof, Shell Color	Paint Condition
FX: Fixed Roof	**Mechanical Shoe Seal**	**Liquid-mounted resilient seal**	**Vapor-mounted resilient seal**	**Seal Type**	**WH**: White	Good
IF: Internal Floating Roof	**A**: Primary only	**A**: Primary only	**A**: Primary only	**A**: Mechanical shoe, primary only	**AS**: Aluminum (specular)	Poor
EF: External Floating Roof	**B**: Shoe-mounted secondary	**B**: Weather shield	**B**: Weather shield	**B**: Shoe-mounted secondary	**AD**: Aluminum (diffuse)	
P: Pressure	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**LG**: Light Gray	
					MG: Medium Gray	
					BL: Black	
					OT: Other (specify)	

Note: 1.00 bbl = 0.159 M^3 = 42.0 gal

Table 2-M: Materials Processed and Produced (Use additional sheets as necessary.)

Material Processed				Material Produced			
Description	**Chemical Composition**	**Phase (Gas, Liquid, or Solid)**	**Quantity (specify units)**	**Description**	**Chemical Composition**	**Phase**	**Quantity (specify units)**
Not applicable							

Table 2-N: CEM Equipment

Enter Continuous Emissions Measurement (CEM) Data in this table. If CEM data will be used as part of a federally enforceable permit condition, or used to satisfy the requirements of a state or federal regulation, include a copy of the CEM's manufacturer specification sheet in the Information Used to Determine Emissions attachment. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Stack No.	Pollutant(s)	Manufacturer	Model No.	Serial No.	Sample Frequency	Averaging Time	Range	Sensitivity	Accuracy
Not applicable									

Table 2-O: Parametric Emissions Measurement Equipment

Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Unit No.	Parameter/Pollutant Measured	Location of Measurement	Unit of Measure	Acceptable Range	Frequency of Maintenance	Nature of Maintenance	Method of Recording	Averaging Time
Not applicable								

Table 2-P: Greenhouse Gas Emissions

Applications submitted under 20.2.70, 20.2.72, & 20.2.74 NMAC are required to complete this Table. Power plants, Title V major sources, and PSD major sources must report and calculate all GHG emissions for each unit. Applicants must report potential emission rates in short tons per year (see Section 6.a for assistance). Include GHG emissions during Startup, Shutdown, and Scheduled Maintenance in this table. For minor source facilities that are not power plants, are not Title V, or are not PSD, there are three options for reporting GHGs 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHG as a second separate unit; OR 3) check the following box ☐ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

		CO_2 ton/yr	N_2O ton/yr	CH_4 ton/yr	SF_6 ton/yr	PFC/HFC ton/yr[2]									**Total GHG** Mass Basis ton/yr[4]	**Total CO_2e** ton/yr[5]
Unit No.	**GWPs [1]**	**1**	**298**	**25**	**22,800**	**footnote 3**										
8	**mass GHG**	8,217.09	0.02	0.16	0.00	0.00									8,217.26	
	CO_2e	8,217.09	4.62	3.88	0.00	0.00										8,225.58
9	**mass GHG**	8,217.09	0.02	0.16	0.00	0.00									8,217.26	
	CO_2e	8,217.09	4.62	3.88	0.00	0.00										8,225.58
10	**mass GHG**	8,217.09	0.02	0.16	0.00	0.00									8,217.26	
	CO_2e	8,217.09	4.62	3.88	0.00	0.00										8,225.58
11	**mass GHG**	18,024.06	0.03	0.34	0.00	0.00									18,024.43	
	CO_2e	18,024.06	10.13	8.50	0.00	0.00										18,042.70
12a	**mass GHG**	7.37	0.00	0.02	0.00	0.00									7.38	
	CO_2e	7.37	0.00	0.39	0.00	0.00										7.75
7b	**mass GHG**	64.00	0.00	0.00	0.00	0.00									64.00	
	CO_2e	64.00	0.04	0.03	0.00	0.00										64.06
FL1	**mass GHG**	135.01	0.00	0.00	0.00	0.00									135.01	
	CO_2e	135.01	0.08	0.06	0.00	0.00										135.15
SSM	**mass GHG**	0.22	0.00	6.76	0.00	0.00									6.98	
	CO_2e	0.22	0.00	169.02	0.00	0.00										169.24
	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
	mass GHG															
	CO2e															
Total	**mass GHG**	42,881.92	0.08	7.59	0.00	0.00									42,889.58	
	CO_2e	42,881.92	24.11	189.63	0.00	0.00										43,095.65

[1] **GWP** (Global Warming Potential): Applicants must use the most current GWPs codified in Table A-1 of 40 CFR part 98. GWPs are subject to change, therefore, applicants need to check 40 CFR 98 to confirm GWP values.

[2] For **HFCs** or **PFCs** describe the specific HFC or PFC compound and use a separate column for each individual compound.

[3] For each new compound, enter the appropriate GWP for each HFC or PFC compound from Table A-1 in 40 CFR 98.

[4] Green house gas emissions on a **mass basis** is the ton per year green house gas emission before adjustment with its GWP.

[5] **CO_2e** means Carbon Dioxide Equivalent and is calculated by multiplying the TPY mass emissions of the green house gas by its GWP.

Section 3

Application Summary

The **Application Summary** shall include a brief description of the facility and its process, the type of permit application, the applicable regulation (i.e. 20.2.72.200.A.X, or 20.2.73 NMAC) under which the application is being submitted, and any air quality permit numbers associated with this site. If this facility is to be collocated with another facility, provide details of the other facility including permit number(s). In case of a revision or modification to a facility, provide the lowest level regulatory citation (i.e. 20.2.72.219.B.1.d NMAC) under which the revision or modification is being requested. Also describe the proposed changes from the original permit, how the proposed modification will affect the facility's operations and emissions, de-bottlenecking impacts, and changes to the facility's major/minor status (both PSD & Title V).

The **Process Summary** shall include a brief description of the facility and its processes.

Startup, Shutdown, and Maintenance (SSM) routine or predictable emissions: Provide an overview of how SSM emissions are accounted for in this application. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions.

Facility Description:
Mid America Pipeline Company LLC (MAPL) owns and Enterprise Products Operating LLC (Enterprise) operates the Huerfano Pump Station (Huerfano). Huerfano is located in Township 26N, Range 10W, Section 21, approximately 17 miles south of Bloomfield, New Mexico in San Juan County.

Process Description:
Huerfano Pump Station assists with the transport of natural gas liquids (NGL) from various processing plants through the MAPL pipelines. The turbines drive the pumps used to move the NGLs through the pipeline. The flare is used during maintenance activities to ensure station safety. A dehydrator is used to dry fuel gas for the turbines when the NMGCO is working on their gas lines.

Permit Application:
MAPL is submitting this Title V Permit renewal application under regulation 20.2.70.300.B(2) NMAC. The application is being submitted at least 12 months prior to the date of permit expiration. There are no process or equipment changes being requested in this application and all equipment will remain as currently permitted.

Air Permits:
This site is currently authorized under NSR Air Quality Permit No. 0888-M6R2 and Operating Permit No. P201-R3. Prior to permit issuance, MAPL/Enterprise would like the opportunity to review a complete copy of the draft permit and provide comments, as needed.

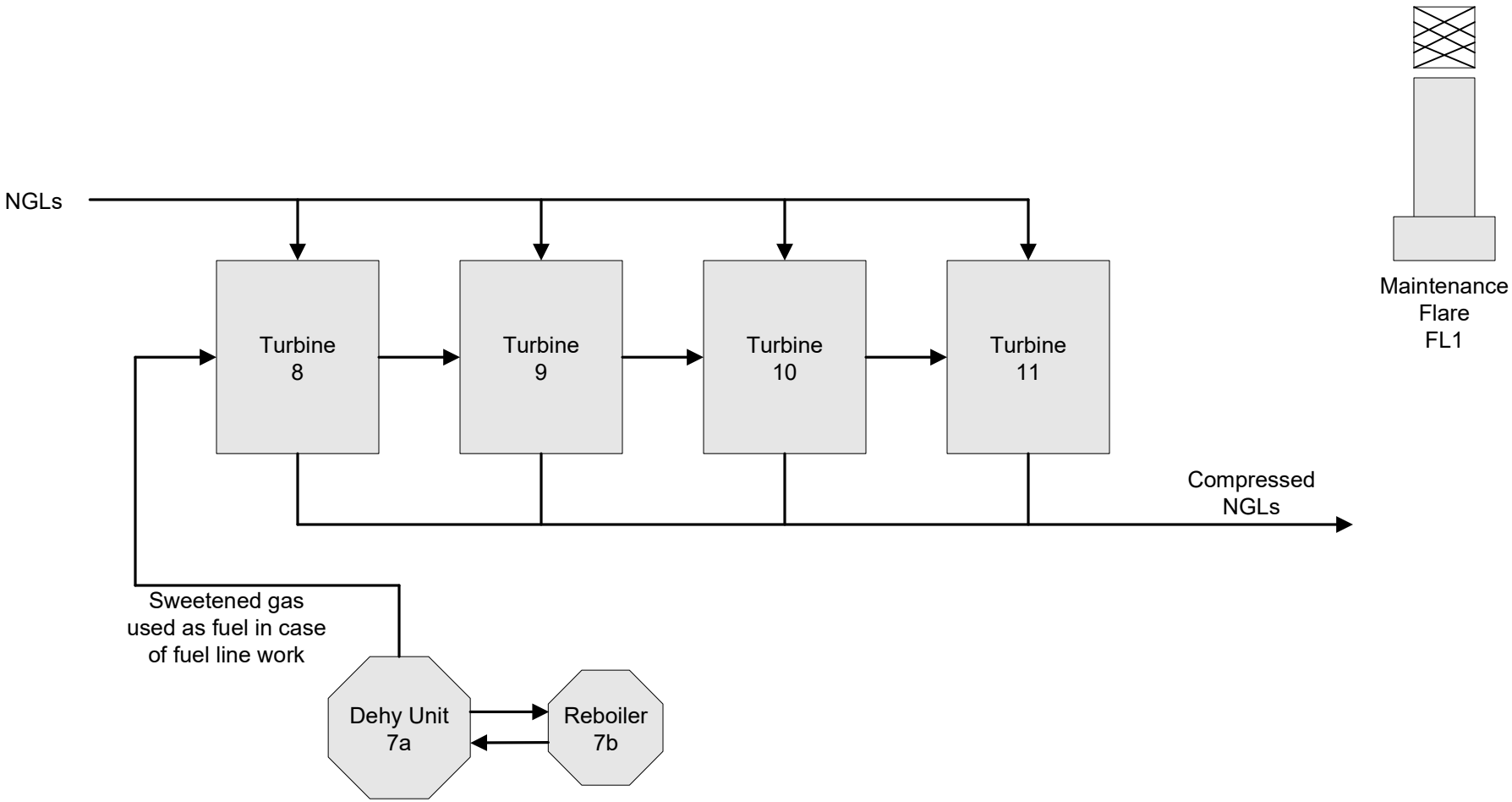
This application is being submitted for the renewal of Operating Permit No. P201-R3. No revisions are proposed.

Section 4

Process Flow Sheet

A **process flow sheet** and/or block diagram indicating the individual equipment, all emission points and types of control applied to those points. The unit numbering system should be consistent throughout this application.

A process flow diagram is attached.



Miscellaneous Storage Tanks

Emergency Generator Engine 12a

ELLIANT ENVIRONMENTAL, LLC

7804 Pan American Fwy., Suite 5
Albuquerque, NM 87109

Process Flow Diagram

Huerfano Pump Station
Title V Renewal Application
San Juan County, NM

Mid-America Pipeline Company, LLC

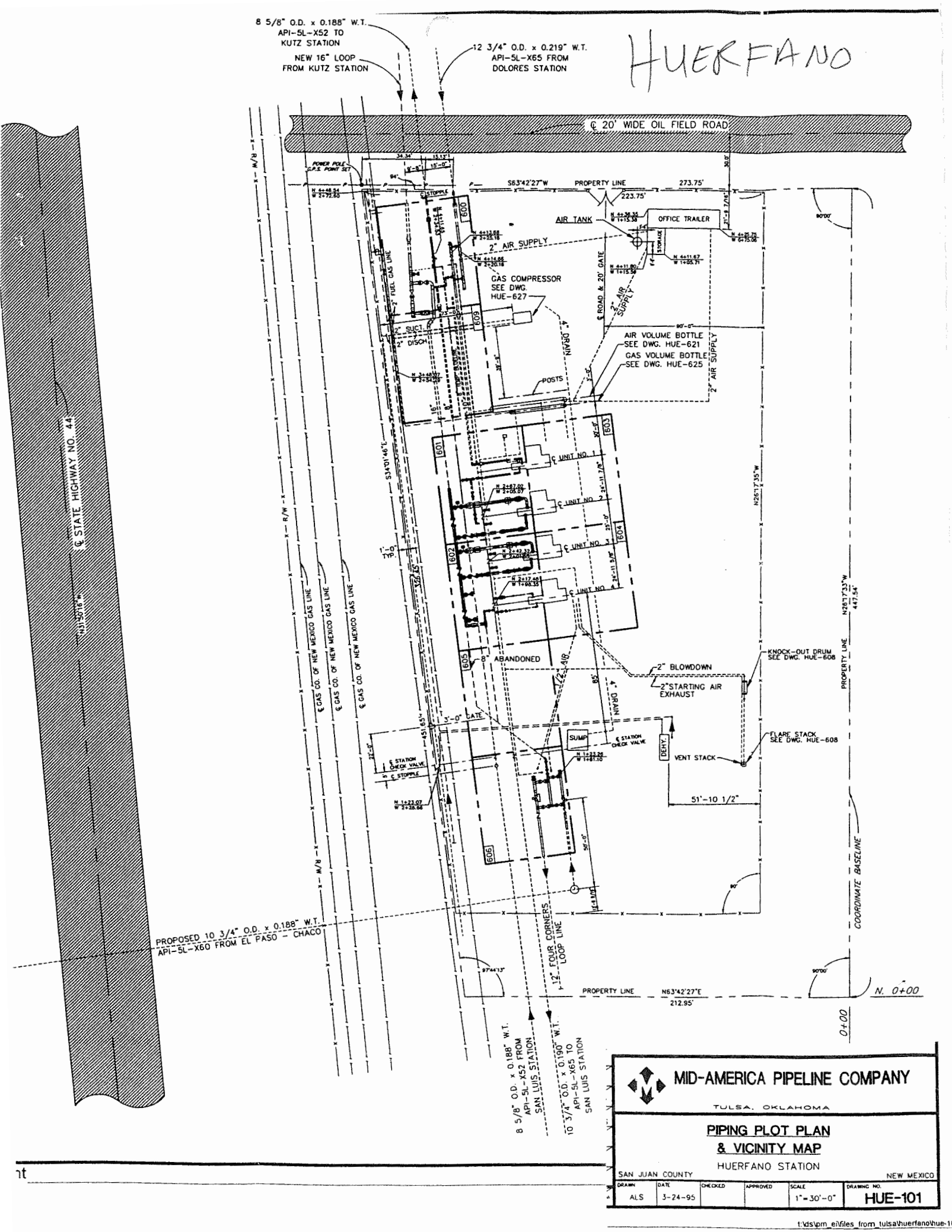
Scale:	Drawn by:	Date:	Project No.:	File Name:	Figure:
Drawing Not to Scale	MDF	2/17/2022	066-039	**Huerfano Figures**	Section 4
	Chk'd by:	Date:			

Section 5

Plot Plan Drawn To Scale

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.

A plot plan is attached.



MID-AMERICA PIPELINE COMPANY

TULSA, OKLAHOMA

PIPING PLOT PLAN & VICINITY MAP

HUERFANO STATION

SAN JUAN COUNTY NEW MEXICO

DRAWN	DATE	CHECKED	APPROVED	SCALE	DRAWING NO.
ALS	3-24-95			1"=30'-0"	HUE-101

t:\ds\pm_eifiles_from_tulsa\huerfano\hue-101

Section 6

All Calculations

Show all calculations used to determine both the hourly and annual controlled and uncontrolled emission rates. All calculations shall be performed keeping a minimum of three significant figures. Document the source of each emission factor used (if an emission rate is carried forward and not revised, then a statement to that effect is required). If identical units are being permitted and will be subject to the same operating conditions, submit calculations for only one unit and a note specifying what other units to which the calculations apply. All formulas and calculations used to calculate emissions must be submitted. The "Calculations" tab in the UA2 has been provided to allow calculations to be linked to the emissions tables. Add additional "Calc" tabs as needed. If the UA2 or other spread sheets are used, all calculation spread sheet(s) shall be submitted electronically in Microsoft Excel compatible format so that formulas and input values can be checked. Format all spread sheets and calculations such that the reviewer can follow the logic and verify the input values. Define all variables. If calculation spread sheets are not used, provide the original formulas with defined variables. Additionally, provide subsequent formulas showing the input values for each variable in the formula. All calculations, including those calculations are imbedded in the Calc tab of the UA2 portion of the application, the printed Calc tab(s), should be submitted under this section.

Tank Flashing Calculations: The information provided to the AQB shall include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., NOI, permit, or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis. If Hysis is used, all relevant input parameters shall be reported, including separator pressure, gas throughput, and all other relevant parameters necessary for flashing calculation.

SSM Calculations: It is the applicant's responsibility to provide an estimate of SSM emissions or to provide justification for not doing so. In this Section, provide emissions calculations for Startup, Shutdown, and Routine Maintenance (SSM) emissions listed in the Section 2 SSM and/or Section 22 GHG Tables and the rational for why the others are reported as zero (or left blank in the SSM/GHG Tables). Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on calculating SSM emissions. If SSM emissions are greater than those reported in the Section 2, Requested Allowables Table, modeling may be required to ensure compliance with the standards whether the application is NSR or Title V. Refer to the Modeling Section of this application for more guidance on modeling requirements.

Glycol Dehydrator Calculations: The information provided to the AQB shall include the manufacturer's maximum design recirculation rate for the glycol pump. If GRI-Glycalc is used, the full input summary report shall be included as well as a copy of the gas analysis that was used.

Road Calculations: Calculate fugitive particulate emissions and enter haul road fugitives in Tables 2-A, 2-D and 2-E for:

1. If you transport raw material, process material and/or product into or out of or within the facility and have PER emissions greater than 0.5 tpy.
2. If you transport raw material, process material and/or product into or out of the facility more frequently than one round trip per day.

Significant Figures:
A. All emissions standards are deemed to have at least two significant figures, but not more than three significant figures.
B. At least 5 significant figures shall be retained in all intermediate calculations.
C. In calculating emissions to determine compliance with an emission standard, the following rounding off procedures shall be used:

(1) If the first digit to be discarded is less than the number 5, the last digit retained shall not be changed;
(2) If the first digit discarded is greater than the number 5, or if it is the number 5 followed by at least one digit other than the number zero, the last figure retained shall be increased by one unit; **and**
(3) If the first digit discarded is exactly the number 5, followed only by zeros, the last digit retained shall be rounded upward if it is an odd number, but no adjustment shall be made if it is an even number.
(4) The final result of the calculation shall be expressed in the units of the standard.

Control Devices: In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device

regardless if the applicant takes credit for the reduction in emissions. The applicant can indicate in this section of the application if they chose to not take credit for the reduction in emission rates. For notices of intent submitted under 20.2.73 NMAC, only uncontrolled emission rates can be considered to determine applicability unless the state or federal Acts require the control. This information is necessary to determine if federally enforceable conditions are necessary for the control device, and/or if the control device produces its own regulated pollutants or increases emission rates of other pollutants.

This renewal application does not alter the emissions at the station. The following information is provided for completeness.

Emission Calculation Details:
A summary of emissions for the Huerfano Pump Station is included in this section.

Turbines, Unit IDs 8, 9, 10, and 11
The turbines in this application are existing sources. NOx, CO, and VOC emission factors are from vendor data. The SO2 factor is from AP-42, Table 3.1-2A and is based on 0.75 gr S/100 scf. The CO_2, N_2O, and CH_4 emission factors are from 40 CFR Part 98 Tables C-1 and C-2 for natural gas. The fuel consumption data is from the vendor. HAP emission factors are from AP-42 Table 3.1-3.

Generator, Unit ID 12a
The propane-fired generator emissions are estimated using NSPS JJJJ requirements (i.e., HC + NOx = 13.4 g/KW-hr) and factors from AP-42 Table 3.2-3 for criteria pollutants.

Dehydrator, Unit ID 7a
Emissions from the dehydrator were estimated using the GRI GLYCalc Version 4.0 program. These files can be seen in Section 7.

Dehydrator Reboiler, Unit ID 7b
The dehydrator reboiler emissions are estimated using factors from AP-42 Table 1.4-1 and Table 1.4-2 for criteria pollutants and Table 1.4-3 for HAPs. The CO_2, N_2O, and CH_4 emission factors are from 40 CFR Part 98 Tables C-1 and C-2 for natural gas.

Flare, Unit ID FL1
A flare is used at the facility for flaring NGLs during maintenance events to ensure plant safety. When operators at the station perform maintenance on the equipment, it is sometimes necessary to flare off accumulated NGLs to allow safe operation. The maintenance most often includes changing the seal flush filters on each turbine/pump package and annual pump seal changes. NOx and CO emissions are estimated using factors from Texas Commission on Environmental Quality guidance.

Fugitives, Unit ID F-1
The VOC fugitive emissions are based on a surrogate gas analysis. A copy of the analysis and the basis for the fugitive emission factors (AP-42) are provided in Section 7.

Storage Tanks
All storage tanks in this application are existing tanks. EPA's TANKS 4.0.9d program was used to estimate VOC emissions from the storage tanks (included in Section 7). All tanks meet the requirements of exemption 20.2.72.202.B.5.

Startup, Shutdown, and Maintenance (SSM) Emissions, Unit ID SSM
This site is expected to experience SSM emissions associated with turbine maintenance and startups. SSM event volumes and frequencies are based on historical event data and process knowledge.

Malfunction Emissions, Unit ID MALF
This site is expected to experience malfunction emissions from various units. Accordingly, 10 tons per year of malfunction emissions are included in the permit pursuant to the NMED IMPLEMENTATION GUIDANCE FOR PERMITTING SSM EMISSIONS AND EXCESS EMISSIONS (dated June 2012).

Section 6.a

Green House Gas Emissions

(Submitting under 20.2.70, 20.2.72 20.2.74 NMAC)

Title V (20.2.70 NMAC), Minor NSR (20.2.72 NMAC), and PSD (20.2.74 NMAC) applicants must estimate and report greenhouse gas (GHG) emissions to verify the emission rates reported in the public notice, determine applicability to 40 CFR 60 Subparts, and to evaluate Prevention of Significant Deterioration (PSD) applicability. GHG emissions that are subject to air permit regulations consist of the sum of an aggregate group of these six greenhouse gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Calculating GHG Emissions:

1. Calculate the ton per year (tpy) GHG mass emissions and GHG CO_2e emissions from your facility.
2. GHG mass emissions are the sum of the total annual tons of greenhouse gases without adjusting with the global warming potentials (GWPs). GHG CO_2e emissions are the sum of the mass emissions of each individual GHG multiplied by its GWP found in Table A-1 in 40 CFR 98 Mandatory Greenhouse Gas Reporting.
3. Emissions from routine or predictable start up, shut down, and maintenance must be included.
4. Report GHG mass and GHG CO_2e emissions in Table 2-P of this application. Emissions are reported in **short** tons per year and represent each emission unit's Potential to Emit (PTE).
5. All Title V major sources, PSD major sources, and all power plants, whether major or not, must calculate and report GHG mass and CO2e emissions for each unit in Table 2-P.
6. For minor source facilities that are not power plants, are not Title V, and are not PSD there are three options for reporting GHGs in Table 2-P: 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHGs as a second separate unit; 3) or check the following ☐ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

Sources for Calculating GHG Emissions:

- Manufacturer's Data
- AP-42 Compilation of Air Pollutant Emission Factors at http://www.epa.gov/ttn/chief/ap42/index.html
- EPA's Internet emission factor database WebFIRE at http://cfpub.epa.gov/webfire/
- 40 CFR 98 Mandatory Green House Gas Reporting except that tons should be reported in short tons rather than in metric tons for the purpose of PSD applicability.
- API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. August 2009 or most recent version.
- Sources listed on EPA's NSR Resources for Estimating GHG Emissions at http://www.epa.gov/nsr/clean-air-act-permitting-greenhouse-gases:

Global Warming Potentials (GWP):
Applicants must use the Global Warming Potentials codified in Table A-1 of the most recent version of 40 CFR 98 Mandatory Greenhouse Gas Reporting. The GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO_2 over a specified time period.

"Greenhouse gas" for the purpose of air permit regulations is defined as the aggregate group of the following six gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. **(20.2.70.7 NMAC, 20.2.74.7 NMAC).** You may also find GHGs defined in 40 CFR 86.1818-12(a).

Metric to Short Ton Conversion:
Short tons for GHGs and other regulated pollutants are the standard unit of measure for PSD and title V permitting programs. 40 CFR 98 Mandatory Greenhouse Reporting requires metric tons.
1 metric ton = 1.10231 short tons (per Table A-2 to Subpart A of Part 98 – Units of Measure Conversions)

Green House Gas emissions have been included in the emission calculations and Form UA2.

Turbine Emissions (IDs 8, 9, 10, & 11) - Criteria Pollutants Huerfano Pump Station
Huerfano Pump Station

Source No.	8		9		10		11	
Turbine Make / Model	Solar Saturn 20-1602		Solar Saturn 20-1602		Solar Saturn 20-1602		Solar Centaur 40-T4700S	
Control Device	(none)		(none)		(none)		(none)	
Fuel Consumption	10,056 Btu/hp-hr		10,056 Btu/hp-hr		10,056 Btu/hp-hr		7,509 Btu/hp-hr	
Nameplate Horsepower	1,600 HP		1,600 HP		1,600 HP		4,700 HP	
Operating Hours	8760 Hours/yr		8,760 Hours/yr		8,760 Hours/yr		8,760 Hours/yr	
NO_x Factor	0.400 lb/MMBTU		0.400 lb/MMBTU		0.400 lb/MMBTU		0.1 lb/MMBTU	
CO Factor	0.488 lb/MMBTU		0.488 lb/MMBTU		0.488 lb/MMBTU		0.122 lb/MMBTU	
VOC Factor	0.035 lb/MMBTU		0.035 lb/MMBTU		0.035 lb/MMBTU		0.035 lb/MMBTU	
PM_{10} Factor	6.060E-03 lb/MMBTU		6.060E-03 lb/MMBTU		6.060E-03 lb/MMBTU		6.60E-03 lb/MMBTU	
SO_2 Factor	2.00E-03 lb/MMBTU		2.00E-03 lb/MMBTU		2.00E-03 lb/MMBTU		2.00E-03 lb/MMBTU	
CO_2 Factor	5.30E+01 kg/MMBTU		5.30E+01 kg/MMBTU		5.30E+01 kg/MMBTU		5.30E+01 kg/MMBTU	
N_2O Factor	1.00E-04 kg/MMBTU		1.00E-04 kg/MMBTU		1.00E-04 kg/MMBTU		1.00E-04 kg/MMBTU	
CH_4 Factor	1.00E-03 kg/MMBTU		1.00E-03 kg/MMBTU		1.00E-03 kg/MMBTU		1.00E-03 kg/MMBTU	
Pollutant	**lb/hr**	**tpy**	**lb/hr**	**tpy**	**lb/hr**	**tpy**	**lb/hr**	**tpy**
NO_x	6.44	28.19	6.44	28.19	6.44	28.19	3.53	15.46
CO	7.85	34.39	7.85	34.39	7.85	34.39	4.31	18.86
VOC	0.56	2.47	0.56	2.47	0.56	2.47	1.24	5.41
PM_{10}	0.10	0.43	0.10	0.43	0.10	0.43	0.23	1.02
SO_2	0.03	0.14	0.03	0.14	0.03	0.14	0.07	0.31
CO_2	1876.05	8217.09	1876.05	8217.09	1876.05	8217.09	4115.08	18024.06
N_2O	0.004	0.02	0.004	0.02	0.004	0.02	0.008	0.03
CH_4	0.04	0.16	0.04	0.16	0.04	0.16	0.08	0.34

Site Elevation (ft) = 6525

Δ = 29.9 - (elevation/1000) / 29.9 = 0.78 Derated Horsepower = Δ x sea-level horsepower rating

Notes

1) Emission Factors for NOx, CO, and VOC are from the vendor.
2) The PM and SO2 factors are from AP-42, Table 3.1.2A. The SO2 factor is adjusted for a sulfur content of 0.75 gr/100 scf.
3) Emission Factor for CO2 is from 40 CFR 98, Table C-1 - Default CO2 Emissions Factors
4) Emission Factor for N2O and CH4 are from 40 CFR 98, Table C-2, Default CH4 and N2O Emission Factors for Various Types of Fuel
5) Fuel Consumption figure is from vendor.

AP-42 Table 3.1-2a SO2 factor adjusted as follows:

$SO_2 = 0.94S$

S = (0.75 grains) / (7000 grains/lb) = 0.00011 lb/cf

Natural Gas Density = 0.51 lb/cf, so S = (0.00011 lb) / (5.1 lb) x 100 = 0.00215%

$SO_2 = 0.94 \times 0.00215 = 2.0 \times 10^{-3}$ lb/MMBtu

Turbine Emissions (IDs 8, 9, 10, & 11) - HAPs
Huerfano Pump Station

	Source No.	8		9		10		11	
	Turbine Description:	Solar Saturn 20-1602		Solar Saturn 20-1602		Solar Saturn 20-1602		Solar Centaur 40-T4700S	
	Annual Operating Hours (hrs/yr):	8,760		8,760		8,760		8,760	
	Fuel Consumption (Btu/hp-hr):	10,056		10,056		10,056		7,509	
	Rated Turbine Horsepower (hp):	1,600		1,600		1,600		4,700	
	Annual Aggregate Heat Input (MMBtu/yr):	140,945		140,945		140,945		309,161	
	Hourly Aggregate Heat Input (MMBtu/hr):	16.09		16.09		16.09		35.29	
Pollutant	Emission Factor lb/MMBtu	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
1,3-Butadiene	4.30E-07	6.92E-06	3.03E-05	6.92E-06	3.03E-05	6.92E-06	3.03E-05	1.52E-05	6.65E-05
Acetaldehyde	4.00E-05	6.44E-04	2.82E-03	6.44E-04	2.82E-03	6.44E-04	2.82E-03	1.41E-03	6.18E-03
Acrolein	6.40E-06	1.03E-04	4.51E-04	1.03E-04	4.51E-04	1.03E-04	4.51E-04	2.26E-04	9.89E-04
Benzene	1.20E-05	1.93E-04	8.46E-04	1.93E-04	8.46E-04	1.93E-04	8.46E-04	4.24E-04	1.85E-03
Ethylbenzene	3.20E-05	5.15E-04	2.26E-03	5.15E-04	2.26E-03	5.15E-04	2.26E-03	1.13E-03	4.95E-03
Formaldehyde	7.10E-04	1.14E-02	5.00E-02	1.14E-02	5.00E-02	1.14E-02	5.00E-02	2.51E-02	1.10E-01
Naphthalene	1.30E-06	2.09E-05	9.16E-05	2.09E-05	9.16E-05	2.09E-05	9.16E-05	4.59E-05	2.01E-04
PAH	2.20E-06	3.54E-05	1.55E-04	3.54E-05	1.55E-04	3.54E-05	1.55E-04	7.76E-05	3.40E-04
Toluene	1.30E-04	2.09E-03	9.16E-03	2.09E-03	9.16E-03	2.09E-03	9.16E-03	4.59E-03	2.01E-02
Xylene	6.40E-05	1.03E-03	4.51E-03	1.03E-03	4.51E-03	1.03E-03	4.51E-03	2.26E-03	9.89E-03
	Total HAPS	**0.02**	**0.07**	**0.02**	**0.07**	**0.02**	**0.07**	**0.04**	**0.15**

1) HAP Emissions based on AP-42, Table 3.1-3
2) Fuel consumption data is from the vendor, see Section 7.

Sample Calculations for Formaldehyde for Unit ID 1

$$\frac{0.00071 \text{ lb}}{\text{MMBtu}} \times \frac{11.51 \text{ MMBtu}}{\text{hr}} = 0.01 \text{ lb/hr}$$

$$\frac{0.0081721 \text{ lb}}{\text{MMBtu}} \times \frac{100828 \text{ MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2000 \text{ lbs}} = 0.04 \text{ tpy}$$

Emergency Generator Engine Emissions
Huerfano Pump Station

Unit No.	12a	
Engine Make/Model	Kohler KG2204	
Control Device	(none)	
Nameplate Horse Power	40 HP	
Fuel Consumption	113.0 cfh	
	0.27 MMBTU/hr	
Annual Operating Hours[1]	500 hours	
NO_x Factor	2.21 lb/MMBTU	
CO Factor	3.72 lb/MMBTU	
NMNEHC (VOC) Factor	0.03 lb/MMBTU	
SO_2 Factor	0.0006 lb/MMBTU	
$PM_{10/2.5}$ Factor	0.0194 lb/MMBTU	(filterable + condensible)
CO_2 Factor	110.00 lb/MMBTU	
Methane	0.23 lb/MMBTU	

Pollutant	lb/hr	TPY
NO_x	0.59	0.15
CO	0.997	0.25
VOC	0.01	0.002
SO2	0.0002	0.00004
$PM_{10/2.5}$	0.01	0.001
CO_2	29.47	7.37
Methane	0.06	0.02

	Factor	Emissions	
HAP	lb/MMBTU	lb/hr	TPY
Benzene	1.58E-03	0.0004	0.0001
Toluene	5.58E-04	0.0001	0.00004
Xylene	1.95E-04	0.0001	0.00001
Acrolein	2.63E-03	0.0007	0.0002
Formaldehyde	2.05E-02	0.0055	0.0014
Acetyaldehyde	2.79E-03	0.0007	0.0002

Notes:
1. Annual Emissions are based on 500 hours per year of operation.
2. Emissions factors based on NSPS JJJJ (HC+NO_x = 13.4 g/KW-hr) and AP-42 Tables 3.2-3.

Dehydrator Emissions (IDs 7a)
Huerfano Pump Station

Emissions calculated using GRI-GLYCalc Version 4.0 (see copy in Section 7)

	7a
Manufacturer	Pesco
Glycol Circulation Rate, gpm	0.3
Gas injection volume pump ratio,	0.13
Glycol Type (TEG)?	TEG
Wet gas flow rate, MMscf/day	2.000
Wet gas water content, lb H2O/MMscf	Saturated
Dry gas water content, lb H2O/MMscf	7.00
Wet gas temperature, F	60
Wet gas pressure, psig	200
Lean glycol water content, %	1.5
Is Flash Tank used?	No
Is stripping gas used?	No
Are still vent controls used?	No

Pollutant	7a	
	lb/hr	tpy
Methane	1.3607	5.9599
Ethane	0.3412	1.4945
Propane	0.2558	1.1204
i-butane	0.0659	0.2886
n-butane	0.1194	0.5230
Isopentane	0.0705	0.3088
n-Pentane	0.0623	0.2729
n-hexane	0.0392	0.1717
Cyclohexane	0.0000	0.0000
Other Hexanes	0.1130	0.4949
Heptanes	0.0508	0.2225
2,2,4 Trimethylpentane	0.0039	0.0171
Benzene	0.0739	0.3237
Toluene	0.1527	0.6688
Ethylbenzene	0.0178	0.0780
Xylenes	0.1801	0.7888
C8+ Heavies	0.2658	1.1642
Total VOC	**1.47**	**6.44**
Total HAP	**0.46**	**2.03**

Reboiler Emissions (ID 7b)
Huerfano Pump Station

Source No.	**7b**	
Reboiler Type	Pesco	
MMBtu/hr	0.13	MMBtu/hr
Lower Heating Value	939.00	Btu/scf
Annual Operating Hours	8,760.00	hours
NOx Factor	0.49	lb/day
CO Factor	0.78	lb/day
VOC Factor	5.50	lb/MMscf
PM10 Factor	7.60	lb/MMscf
SO2 Factor	2.25	lb/MMscf
CO2 Factor	*53.02*	*kg/MMBtu*
N2O Factor	*0.0001*	*kg/MMBtu*
CH4 Factor	*0.001*	*kg/MMBtu*

Source No	**7b**	
Pollutant	**lb/hr**	**tpy**
NOx	0.02	0.09
CO	0.03	0.14
VOC	0.001	0.003
PM10	0.001	0.004
SO2	0.000	0.00
CO2	*14.61*	*64.00*
N2O	*0.00003*	*0.0001*
CH4	*0.0003*	*0.001*

HAP Emissions

	Factor	**7b**	
Pollutant	**(lb/MMscf)**	**lb/hr**	**tpy**
Formaldehyde	7.50E-02	9.98E-06	4.37E-05
Hexane	1.80E+00	2.40E-04	1.05E-03
Benzene	2.10E-03	2.80E-07	1.22E-06
Toluene	3.40E-03	4.53E-07	1.98E-06
	Total HAPs	**2.50E-04**	**1.10E-03**

Notes:

1) Emission factors from AP-42, Section 1.4, Natural Gas Combustion, dated 7/98

2) The SO2 factor is from AP-42, but has been adjusted based on a pipeline specification sulfur content of 0.75 gr/100scf

3) Emission Factor for CO2 is from 40 CFR 98, Table C-1 - Default CO2 Emissions Factors

4) Emission Factor for N2O and CH4 are from 40 CFR 98, Table C-2, Default CH4 and N2O Emission Factors for Various Types of Fuel

Flare Emissions from Maintenance Blowdowns
Huerfano Pump Station

Natural Gas Liquids (NGL) Vented to Flare

Change out Seal Flush Filters[3]:	4	No. of turbines
(changed weekly)	8	gal/wk at 2 gal per change
NGL Released Annually:	416	gal/yr
Change out Pump Seals[4]:	4	No. of pumps(1 pump per turbine)
(change out annually)	840	gal/yr at 5 bbls per change
Other Maintenance Events:	10294	gal/yr
Total NGL Released Annually:	11550	gal/yr

NO_x Emission Rate ton/yr = (HC MMBtu/gal)(FR gal/yr)(EF lb/MMBtu)(ton/2000 lbs)(SF)= 0.16 ton/yr

HC[2] -	Heat Content of NGL=	0.1	MMBtu/gal
FR -	NGL Flowrate=	11550	gal/yr
EF[1] -	NOx Emission Factor=	0.138	lb/MMBtu
SF -	Safety Factor=	2	

CO Emission Rate ton/yr = (HC MMBtu/gal)(FR gal/yr)(EF lb/MMBtu)(ton/2000 lbs)(SF)= 0.32 ton/yr

HC[2] -	Heat Content of NGL=	0.1	MMBtu/gal
FR -	NGL Flowrate=	11550	gal/yr
EF[1] -	CO Emission Factor=	0.2755	lb/MMBtu
SF -	Safety Factor=	2	

VOC Emission Rate ton/yr = (FR gal/yr)(D lb/gal)(1-ER)(ton/2000 lbs)= 0.46 ton/yr

FR -	NGL Flowrate=	11550	gal/yr
D -	Density of VOC component of NGL=	4.00	lb/gal
ER -	VOC Emission Reduction from flare=	0.98	

CO2	**135.01 ton/yr**
N2O	**0.0003 ton/yr**
CH4	**0.0026 ton/yr**

Notes:

[1] Emission factors from the Texas Natural Resource Conservation Commission (TNRCC) Oct 2000 (draft) document "Air Permit Technical Guidance for Chemical Sources: Flares and Vapor Oxidizers)

[2] Heat Content (HC) of NGL taken from Flare Calcs from San Ysidro Pump Station.

[3] As per Darrin Hayhurst, 2/21/06, seal flush filters are changed oncer per week for each turbine pump.

[4] As per Darrin Hayhurst, 2/21/06, pump seals are changed 1 time per year for each turbine pump. Approximately 5 barrels of NGL are released when seals are changed.

Storage Tank Emissions (IDs T-1 & T-2)
Huerfano Pump Station

ID	Description	Tank Capacity (Gallons)	No. of Turnovers per year	VOC Short-Term Emission Rates			VOC Annual Emissions	
				TANKS 4.0 L_w[(1)] (lbs/month)	TANKS 4.0 Turnover Factor	(lbs/hr)	TANKS 4.0 Total Losses[(2)] (lbs/yr)	Total (tpy)
T-1	Waste Water	1,500	24	0.0416	1.00	**0.02**	0.70	**0.0004**
T-2	Methanol	100	6	0.0933	1.00	**0.19**	16.91	**0.008**
					Total lb/hr	**0.21**	***Total tpy***	**0.01**

(1) Short term, lb/hr, emissions are based on a maximum of one tank fill per hour, Lmax = highest working loss, lb/month x 12 months / # turnovers
(1) & (2) See TANKS report in Section 7 for emission estimates.
(3) Tank shell colors from the TANKS 4.0.9d program that were most similar to actual tank shell colors were used in accordance with EPA guidance.
(4) Only the VOC portion of Produced Water is reported (water emissions are not reported).
(5) HAP emissions are not estimated for the storage tanks because they are not a significant emission source.

Equipment Leak Fugitives, ID: F-1
Huerfano Pump Station

Component Type	Service	Oil & Gas Production Operations Fugitive Emission Factors[1], lb/hr/component	Component Count	Total Loss (lb/hr)
Valves	Gas/Vapor	0.00992	0	0.00
	Light Liquid	0.0055	560	3.08
	Heavy Liquid	0.00002	0	0.00
Pumps	Gas Vapor	0.00529	0	0.00
	Light Liquid	0.02866	5	0.14
	Heavy Liquid	0.00113	0	0.00
Flanges	Gas/Vapor	0.00086	0	0.00
	Light Liquid	0.000243	0	0.00
	Heavy Liquid	0.00000086	0	0.00
Compressors	Gas/Vapor	0.0194	0	0.00
	Light Liquid	0.0165	0	0.00
	Heavy Liquid	0.0000683	0	0.00
Relief Valves	Gas/Vapor	0.0194	0	0.00
	Light Liquid	0.0165	10	0.17
	Heavy Liquid	0.0000683	0	0.00
Open Ended Lines	Gas/Vapor	0.00441	0	0.00
	Light Liquid	0.00309	180	0.56
	Heavy Liquid	0.000309	0	0.00
Connectors	Gas/Vapor	0.00044	0	0.00
	Light Liquid	0.000463	665	0.31
	Heavy Liquid	0.0000165	0	0.00
Process Drains	Gas/Vapor	0.0194	0	0.00
	Light Liquid	0.0165	0	0.00
	Heavy Liquid	0.0000683	0	0.00
Component Emission Total Losses (lb/hr):				4.25
Gas/Vapor Emissions (lb/hr):				0.00
Light Liquid Emissions (lb/hr):				4.25
Heavy Liquid Emissions (lb/hr):				0.00

Sample Calculations:
Emissions (lb/hr) = Emission Factor (lb/hr/component) x Component Count
Emissions (tons/yr) = Emissions (lb/hr) x 8,760 hrs/yr / 2,000 lb/ton

Speciated Emissions Based on Liquid Analysis Data[2]

Compound	Weight %	lb/hr	tons/year
n-Hexane	6.46	0.27	1.20
Benzene	1.05	0.04	0.20
Toluene	3.20	0.14	0.60
Ethylbenzene	0.22	0.009	0.04
Xylene	0.40	0.02	0.07
non-HAP[5]	88.67	3.77	16.52
Total:	100.00		
VOC Total:	100.00%	4.25	18.63
HAPs Total:	11.33%	0.48	2.11

(1) Emission factors are from EPA's "Protocol for Equipment Leak Emission Estimates" EPA-453/R-95-017, 11/1995, Table 2-4.
(2) See attached analysis in Section 7.

Startup, Shutdown, & Maintenance (SSM) Emissions, ID SSM
Emissions from Scheduled/Routine & Predictable Events
Huerfano Pump Station

Event Description	Volume Per Event (MCF)	Events per hour	Events per year	Hourly Volume (MCF)	Annual Volume (MMCF)	Material Vented	Standard scf/lbmol	Total lbmol/hr	Total lbmol/yr
Startup	7.70	1	50	7.70	0.39	Nat. Gas	379.482	20.29	1,014.54

Speciated Emissions Based on Inlet Gas Analysis[(1)]

Compound	Dry Basis Mole %	MW	lb/lb-mol	lb/hr	tons/yr
CO2	0.9805	44.01	0.4315	8.76	0.22
N2	0.4712	28.01	0.1320	2.68	0.07
Methane	83.0766	16.04	13.3280	270.44	6.76
Ethane	8.7465	30.07	2.6301	53.37	1.33
Propane	3.9710	44.10	1.7511	35.53	0.89
i-Butane	0.6798	58.12	0.3951	8.02	0.20
n-Butane	1.0374	58.12	0.6030	12.23	0.31
i-Pentane	0.3546	72.15	0.2558	5.19	0.13
n-Pentane	0.2588	72.15	0.1867	3.79	0.09
n-Hexane	0.0798	86.18	0.0688	1.40	0.03
Other Hexanes	0.2728	86.18	0.2351	4.77	0.12
C7	0.0346	86.18	0.0298	0.61	0.02
Benzene	0.0051	78.11	0.0040	0.08	0.00
Toluene	0.0034	92.14	0.0031	0.06	0.00
Ethylbenzene	0.0002	106.17	0.0002	0.00	0.00
Xylenes	0.0017	106.17	0.0018	0.04	0.00
C8	0.0213	86.12	0.0183	0.37	0.01
Total:	**100.00**				
			VOC Total:	**72.09**	**1.80**
			HAP Total:	**1.58**	**0.04**

(1) See attached gas analysis in Section 7.

Section 7

Information Used To Determine Emissions

Information Used to Determine Emissions shall include the following:

- ☑ If manufacturer data are used, include specifications for emissions units and control equipment, including control efficiencies specifications and sufficient engineering data for verification of control equipment operation, including design drawings, test reports, and design parameters that affect normal operation.
- ☐ If test data are used, include a copy of the complete test report. If the test data are for an emissions unit other than the one being permitted, the emission units must be identical. Test data may not be used if any difference in operating conditions of the unit being permitted and the unit represented in the test report significantly effect emission rates.
- ☑ If the most current copy of AP-42 is used, reference the section and date located at the bottom of the page. Include a copy of the page containing the emissions factors, and clearly mark the factors used in the calculations.
- ☐ If an older version of AP-42 is used, include a complete copy of the section.
- ☑ If an EPA document or other material is referenced, include a complete copy.
- ☑ Fuel specifications sheet.
- ☑ If computer models are used to estimate emissions, include an input summary (if available) and a detailed report, and a disk containing the input file(s) used to run the model. For tank-flashing emissions, include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., permit or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis.

The following information was used to determine emissions from equipment at the Huerfano Pump Station:

- Turbine manufacturer data;
- Copies of applicable sections of AP-42;
- Emission factors for fugitive emission calculations: Table 2-4; Protocol for Equipment Leak Emission estimates, EPA-453/R-95-017, November 1995;
- Gas analysis used for fugitive emissions;
- TANKS4.09d Output reports;
- GRI GLYCalc Version 4.0 reports.

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Solar Turbines

A Caterpillar Company

PREDICTED EMISSION PERFORMANCE

Customer: Enterprise	Engine Model: SATURN 20-1600 CS/MD 80F MATCH
Job ID: 6317	
Inquiry Number:	Fuel Type: SD NATURAL GAS / Water Injection: NO
Run By: Helen Zhang / Date Run: 24-Jan-06	Engine Emissions Data: REV. 1.1 / Engines Tested: 4

		NOx EMISSIONS Nominal	NOx EMISSIONS Maximum	CO EMISSIONS Nominal	CO EMISSIONS Maximum	UHC EMISSIONS Nominal	UHC EMISSIONS Maximum
1	1504 Hp 100.0% Load / Elev. 3000 ft / Rel. Humidity 60.0% / Temperature 0 Deg. F						
	PPMvd at 15% O2	70.36	100.00	85.03	200.00	4.69	25.00
	ton/yr	19.86	28.22	14.61	34.37	0.46	2.46
	lbm/MMBtu (Fuel LHV)	0.282	0.400	0.207	0.488	0.007	0.035
	lbm/(MW-hr)	4.04	5.75	2.98	7.00	0.09	0.50
	(gas turbine shaft pwr) lbm/hr	4.53	6.44	3.34	7.85	0.11	0.56
2	1458 Hp 100.0% Load / Elev. 3000 ft / Rel. Humidity 60.0% / Temperature 20.0 Deg. F						
	PPMvd at 15% O2	73.87	100.00	65.68	200.00	4.69	25.00
	ton/yr	20.22	27.38	10.93	33.33	0.45	2.39
	lbm/MMBtu (Fuel LHV)	0.296	0.400	0.160	0.487	0.007	0.035
	lbm/(MW-hr)	4.25	5.75	2.30	7.00	0.09	0.50
	(gas turbine shaft pwr) lbm/hr	4.62	6.25	2.50	7.61	0.10	0.54
3	1408 Hp 100.0% Load / Elev. 3000 ft / Rel. Humidity 60.0% / Temperature 40.0 Deg. F						
	PPMvd at 15% O2	75.89	100.00	46.30	200.00	4.71	25.00
	ton/yr	20.06	26.44	7.45	32.19	0.43	2.30
	lbm/MMBtu (Fuel LHV)	0.303	0.399	0.113	0.486	0.007	0.035
	lbm/(MW-hr)	4.37	5.76	1.62	7.01	0.09	0.50
	(gas turbine shaft pwr) lbm/hr	4.58	6.04	1.70	7.35	0.10	0.53

Important Notes

1. For short-term emission limits such as lbs/hr., Solar recommends using "worst case" anticipated operating conditions specific to the application and the site conditions. Worst case for one pollutant is not necessarily the same for another. The emission values on this form are only predicted emissions at the specific operating conditions listed.
2. Solar's typical SoLoNOx warranty is for greater than 0 deg F, and between 50% and 100% load for gas fuel, and between 80% and 100% load for liquid fuel. An emission warranty for non-SoLoNOx equipment is for greater than 0 deg F and between 80% and 100% load.
3. Fuel must meet Solar standard fuel specification ES 9-98. Predicted emissions are based on the attached fuel composition, or, San Diego natural gas or equivalent.
4. If needed, Solar can provide generic documents to address turbine operation outside typical warranty ranges, as well as non-warranted emissions of SO2, PM10/2.5, VOC, and formaldehyde.
5. Solar can optionally provide factory testing in San Diego to ensure the actual unit(s) meet the above values within the tolerances quoted. Pricing and schedule impact will be provided upon request.

Solar Turbines

A Caterpillar Company

PREDICTED EMISSION PERFORMANCE

Customer: Enterprise	Engine Model: SATURN 20-1600 CS/MD 80F MATCH
Job ID: 6317	
Inquiry Number:	Fuel Type: 3D NATURAL GAS / Water Injection: NO
Run By: Helen Zhang / Date Run: 24-Jan-06	Engine Emissions Data: REV. 1.1 / Engines Tested: 4

	NOx EMISSIONS Nominal	NOx EMISSIONS Maximum	CO EMISSIONS Nominal	CO EMISSIONS Maximum	UHC EMISSIONS Nominal	UHC EMISSIONS Maximum
4 — 1346 Hp, 100.0% Load, Elev. 3000 ft, Rel. Humidity 60.0%, Temperature 60.0 Deg. F						
PPMvd at 15% O2	75.09	100.00	27.85	50.00	4.73	25.00
ton/yr	19.08	25.41	4.31	7.74	0.42	2.22
lbm/MMBtu (Fuel LHV)	0.299	0.398	0.067	0.121	0.007	0.035
lbm/(MW-hr)	4.34	5.78	0.98	1.76	0.10	0.50
(gas turbine shaft pwr) lbm/hr	4.36	5.80	0.98	1.77	0.10	0.51
5 — 1268 Hp, 100.0% Load, Elev. 3000 ft, Rel. Humidity 60.0%, Temperature 60.0 Deg. F						
PPMvd at 15% O2	69.58	100.00	28.07	50.00	4.77	25.00
ton/yr	16.83	24.19	4.13	7.36	0.40	2.11
lbm/MMBtu (Fuel LHV)	0.275	0.395	0.067	0.120	0.007	0.034
lbm/(MW-hr)	4.06	5.84	1.00	1.78	0.10	0.51
(gas turbine shaft pwr) lbm/hr	3.84	5.52	0.94	1.68	0.09	0.48
6 — 1163 Hp, 100.0% Load, Elev. 3000 ft, Rel. Humidity 60.0%, Temperature 109.8 Deg. F						
PPMvd at 15% O2	57.61	100.00	28.52	50.00	4.84	25.00
ton/yr	13.04	22.63	3.93	6.89	0.38	1.97
lbm/MMBtu (Fuel LHV)	0.225	0.390	0.068	0.119	0.007	0.034
lbm/(MW-hr)	3.43	5.96	1.03	1.81	0.10	0.52
(gas turbine shaft pwr) lbm/hr	2.98	5.17	0.90	1.57	0.09	0.45

Important Notes

1. For short-term emission limits such as lbs/hr., Solar recommends using "worst case" anticipated operating conditions specific to the application and the site conditions. Worst case for one pollutant is not necessarily the same for another. The emission values on this form are only predicted emissions at the specific operating conditions listed.
2. Solar's typical SoLoNOx warranty is for greater than 0 deg F, and between 50% and 100% load for gas fuel, and between 80% and 100% load for liquid fuel. An emission warranty for non-SoLoNOx equipment is for greater than 0 deg F and between 80% and 100% load.
3. Fuel must meet Solar standard fuel specification ES 9-98. Predicted emissions are based on the attached fuel composition, or, San Diego natural gas or equivalent.
4. If needed, Solar can provide generic documents to address turbine operation outside typical warranty ranges, as well as non-warranted emissions of SO2, PM10/2.5, VOC, and formaldehyde.
5. Solar can optionally provide factory testing in San Diego to ensure the actual unit(s) meet the above values within the tolerances quoted. Pricing and schedule impact will be provided upon request.

Solar Turbines

A Caterpillar Company

PREDICTED ENGINE PERFORMANCE

Customer: Enterprise	Model: SATURN 20-1600
Job ID: 6317	Package Type: CS/MD
Run By: Helen Zhang	Date Run: 24-Jan-06
Engine Performance Code: REV. 3.40	Engine Performance Data: REV. 0.2
	Match: 80F MATCH
	Fuel System: GAS
	Fuel Type: SD NATURAL GAS

DATA FOR MINIMUM PERFORMANCE

Elevation	feet	3000
Inlet Loss	In H20	4.0
Exhaust Loss	In H20	2.0

		1	2	3	4	5	6
Engine Inlet Temperature	deg F	0	20.0	40.0	60.0	80.0	100.0
Relative Humidity	%	60.0	60.0	60.0	60.0	60.0	60.0
Driven Equipment Speed	RPM	22300	22300	22300	22300	22300	22300
Specified Load	HP	FULL	FULL	FULL	FULL	FULL	FULL
Net Output Power	HP	1504	1458	1405	1346	1268	1163
Fuel Flow	mmBtu/hr	16.09	15.62	15.12	14.59	13.99	13.26
Heat Rate	Btu/HP-hr	10702	10717	10756	10838	11032	11402
Therm Eff	%	23.774	23.743	23.656	23.476	23.065	22.315
Engine Exhaust Flow	lbm/hr	50337	48855	47316	45650	43785	41566
Exhaust Temperature	deg F	922	939	955	972	988	1004

Fuel Gas Composition (Volume Percent)

Methane (CH4)	92.79
Ethane (C2H6)	4.16
Propane (C3H8)	0.84
N-Butane (C4H10)	0.18
N-Pentane (C5H12)	0.04
Hexane (C6H14)	0.04
Carbon Dioxide (CO2)	0.44
Hydrogen Sulfide (H2S)	0.0001
Nitrogen (N2)	1.51

Fuel Gas Properties

LHV (Btu/Scf)	939.2	Specific Gravity	0.5970	Wobbe Index at 60F	1215.6

Notes: Saturn 1600 non-SoloNox @ 3000 ft

Solar Turbines

A Caterpillar Company

PREDICTED EMISSION PERFORMANCE

Customer: Enterprise	Engine Model: CENTAUR 40-4700S CS/MD 80F MATCH
Job ID: 6318	
Inquiry Number:	Fuel Type: SD NATURAL GAS — Water Injection: NO
Run By: Helen Zhang — Date Run: 24-Jan-06	Engine Emissions Data: REV. 0.1 — Engines Tested: 0

	NOx EMISSIONS Nominal	NOx EMISSIONS Maximum	CO EMISSIONS Nominal	CO EMISSIONS Maximum	UHC EMISSIONS Nominal	UHC EMISSIONS Maximum
1 — 3698 Hp, 100.0% Load, Elev. 6525 ft, Rel. Humidity 60.0%, Temperature 0 Deg. F						
PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
ton/yr	*	15.48	*	18.85	*	5.40
lbm/MMBtu (Fuel LHV)	*	0.100	*	0.122	*	0.035
lbm/(MW-hr)	*	1.28	*	1.56	*	0.45
(gas turbine shaft pwr) lbm/hr	*	3.53	*	4.30	*	1.23
2 — 3593 Hp, 100.0% Load, Elev. 6525 ft, Rel. Humidity 60.0%, Temperature 20.0 Deg. F						
PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
ton/yr	*	14.95	*	18.20	*	5.21
lbm/MMBtu (Fuel LHV)	*	0.100	*	0.122	*	0.035
lbm/(MW-hr)	*	1.27	*	1.55	*	0.44
(gas turbine shaft pwr) lbm/hr	*	3.41	*	4.15	*	1.19
3 — 3462 Hp, 100.0% Load, Elev. 6525 ft, Rel. Humidity 60.0%, Temperature 40.0 Deg. F						
PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
ton/yr	*	14.51	*	17.67	*	5.06
lbm/MMBtu (Fuel LHV)	*	0.100	*	0.122	*	0.035
lbm/(MW-hr)	*	1.28	*	1.56	*	0.45
(gas turbine shaft pwr) lbm/hr	*	3.31	*	4.03	*	1.16

Important Notes

1. For short-term emission limits such as lbs/hr., Solar recommends using "worst case" anticipated operating conditions specific to the application and the site conditions. Worst case for one pollutant is not necessarily the same for another. The emission values on this form are only predicted emissions at the specific operating conditions listed.
2. Solar's typical SoLoNOx warranty is for greater than 0 deg F, and between 50% and 100% load for gas fuel, and between 80% and 100% load for liquid fuel. An emission warranty for non-SoLoNOx equipment is for greater than 0 deg F and between 80% and 100% load.
3. Fuel must meet Solar standard fuel specification ES 9-98. Predicted emissions are based on the attached fuel composition, or, San Diego natural gas or equivalent.
4. If needed, Solar can provide generic documents to address turbine operation outside typical warranty ranges, as well as non-warranted emissions of SO2, PM10/2.5, VOC, and formaldehyde.
5. Solar can optionally provide factory testing in San Diego to ensure the actual unit(s) meet the above values within the tolerances quoted. Pricing and schedule impact will be provided upon request.

Solar Turbines

A Caterpillar Company

PREDICTED EMISSION PERFORMANCE

Customer: Enterprise	Engine Model: CENTAUR 40-4700S CS/MD 80F MATCH
Job ID: 6318	
Inquiry Number:	Fuel Type: 3D NATURAL GAS; Water Injection: NO
Run By: Helen Zhang; Date Run: 24-Jan-06	Engine Emissions Data: REV. 0.1; Engines Tested: 0

		NOx EMISSIONS Nominal	NOx EMISSIONS Maximum	CO EMISSIONS Nominal	CO EMISSIONS Maximum	UHC EMISSIONS Nominal	UHC EMISSIONS Maximum
4	3322 Hp 100.0% Load; Elev. 6525 ft; Rel. Humidity 60.0%; Temperature 60.0 Deg. F						
	PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
	ton/yr	*	14.02	*	17.07	*	4.89
	lbm/MMBtu (Fuel LHV)	*	0.099	*	0.121	*	0.035
	lbm/(MW-hr)	*	1.29	*	1.57	*	0.45
	(gas turbine shaft pwr) lbm/hr	*	3.20	*	3.90	*	1.12
5	3132 Hp 100.0% Load; Elev. 6525 ft; Rel. Humidity 60.0%; Temperature 60.0 Deg. F						
	PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
	ton/yr	*	13.32	*	16.22	*	4.64
	lbm/MMBtu (Fuel LHV)	*	0.099	*	0.120	*	0.034
	lbm/(MW-hr)	*	1.30	*	1.59	*	0.45
	(gas turbine shaft pwr) lbm/hr	*	3.04	*	3.70	*	1.06
6	2780 Hp 100.0% Load; Elev. 6525 ft; Rel. Humidity 60.0%; Temperature 100.0 Deg. F						
	PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
	ton/yr	*	12.14	*	14.78	*	4.23
	lbm/MMBtu (Fuel LHV)	*	0.097	*	0.118	*	0.034
	lbm/(MW-hr)	*	1.34	*	1.63	*	0.47
	(gas turbine shaft pwr) lbm/hr	*	2.77	*	3.37	*	0.97

Important Notes

1. For short-term emission limits such as lbs/hr., Solar recommends using "worst case" anticipated operating conditions specific to the application and the site conditions. Worst case for one pollutant is not necessarily the same for another. The emission values on this form are only predicted emissions at the specific operating conditions listed.
2. Solar's typical SoLoNOx warranty is for greater than 0 deg F, and between 50% and 100% load for gas fuel, and between 80% and 100% load for liquid fuel. An emission warranty for non-SoLoNOx equipment is for greater than 0 deg F and between 80% and 100% load.
3. Fuel must meet Solar standard fuel specification ES 9-98. Predicted emissions are based on the attached fuel composition, or, San Diego natural gas or equivalent.
4. If needed, Solar can provide generic documents to address turbine operation outside typical warranty ranges, as well as non-warranted emissions of SO2, PM10/2.5, VOC, and formaldehyde.
5. Solar can optionally provide factory testing in San Diego to ensure the actual unit(s) meet the above values within the tolerances quoted. Pricing and schedule impact will be provided upon request.

Solar Turbines

A Caterpillar Company

PREDICTED ENGINE PERFORMANCE

Customer: Enterprise	Model: CENTAUR 40-4700S
Job ID: 6318	Package Type: CS/MD
Run By: Helen Zhang	Date Run: 24-Jan-06
Engine Performance Code: REV. 3.40	Engine Performance Data: REV. 2.2
	Match: 80F MATCH
	Fuel System: GAS
	Fuel Type: SD NATURAL GAS

DATA FOR MINIMUM PERFORMANCE

Elevation	feet	6525
Inlet Loss	in H20	4.0
Exhaust Loss	in H20	2.0
Accessory on GP Shaft	HP	14.0

		1	2	3	4	5	6
Engine Inlet Temperature	deg F	0	20.0	40.0	60.0	80.0	100.0
Relative Humidity	%	60.0	60.0	60.0	60.0	60.0	60.0
Driven Equipment Speed	RPM	15500	15500	15500	15500	15500	15255
Specified Load	HP	FULL	FULL	FULL	FULL	FULL	FULL
Net Output Power	HP	3696	3593	3462	3322	3132	2780
Fuel Flow	mmBtu/hr	35.29	34.10	33.18	32.19	30.84	28.53
Heat Rate	Btu/HP-hr	9548	9490	9584	9691	9846	10261
Therm Eff	%	26.648	26.811	26.548	26.257	25.841	24.796
Engine Exhaust Flow	lbm/hr	129398	125459	121085	116597	110940	103242
Exhaust Temperature	deg F	753	772	799	826	851	870

Fuel Gas Composition (Volume Percent)

Methane (CH4)	92.79
Ethane (C2H6)	4.16
Propane (C3H8)	0.84
N-Butane (C4H10)	0.18
N-Pentane (C5H12)	0.04
Hexane (C6H14)	0.04
Carbon Dioxide (CO2)	0.44
Hydrogen Sulfide (H2S)	0.0001
Nitrogen (N2)	1.51

Fuel Gas Properties

LHV (Btu/Scf)	939.2	Specific Gravity	0.5970	Wobbe Index at 60F	1215.6

Notes: Huerfano Centaur SoloNox

Table 3.1-3. EMISSION FACTORS FOR HAZARDOUS AIR POLLUTANTS FROM NATURAL GAS-FIRED STATIONARY GAS TURBINES[a]

Emission Factors[b] - Uncontrolled		
Pollutant	Emission Factor (lb/MMBtu)[c]	Emission Factor Rating
1,3-Butadiene[d]	< 4.3 E-07	D
Acetaldehyde	4.0 E-05	C
Acrolein	6.4 E-06	C
Benzene[e]	1.2 E-05	A
Ethylbenzene	3.2 E-05	C
Formaldehyde[f]	7.1 E-04	A
Naphthalene	1.3 E-06	C
PAH	2.2 E-06	C
Propylene Oxide[d]	< 2.9 E-05	D
Toluene	1.3 E-04	C
Xylenes	6.4 E-05	C

[a] SCC for natural gas-fired turbines include 2-01-002-01, 2-02-002-01, 2-02-002-03, 2-03-002-02, and 2-03-002-03. Hazardous Air Pollutants as defined in Section 112 (b) of the *Clean Air Act*.

[b] Factors are derived from units operating at high loads (≥ 80 percent load) only. For information on units operating at other loads, consult the background report for this chapter (Reference 16), available at "www.epa.gov/ttn/chief".

[c] Emission factors based on an average natural gas heating value (HHV) of 1020 Btu/scf at 60°F. To convert from (lb/MMBtu) to (lb/10^6 scf), multiply by 1020. These emission factors can be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this heating value.

[d] Compound was not detected. The presented emission value is based on one-half of the detection limit.

[e] Benzene with SCONOX catalyst is 9.1 E-07, rating of D.

[f] Formaldehyde with SCONOX catalyst is 2.0 E-05, rating of D.

Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO_x) AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION[a]

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO_x[b]		CO	
	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS)[c]	280	A	84	B
Uncontrolled (Post-NSPS)[c]	190	A	84	B
Controlled - Low NO_x burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO_x burners	50	D	84	B
Controlled - Low NO_x burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from $1b/10^6$ scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

[b] Expressed as NO_2. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO_X emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO_X emission factor.

[c] NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984.

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION[a]

Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
CO_2[b]	120,000	A
Lead	0.0005	D
N_2O (Uncontrolled)	2.2	E
N_2O (Controlled-low-NO_X burner)	0.64	E
PM (Total)[c]	7.6	D
PM (Condensable)[c]	5.7	D
PM (Filterable)[c]	1.9	B
SO_2[d]	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. To convert from $lb/10^6$ scf to 1b/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.

[b] Based on approximately 100% conversion of fuel carbon to CO_2. $CO_2[lb/10^6 \text{ scf}] = (3.67)(CON)(C)(D)$, where CON = fractional conversion of fuel carbon to CO_2, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2×10^4 $lb/10^6$ scf.

[c] All PM (total, condensible, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM_{10}, $PM_{2.5}$ or PM_1 emissions. Total PM is the sum of the filterable PM and condensible PM. Condensible PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

[d] Based on 100% conversion of fuel sulfur to SO_2. Assumes sulfur content is natural gas of 2,000 grains/10^6 scf. The SO_2 emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO_2 emission factor by the ratio of the site-specific sulfur content (grains/10^6 scf) to 2,000 grains/10^6 scf.

TABLE 1.4-3. EMISSION FACTORS FOR SPECIATED ORGANIC COMPOUNDS FROM NATURAL GAS COMBUSTION[a]

CAS No.	Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
91-57-6	2-Methylnaphthalene[b, c]	2.4E-05	D
56-49-5	3-Methylchloranthrene[b, c]	<1.8E-06	E
	7,12-Dimethylbenz(a)anthracene[b,c]	<1.6E-05	E
83-32-9	Acenaphthene[b,c]	<1.8E-06	E
203-96-8	Acenaphthylene[b,c]	<1.8E-06	E
120-12-7	Anthracene[b,c]	<2.4E-06	E
56-55-3	Benz(a)anthracene[b,c]	<1.8E-06	E
71-43-2	Benzene[b]	2.1E-03	B
50-32-8	Benzo(a)pyrene[b,c]	<1.2E-06	E
205-99-2	Benzo(b)fluoranthene[b,c]	<1.8E-06	E
191-24-2	Benzo(g,h,i)perylene[b,c]	<1.2E-06	E
205-82-3	Benzo(k)fluoranthene[b,c]	<1.8E-06	E
106-97-8	Butane	2.1E+00	E
218-01-9	Chrysene[b,c]	<1.8E-06	E
53-70-3	Dibenzo(a,h)anthracene[b,c]	<1.2E-06	E
25321-22-6	Dichlorobenzene[b]	1.2E-03	E
74-84-0	Ethane	3.1E+00	E
206-44-0	Fluoranthene[b,c]	3.0E-06	E
86-73-7	Fluorene[b,c]	2.8E-06	E
50-00-0	Formaldehyde[b]	7.5E-02	B
110-54-3	Hexane[b]	1.8E+00	E
193-39-5	Indeno(1,2,3-cd)pyrene[b,c]	<1.8E-06	E
91-20-3	Naphthalene[b]	6.1E-04	E
109-66-0	Pentane	2.6E+00	E
85-01-8	Phenanathrene[b,c]	1.7E-05	D

TABLE 1.4-3. EMISSION FACTORS FOR SPECIATED ORGANIC COMPOUNDS FROM NATURAL GAS COMBUSTION (Continued)

CAS No.	Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
74-98-6	Propane	1.6E+00	E
129-00-0	Pyrene[b, c]	5.0E-06	E
108-88-3	Toluene[b]	3.4E-03	C

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. To convert from $1b/10^6$ scf to lb/MMBtu, divide by 1,020. Emission Factors preceeded with a less-than symbol are based on method detection limits.

[b] Hazardous Air Pollutant (HAP) as defined by Section 112(b) of the Clean Air Act.

[c] HAP because it is Polycyclic Organic Matter (POM). POM is a HAP as defined by Section 112(b) of the Clean Air Act.

[d] The sum of individual organic compounds may exceed the VOC and TOC emission factors due to differences in test methods and the availability of test data for each pollutant.

Title 40: Protection of Environment
PART 98—MANDATORY GREENHOUSE GAS REPORTING
Subpart C—General Stationary Fuel Combustion Sources

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Table C–1 to Subpart C of Part 98—Default CO_2 Emission Factors and High Heat Values for Various Types of Fuel

Fuel type	Default high heat value	Default CO_2 emission factor
Coal and coke	mmBtu/short ton	kg CO_2/mmBtu
Anthracite	25.09	103.54
Bituminous	24.93	93.40
Subbituminous	17.25	97.02
Lignite	14.21	96.36
Coke	24.80	102.04
Mixed (Commercial sector)	21.39	95.26
Mixed (Industrial coking)	26.28	93.65
Mixed (Industrial sector)	22.35	93.91
Mixed (Electric Power sector)	19.73	94.38
Natural gas	mmBtu/scf	kg CO_2/mmBtu
(Weighted U.S. Average)	1.028×10^{-3}	53.02
Petroleum products	mmBtu/gallon	kg CO_2/mmBtu
Distillate Fuel Oil No. 1	0.139	73.25
Distillate Fuel Oil No. 2	0.138	73.96
Distillate Fuel Oil No. 4	0.146	75.04
Residual Fuel Oil No. 5	0.140	72.93
Residual Fuel Oil No. 6	0.150	75.10
Used Oil	0.135	74.00
Kerosene	0.135	75.20
Liquefied petroleum gases (LPG)	0.092	62.98
Propane	0.091	61.46
Propylene	0.091	65.95
Ethane	0.069	62.64
Ethanol	0.084	68.44

Title 40: Protection of Environment

PART 98—MANDATORY GREENHOUSE GAS REPORTING
Subpart C—General Stationary Fuel Combustion Sources

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Table C–2 to Subpart C of Part 98—Default CH_4 and N_2O Emission Factors for Various Types of Fuel

Fuel type	Default CH_4 emission factor (kg CH_4/mmBtu)	Default N_2O emission factor (kg N_2O/mmBtu)
Coal and Coke (All fuel types in Table C–1)	1.1×10^{-02}	1.6×10^{-03}
Natural Gas	1.0×10^{-03}	1.0×10^{-04}
Petroleum (All fuel types in Table C–1)	3.0×10^{-03}	6.0×10^{-04}
Municipal Solid Waste	3.2×10^{-02}	4.2×10^{-03}
Tires	3.2×10^{-02}	4.2×10^{-03}
Blast Furnace Gas	2.2×10^{-05}	1.0×10^{-04}
Coke Oven Gas	4.8×10^{-04}	1.0×10^{-04}
Biomass Fuels—Solid (All fuel types in Table C–1)	3.2×10^{-02}	4.2×10^{-03}
Biogas	3.2×10^{-03}	6.3×10^{-04}
Biomass Fuels—Liquid (All fuel types in Table C–1)	1.1×10^{-03}	1.1×10^{-04}

Note: Those employing this table are assumed to fall under the IPCC definitions of the “Energy Industry” or “Manufacturing Industries and Construction”. In all fuels except for coal the values for these two categories are identical. For coal combustion, those who fall within the IPCC “Energy Industry” category may employ a value of 1g of CH_4/mmBtu.

[75 FR 79154, Dec. 17, 2010]

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Table 3.2-3. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE RICH-BURN ENGINES[a]
(SCC 2-02-002-53)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Criteria Pollutants and Greenhouse Gases		
NO_x[c] 90 - 105% Load	2.21 E+00	A
NO_x[c] <90% Load	2.27 E+00	C
CO[c] 90 - 105% Load	3.72 E+00	A
CO[c] <90% Load	3.51 E+00	C
CO_2[d]	1.10 E+02	A
SO_2[e]	5.88 E-04	A
TOC[f]	3.58 E-01	C
Methane[g]	2.30 E-01	C
VOC[h]	2.96 E-02	C
PM10 (filterable)[i,j]	9.50 E-03	E
PM2.5 (filterable)[j]	9.50 E-03	E
PM Condensable[k]	9.91 E-03	E
Trace Organic Compounds		
1,1,2,2-Tetrachloroethane[l]	2.53 E-05	C
1,1,2-Trichloroethane[l]	<1.53 E-05	E
1,1-Dichloroethane	<1.13 E-05	E
1,2-Dichloroethane	<1.13 E-05	E
1,2-Dichloropropane	<1.30 E-05	E
1,3-Butadiene[l]	6.63 E-04	D
1,3-Dichloropropene[l]	<1.27 E-05	E
Acetaldehyde[l,m]	2.79 E-03	C
Acrolein[l,m]	2.63 E-03	C
Benzene[l]	1.58 E-03	B
Butyr/isobutyraldehyde	4.86 E-05	D
Carbon Tetrachloride[l]	<1.77 E-05	E

Table 3.2-3. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE RICH-BURN ENGINES (Concluded)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Chlorobenzene[l]	<1.29 E-05	E
Chloroform[l]	<1.37 E-05	E
Ethane[n]	7.04 E-02	C
Ethylbenzene[l]	<2.48 E-05	E
Ethylene Dibromide[l]	<2.13 E-05	E
Formaldehyde[l,m]	2.05 E-02	A
Methanol[l]	3.06 E-03	D
Methylene Chloride[l]	4.12 E-05	C
Naphthalene[l]	<9.71 E-05	E
PAH[l]	1.41 E-04	D
Styrene[l]	<1.19 E-05	E
Toluene[l]	5.58 E-04	A
Vinyl Chloride[l]	<7.18 E-06	E
Xylene[l]	1.95 E-04	A

[a] Reference 7. Factors represent uncontrolled levels. For NO_x, CO, and PM-10, "uncontrolled" means no combustion or add-on controls; however, the factor may include turbocharged units. For all other pollutants, "uncontrolled" means no oxidation control; the data set may include units with control techniques used for NOx control, such as PCC and SCR for lean burn engines, and PSC for rich burn engines. Factors are based on large population of engines. Factors are for engines at all loads, except as indicated. SCC = Source Classification Code. TOC = Total Organic Compounds. PM10 = Particulate Matter $\leq$ 10 microns (μm) aerodynamic diameter. A "<" sign in front of a factor means that the corresponding emission factor is based on one-half of the method detection limit.

[b] Emission factors were calculated in units of (lb/MMBtu) based on procedures in EPA Method 19. To convert from (lb/MMBtu) to (lb/10^6 scf), multiply by the heat content of the fuel. If the heat content is not available, use 1020 Btu/scf. To convert from (lb/MMBtu) to (lb/hp-hr) use the following equation:

$$\text{lb/hp-hr} = (\text{lb/MMBtu})(\text{heat input, MMBtu/hr})(\text{1/operating HP, 1/hp})$$

[c] Emission tests with unreported load conditions were not included in the data set.

[d] Based on 99.5% conversion of the fuel carbon to CO_2. CO_2 [lb/MMBtu] = (3.67)(%CON)(C)(D)(1/h), where %CON = percent conversion of fuel carbon to CO_2,

C = carbon content of fuel by weight (0.75), D = density of fuel, 4.1 E+04 lb/10^6 scf, and h = heating value of natural gas (assume 1020 Btu/scf at 60°F).

[e] Based on 100% conversion of fuel sulfur to SO_2. Assumes sulfur content in natural gas of 2,000 gr/10^6 scf.

[f] Emission factor for TOC is based on measured emission levels from 6 source tests.

[g] Emission factor for methane is determined by subtracting the VOC and ethane emission factors from the TOC emission factor.

[h] VOC emission factor is based on the sum of the emission factors for all speciated organic compounds. Methane and ethane emissions were not measured for this engine category.

[i] No data were available for uncontrolled engines. PM10 emissions are for engines equipped with a PCC.

[j] Considered $\leq$ 1 μm in aerodynamic diameter. Therefore, for filterable PM emissions, PM10(filterable) = PM2.5(filterable).

[k] No data were available for condensable emissions. The presented emission factor reflects emissions from 4SLB engines.

[l] Hazardous Air Pollutant as defined by Section 112(b) of the Clean Air Act.

[m] For rich-burn engines, no interference is suspected in quantifying aldehyde emissions. The presented emission factors are based on FTIR and CARB 430 emissions data measurements.

[n] Ethane emission factor is determined by subtracting the VOC emission factor from the NMHC emission factor.

GRI-GLYCalc VERSION 4.0 - SUMMARY OF INPUT VALUES

Case Name: Huerfano
File Name: I:\Projects\Enterprise\New Mexico\Huerfano\SO2 Update\Huerfano GLYCalc.ddf
Date: September 28, 2012

DESCRIPTION:

Description: Unit ID 7a

Annual Hours of Operation: 8760.0 hours/yr

WET GAS:

Temperature: 60.00 deg. F
Pressure: 200.00 psig
Wet Gas Water Content: Saturated

Component	Conc. (vol %)
Carbon Dioxide	0.9805
Nitrogen	0.4712
Methane	83.0766
Ethane	8.7465
Propane	3.9710
Isobutane	0.6798
n-Butane	1.0374
Isopentane	0.3546
n-Pentane	0.2588
n-Hexane	0.0798
Other Hexanes	0.2728
Heptanes	0.0346
2,2,4-Trimethylpentane	0.0047
Benzene	0.0051
Toluene	0.0034
Ethylbenzene	0.0002
Xylenes	0.0017
C8+ Heavies	0.0213

DRY GAS:

Flow Rate: 2.0 MMSCF/day
Water Content: 7.0 lbs. H2O/MMSCF

LEAN GLYCOL:

Glycol Type: DEG
Water Content: 1.5 wt% H2O
Flow Rate: 0.3 gpm

PUMP:

Glycol Pump Type: Gas Injection
Gas Injection Pump Volume Ratio: 0.130 acfm gas/gpm glycol

GRI-GLYCalc VERSION 4.0 - EMISSIONS SUMMARY

Case Name: Huerfano
File Name: I:\Projects\Enterprise\New Mexico\Huerfano\SO2 Update\Huerfano GLYCalc.ddf
Date: September 28, 2012

UNCONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	1.3607	32.658	5.9600
Ethane	0.3412	8.189	1.4946
Propane	0.2558	6.140	1.1206
Isobutane	0.0659	1.581	0.2885
n-Butane	0.1194	2.865	0.5228
Isopentane	0.0705	1.692	0.3088
n-Pentane	0.0623	1.496	0.2730
n-Hexane	0.0392	0.940	0.1715
Other Hexanes	0.1130	2.712	0.4949
Heptanes	0.0508	1.219	0.2225
2,2,4-Trimethylpentane	0.0039	0.094	0.0171
Benzene	0.0739	1.774	0.3238
Toluene	0.1527	3.665	0.6688
Ethylbenzene	0.0178	0.427	0.0780
Xylenes	0.1801	4.321	0.7887
C8+ Heavies	0.2658	6.380	1.1643
Total Emissions	3.1730	76.153	13.8979
Total Hydrocarbon Emissions	3.1730	76.153	13.8979
Total VOC Emissions	1.4711	35.306	6.4433
Total HAP Emissions	0.4676	11.221	2.0479
Total BTEX Emissions	0.4245	10.188	1.8592

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	T-1
City:	Bloomfield
State:	New Mexico
Company:	Mid America Pipeline Company LLC
Type of Tank:	Vertical Fixed Roof Tank
Description:	Waste Water Tank

Tank Dimensions

Shell Height (ft):	8.00
Diameter (ft):	5.00
Liquid Height (ft) :	7.00
Avg. Liquid Height (ft):	5.00
Volume (gallons):	1,028.16
Turnovers:	24.00
Net Throughput(gal/yr):	24,675.86
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition	Good
Roof Color/Shade:	Gray/Light
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft)	0.00
Radius (ft) (Dome Roof)	5.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Albuquerque, New Mexico (Avg Atmospheric Pressure = 12.15 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

T-1 - Vertical Fixed Roof Tank
Bloomfield, New Mexico

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Waste Water	Jan	52.11	43.75	60.47	58.39	0.1990	0.1460	0.2682	19.9295			18.16	
Natural Gas Condensate						3.9385	3.3144	4.6542	67.0000	0.0100	0.1314	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.1916	0.1397	0.2595	18.0153	0.9900	0.8686	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Feb	55.91	46.04	65.79	58.39	0.2282	0.1591	0.3225	19.8171			18.16	
Natural Gas Condensate						4.2522	3.4771	5.1609	67.0000	0.0100	0.1244	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.2202	0.1526	0.3129	18.0153	0.9900	0.8756	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Mar	60.59	48.87	72.31	58.39	0.2693	0.1767	0.4022	19.6904			18.16	
Natural Gas Condensate						4.6646	3.6862	5.8420	67.0000	0.0100	0.1164	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.2606	0.1697	0.3914	18.0153	0.9900	0.8836	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Apr	66.24	52.43	80.06	58.39	0.3276	0.2013	0.5189	19.5521			18.16	
Natural Gas Condensate						5.2065	3.9639	6.7438	67.0000	0.0100	0.1075	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.3180	0.1938	0.5066	18.0153	0.9900	0.8925	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	May	71.35	56.52	86.19	58.39	0.3895	0.2332	0.6311	19.4397			18.16	
Natural Gas Condensate						5.7381	4.3036	7.5321	67.0000	0.0100	0.1002	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.3789	0.2251	0.6175	18.0153	0.9900	0.8998	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Jun	76.28	60.87	91.69	58.39	0.4587	0.2720	0.7493	19.3414			18.16	
Natural Gas Condensate						6.2913	4.6905	8.3009	67.0000	0.0100	0.0938	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.4472	0.2632	0.7344	18.0153	0.9900	0.9062	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Jul	77.43	63.32	91.53	58.39	0.4763	0.2962	0.7455	19.3199			18.16	
Natural Gas Condensate						6.4257	4.9208	8.2770	67.0000	0.0100	0.0924	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.4645	0.2871	0.7306	18.0153	0.9900	0.9076	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Aug	75.38	62.36	88.39	58.39	0.4453	0.2865	0.6762	19.3588			18.16	
Natural Gas Condensate						6.1866	4.8296	7.8323	67.0000	0.0100	0.0949	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.4339	0.2775	0.6621	18.0153	0.9900	0.9051	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Sep	70.80	58.96	82.64	58.39	0.3824	0.2543	0.5638	19.4513			18.16	
Natural Gas Condensate						5.6787	4.5176	7.0673	67.0000	0.0100	0.1010	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.3719	0.2459	0.5510	18.0153	0.9900	0.8990	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Oct	64.18	53.47	74.88	58.39	0.3051	0.2090	0.4381	19.6008			18.16	
Natural Gas Condensate						5.0029	4.0484	6.1302	67.0000	0.0100	0.1106	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.2958	0.2014	0.4268	18.0153	0.9900	0.8894	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Nov	56.87	48.01	65.73	58.39	0.2361	0.1712	0.3219	19.7902			18.16	
Natural Gas Condensate						4.3339	3.6215	5.1552	67.0000	0.0100	0.1227	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.2280	0.1643	0.3123	18.0153	0.9900	0.8773	18.02	Option 2: A=8.07131, B=1730.63, C=233.426
Waste Water	Dec	52.14	44.29	59.99	58.39	0.1992	0.1490	0.2637	19.9287			18.16	
Natural Gas Condensate						3.9408	3.3520	4.6104	67.0000	0.0100	0.1313	92.00	Option 4: RVP=9, ASTM Slope=3
Water						0.1918	0.1427	0.2551	18.0153	0.9900	0.8687	18.02	Option 2: A=8.07131, B=1730.63, C=233.426

TANKS 4.0.9d
Emissions Report - Detail Format

Detail Calculations (AP-42)

T-1 - Vertical Fixed Roof Tank
Bloomfield, New Mexico

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.1001	0.1231	0.1919	0.2680	0.3553	0.4235	0.4145	0.3552	0.2662	0.1972	0.1215	0.0937
Vapor Space Volume (cu ft):	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387
Vapor Density (lb/cu ft):	0.0007	0.0008	0.0009	0.0011	0.0013	0.0015	0.0016	0.0015	0.0013	0.0011	0.0008	0.0007
Vapor Space Expansion Factor:	0.0706	0.0853	0.1040	0.1269	0.1405	0.1507	0.1384	0.1255	0.1105	0.0960	0.0762	0.0660
Vented Vapor Saturation Factor:	0.9660	0.9611	0.9545	0.9451	0.9354	0.9248	0.9222	0.9269	0.9365	0.9487	0.9598	0.9659
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387	65.6387
Tank Diameter (ft):	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Vapor Space Outage (ft):	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430
Tank Shell Height (ft):	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000
Average Liquid Height (ft):	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Roof Outage (ft):	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430
Roof Outage (Dome Roof)												
Roof Outage (ft):	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430	0.3430
Dome Radius (ft):	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Shell Radius (ft):	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000
Vapor Density												
Vapor Density (lb/cu ft):	0.0007	0.0008	0.0009	0.0011	0.0013	0.0015	0.0016	0.0015	0.0013	0.0011	0.0008	0.0007
Vapor Molecular Weight (lb/lb-mole):	19.9295	19.8171	19.6904	19.5521	19.4397	19.3414	19.3199	19.3588	19.4513	19.6008	19.7902	19.9287
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1990	0.2282	0.2693	0.3276	0.3895	0.4587	0.4763	0.4453	0.3824	0.3051	0.2361	0.1992
Daily Avg. Liquid Surface Temp. (deg. R):	511.7800	515.5846	520.2566	525.9138	531.0225	535.9504	537.0953	535.0455	530.4709	523.8459	516.5386	511.8089
Daily Average Ambient Temp. (deg. F):	34.2500	39.9500	46.8000	55.2000	64.1500	74.1500	78.4500	75.8000	68.5500	57.0000	44.2500	35.3000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642
Tank Paint Solar Absorptance (Shell):	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400
Tank Paint Solar Absorptance (Roof):	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400
Daily Total Solar Insulation Factor (Btu/sqft day):	1,017.1676	1,321.1123	1,709.7680	2,169.4923	2,443.9308	2,567.6661	2,392.5331	2,185.3558	1,860.7886	1,499.1008	1,101.2442	915.6412
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0706	0.0853	0.1040	0.1269	0.1405	0.1507	0.1384	0.1255	0.1105	0.0960	0.0762	0.0660
Daily Vapor Temperature Range (deg. R):	33.4516	39.4872	46.8757	55.2667	59.3442	61.6471	56.4071	52.0506	47.3591	42.8264	35.4428	31.4125
Daily Vapor Pressure Range (psia):	0.1222	0.1634	0.2255	0.3176	0.3979	0.4774	0.4493	0.3897	0.3095	0.2291	0.1507	0.1147
Breather Vent Press. Setting Range(psia):	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1990	0.2282	0.2693	0.3276	0.3895	0.4587	0.4763	0.4453	0.3824	0.3051	0.2361	0.1992
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.1460	0.1591	0.1767	0.2013	0.2332	0.2720	0.2962	0.2865	0.2543	0.2090	0.1712	0.1490
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.2682	0.3225	0.4022	0.5189	0.6311	0.7493	0.7455	0.6762	0.5638	0.4381	0.3219	0.2637
Daily Avg. Liquid Surface Temp. (deg R):	511.7800	515.5846	520.2566	525.9138	531.0225	535.9504	537.0953	535.0455	530.4709	523.8459	516.5386	511.8089
Daily Min. Liquid Surface Temp. (deg R):	503.4171	505.7128	508.5377	512.0971	516.1865	520.5386	522.9935	522.0328	518.6311	513.1393	507.6779	503.9557
Daily Max. Liquid Surface Temp. (deg R):	520.1429	525.4564	531.9755	539.7305	545.8586	551.3622	551.1971	548.0581	542.3106	534.5525	525.3993	519.6620
Daily Ambient Temp. Range (deg. R):	25.1000	27.1000	29.2000	31.2000	31.1000	31.7000	28.1000	26.4000	26.7000	28.0000	26.1000	24.4000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9660	0.9611	0.9545	0.9451	0.9354	0.9248	0.9222	0.9269	0.9365	0.9487	0.9598	0.9659
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.1990	0.2282	0.2693	0.3276	0.3895	0.4587	0.4763	0.4453	0.3824	0.3051	0.2361	0.1992
Vapor Space Outage (ft):	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430	3.3430
Working Losses (lb):	0.1941	0.2214	0.2596	0.3136	0.3707	0.4344	0.4505	0.4220	0.3642	0.2928	0.2288	0.1943
Vapor Molecular Weight (lb/lb-mole):	19.9295	19.8171	19.6904	19.5521	19.4397	19.3414	19.3199	19.3588	19.4513	19.6008	19.7902	19.9287
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1990	0.2282	0.2693	0.3276	0.3895	0.4587	0.4763	0.4453	0.3824	0.3051	0.2361	0.1992

Net Throughput (gal/mo.):	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220	2,056.3220
Annual Turnovers:	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Maximum Liquid Volume (gal):	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610	1,028.1610
Maximum Liquid Height (ft):	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000
Tank Diameter (ft):	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	0.2943	0.3445	0.4515	0.5816	0.7261	0.8579	0.8650	0.7773	0.6304	0.4900	0.3502	0.2880

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

T-1 - Vertical Fixed Roof Tank
Bloomfield, New Mexico

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Waste Water	3.75	2.91	6.66
Natural Gas Condensate	0.40	0.30	0.70
Water	3.35	2.61	5.95

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	T-2
City:	Bloomfield
State:	New Mexico
Company:	Mid America Pipeline Company LLC
Type of Tank:	Horizontal Tank
Description:	Methanol Tank

Tank Dimensions

Shell Length (ft):	5.00
Diameter (ft):	3.00
Volume (gallons):	100.00
Turnovers:	6.00
Net Throughput(gal/yr):	600.00
Is Tank Heated (y/n):	N
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition	Good

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Albuquerque, New Mexico (Avg Atmospheric Pressure = 12.15 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

T-2 - Horizontal Tank
Bloomfield, New Mexico

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Methyl alcohol	Jan	52.11	43.75	60.47	58.39	1.1197	0.8476	1.4637	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Feb	55.91	46.04	65.79	58.39	1.2665	0.9159	1.7263	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Mar	60.59	48.87	72.31	58.39	1.4690	1.0064	2.1025	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Apr	66.24	52.43	80.06	58.39	1.7507	1.1314	2.6390	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	May	71.35	56.52	86.19	58.39	2.0435	1.2911	3.1413	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Jun	76.28	60.87	91.69	58.39	2.3646	1.4820	3.6593	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Jul	77.43	63.32	91.53	58.39	2.4450	1.6000	3.6428	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Aug	75.38	62.36	88.39	58.39	2.3026	1.5529	3.3403	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Sep	70.80	58.96	82.64	58.39	2.0100	1.3956	2.8415	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Oct	64.18	53.47	74.88	58.39	1.6428	1.1704	2.2694	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Nov	56.87	48.01	65.73	58.39	1.3058	0.9781	1.7233	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13
Methyl alcohol	Dec	52.14	44.29	59.99	58.39	1.1208	0.8632	1.4418	32.0400			32.04	Option 2: A=7.897, B=1474.08, C=229.13

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

T-2 - Horizontal Tank
Bloomfield, New Mexico

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.4847	0.6112	0.9856	1.4393	1.9925	2.4814	2.4563	2.0668	1.4884	1.0440	0.6086	0.4541
Vapor Space Volume (cu ft):	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114
Vapor Density (lb/cu ft):	0.0065	0.0073	0.0084	0.0099	0.0115	0.0132	0.0136	0.0128	0.0113	0.0094	0.0075	0.0065
Vapor Space Expansion Factor:	0.1158	0.1455	0.1871	0.2443	0.2889	0.3314	0.3093	0.2727	0.2259	0.1806	0.1318	0.1084
Vented Vapor Saturation Factor:	0.9183	0.9085	0.8954	0.8778	0.8602	0.8418	0.8373	0.8453	0.8622	0.8845	0.9060	0.9182
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114	22.5114
Tank Diameter (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Effective Diameter (ft):	4.3713	4.3713	4.3713	4.3713	4.3713	4.3713	4.3713	4.3713	4.3713	4.3713	4.3713	4.3713
Vapor Space Outage (ft):	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000
Tank Shell Length (ft):	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Vapor Density												
Vapor Density (lb/cu ft):	0.0065	0.0073	0.0084	0.0099	0.0115	0.0132	0.0136	0.0128	0.0113	0.0094	0.0075	0.0065
Vapor Molecular Weight (lb/lb-mole):	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	1.1197	1.2665	1.4690	1.7507	2.0435	2.3646	2.4450	2.3026	2.0100	1.6428	1.3058	1.1208
Daily Avg. Liquid Surface Temp. (deg. R):	511.7800	515.5846	520.2566	525.9138	531.0225	535.9504	537.0953	535.0455	530.4709	523.8459	516.5386	511.8089
Daily Average Ambient Temp. (deg. F):	34.2500	39.9500	46.8000	55.2000	64.1500	74.1500	78.4500	75.8000	68.5500	57.0000	44.2500	35.3000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642	518.0642
Tank Paint Solar Absorptance (Shell):	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400
Daily Total Solar Insulation Factor (Btu/sqft day):	1,017.1676	1,321.1123	1,709.7680	2,169.4923	2,443.9308	2,567.6661	2,392.5331	2,185.3558	1,860.7886	1,499.1008	1,101.2442	915.6412
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.1158	0.1455	0.1871	0.2443	0.2889	0.3314	0.3093	0.2727	0.2259	0.1806	0.1318	0.1084
Daily Vapor Temperature Range (deg. R):	33.4516	39.4872	46.8757	55.2667	59.3442	61.6471	56.4071	52.0506	47.3591	42.8264	35.4428	31.4125
Daily Vapor Pressure Range (psia):	0.6162	0.8104	1.0961	1.5076	1.8502	2.1773	2.0428	1.7874	1.4459	1.0990	0.7452	0.5786
Breather Vent Press. Setting Range(psia):	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	1.1197	1.2665	1.4690	1.7507	2.0435	2.3646	2.4450	2.3026	2.0100	1.6428	1.3058	1.1208
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.8476	0.9159	1.0064	1.1314	1.2911	1.4820	1.6000	1.5529	1.3956	1.1704	0.9781	0.8632
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	1.4637	1.7263	2.1025	2.6390	3.1413	3.6593	3.6428	3.3403	2.8415	2.2694	1.7233	1.4418
Daily Avg. Liquid Surface Temp. (deg R):	511.7800	515.5846	520.2566	525.9138	531.0225	535.9504	537.0953	535.0455	530.4709	523.8459	516.5386	511.8089
Daily Min. Liquid Surface Temp. (deg R):	503.4171	505.7128	508.5377	512.0971	516.1865	520.5386	522.9935	522.0328	518.6311	513.1393	507.6779	503.9557
Daily Max. Liquid Surface Temp. (deg R):	520.1429	525.4564	531.9755	539.7305	545.8586	551.3622	551.1971	548.0581	542.3106	534.5525	525.3993	519.6620
Daily Ambient Temp. Range (deg. R):	25.1000	27.1000	29.2000	31.2000	31.1000	31.7000	28.1000	26.4000	26.7000	28.0000	26.1000	24.4000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9183	0.9085	0.8954	0.8778	0.8602	0.8418	0.8373	0.8453	0.8622	0.8845	0.9060	0.9182
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	1.1197	1.2665	1.4690	1.7507	2.0435	2.3646	2.4450	2.3026	2.0100	1.6428	1.3058	1.1208
Vapor Space Outage (ft):	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000
Working Losses (lb):	0.0427	0.0483	0.0560	0.0668	0.0779	0.0902	0.0933	0.0878	0.0767	0.0627	0.0498	0.0427
Vapor Molecular Weight (lb/lb-mole):	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400	32.0400
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	1.1197	1.2665	1.4690	1.7507	2.0435	2.3646	2.4450	2.3026	2.0100	1.6428	1.3058	1.1208
Net Throughput (gal/mo.):	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000

Annual Turnovers:	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tank Diameter (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	0.5274	0.6595	1.0417	1.5061	2.0705	2.5716	2.5496	2.1546	1.5651	1.1066	0.6584	0.4968

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

T-2 - Horizontal Tank
Bloomfield, New Mexico

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Methyl alcohol	0.79	16.11	16.91

TANKS 4.0.9d
Emissions Report - Detail Format
Total Emissions Summaries - All Tanks in Report

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

Tank Identification				Losses (lbs)
T-1	Mid America Pipeline Company LLC	Vertical Fixed Roof Tank	Bloomfield, New Mexico	6.66
T-2	Mid America Pipeline Company LLC	Horizontal Tank	Bloomfield, New Mexico	16.91
Total Emissions for all Tanks:				23.56

United States Environmental Protection Agency
Office of Air Quality Planning and Standards Research Triangle Park NC 27711
EPA-453/R-95-017 November 1995
Air

EPA

Protocol for Equipment Leak Emission Estimates

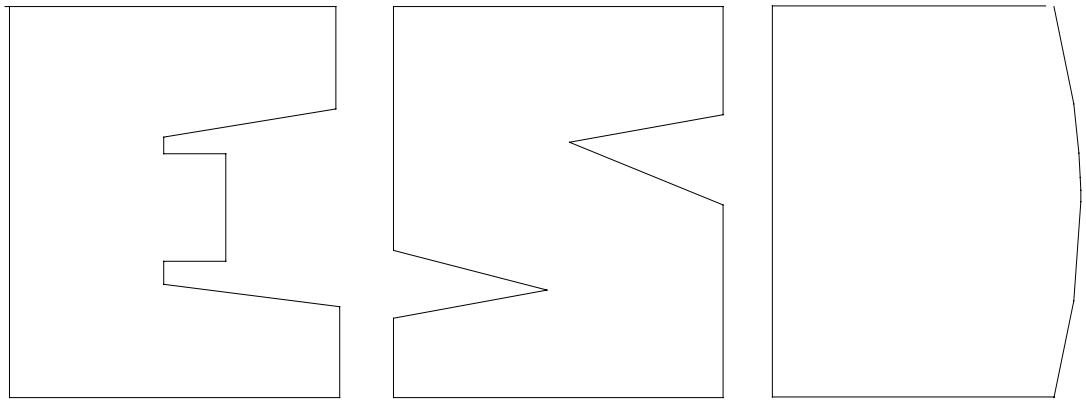

TABLE 2-4. OIL AND GAS PRODUCTION OPERATIONS AVERAGE EMISSION FACTORS (kg/hr/source)

Equipment Type	Service[a]	Emission Factor (kg/hr/source)[b]
Valves	Gas	4.5E-03
	Heavy Oil	8.4E-06
	Light Oil	2.5E-03
	Water/Oil	9.8E-05
Pump seals	Gas	2.4E-03
	Heavy Oil	NA
	Light Oil	1.3E-02
	Water/Oil	2.4E-05
Others[c]	Gas	8.8E-03
	Heavy Oil	3.2E-05
	Light Oil	7.5E-03
	Water/Oil	1.4E-02
Connectors	Gas	2.0E-04
	Heavy Oil	7.5E-06
	Light Oil	2.1E-04
	Water/Oil	1.1E-04
Flanges	Gas	3.9E-04
	Heavy Oil	3.9E-07
	Light Oil	1.1E-04
	Water/Oil	2.9E-06
Open-ended lines	Gas	2.0E-03
	Heavy Oil	1.4E-04
	Light Oil	1.4E-03
	Water/Oil	2.5E-04

[a]Water/Oil emission factors apply to water streams in oil service with a water content greater than 50%, from the point of origin to the point where the water content reaches 99%. For water streams with a water content greater than 99%, the emission rate is considered negligible.

[b]These factors are for total organic compound emission rates (including non-VOC's such as methane and ethane) and apply to light crude, heavy crude, gas plant, gas production, and off shore facilities. "NA" indicates that not enough data were available to develop the indicated emission factor.

[c]The "other" equipment type was derived from compressors, diaphrams, drains, dump arms, hatches, instruments, meters, pressure relief valves, polished rods, relief valves, and vents. This "other" equipment type should be applied for any equipment type other than connectors, flanges, open-ended lines, pumps, or valves.

Liquid Speciation Summary

HAP	wt%	Source
n-Hexane	6.460	aspentech report
Benzene	1.050	aspentech report
Toluene	3.200	aspentech report
Ethylbenzene*	0.220	Texas Environmental Research Consortium report
m+p-Xylene	0.250	aspentech report
o-Xylene*	0.150	Texas Environmental Research Consortium report
Total	**11.330**	

* Data taken from Texas Environmental Research Consortium report because HAP is not included in aspentech report, but believed to be present in condensate based on process knowledge.

Note: xylene (mixed isomers) is reported in this application and is the combination of m+p-xylene and o-xylene shown above.

Material Stream: TANK FLARE

Fluid Package: Basis-1
Property Package: Peng-Robinson

CONDITIONS

	Overall	Vapour Phase	Liquid Phase		
Vapour / Phase Fraction	1.0000	1.0000	0.0000		
Temperature: (F)	38.02	38.02	38.02		
Pressure: (psig*)	0.0000	0.0000	0.0000		
Molar Flow (MMSCFD)	7.947e-002	7.947e-002	7.947e-010		
Mass Flow (lb/hr)	350.0	350.0	7.711e-006		
Std Ideal Liq Vol Flow (USGPM)	1.473	1.473	2.274e-008		
Molar Enthalpy (Btu/lbmole)	-4.587e+004	-4.587e+004	-8.392e+004		
Molar Entropy (Btu/lbmole-F)	43.29	43.29	12.16		
Heat Flow (Btu/hr)	-4.002e+005	-4.002e+005	-7.323e-003		
Liq Vol Flow @Std Cond (USGPM)	1.485 *	1.485	2.253e-008		

PROPERTIES

	Overall	Vapour Phase	Liquid Phase		
Molecular Weight	40.11	40.11	88.37		
Molar Density (lbmole/ft3)	2.169e-003	2.169e-003	0.4908		
Mass Density (lb/ft3)	8.699e-002	8.699e-002	43.37		
Act. Volume Flow (USGPM)	501.7	501.7	2.217e-008		
Mass Enthalpy (Btu/lb)	-1143	-1143	-949.7		
Mass Entropy (Btu/lb-F)	1.079	1.079	0.1376		
Heat Capacity (Btu/lbmole-F)	15.75	15.75	42.13		
Mass Heat Capacity (Btu/lb-F)	0.3927	0.3927	0.4767		
Lower Heating Value (Btu/lbmole)	7.910e+005	7.910e+005	1.700e+006		
Mass Lower Heating Value (Btu/lb)	1.972e+004	1.972e+004	1.924e+004		
Phase Fraction [Vol. Basis]	---	1.000	1.544e-008		
Phase Fraction [Mass Basis]	2.122e-314	1.000	2.203e-008		
Partial Pressure of CO2 (psig*)	-11.31	---	---		
Cost Based on Flow (Cost/s)	0.0000	0.0000	0.0000		
Act. Gas Flow (ACFM)	---	67.07	---		
Avg. Liq. Density (lbmole/ft3)	0.7386	0.7386	0.4784		
Specific Heat (Btu/lbmole-F)	15.75	15.75	42.13		
Std. Gas Flow (MMSCFD)	7.947e-002	7.947e-002	7.947e-010		
Std. Ideal Liq. Mass Density (lb/ft3)	29.63	29.63	42.28		
Act. Liq. Flow (USGPM)	---	---	---		
Z Factor	---	0.9871	4.362e-003		
Watson K	15.29	15.29	12.57		
User Property	---	---	---		
Partial Pressure of H2S (psig*)	-11.43	---	---		
Cp/(Cp - R)	1.144	1.144	1.049		
Cp/Cv	1.152	1.152	1.049		
Heat of Vap. (Btu/lbmole)	1.191e+004	---	---		
Kinematic Viscosity (cSt)	5.973	5.973	0.6357		
Liq. Mass Density (Std. Cond) (lb/ft3)	29.39	29.39	42.67		
Liq. Vol. Flow (Std. Cond) (USGPM)	1.485	1.485	2.253e-008		
Liquid Fraction	0.0000	0.0000	1.000		
Molar Volume (ft3/lbmole)	461.1	461.1	2.038		
Mass Heat of Vap. (Btu/lb)	297.0	---	---		
Phase Fraction [Molar Basis]	1.0000	1.0000	0.0000		
Surface Tension (dyne/cm)	---	---	20.22		
Thermal Conductivity (Btu/hr-ft-F)	1.026e-002	1.026e-002	6.924e-002		
Viscosity (cP)	8.322e-003	8.322e-003	0.4416		
Cv (Semi-Ideal) (Btu/lbmole-F)	13.77	13.77	40.14		

* Specified by user.

Material Stream: TANK FLARE (continued)

Fluid Package: Basis-1
Property Package: Peng-Robinson

PROPERTIES

		Overall	Vapour Phase	Liquid Phase		
Mass Cv (Semi-Ideal)	(Btu/lb-F)	0.3432	0.3432	0.4542		
Cv	(Btu/lbmole-F)	13.68	13.68	40.14		
Mass Cv	(Btu/lb-F)	0.3410	0.3410	0.4542		
Cv (Ent. Method)	(Btu/lbmole-F)	---	---	---		
Mass Cv (Ent. Method)	(Btu/lb-F)	---	---	---		
Cp/Cv (Ent. Method)		---	---	---		
Reid VP at 37.8 C	(psig*)	---	---	6.977		
True VP at 37.8 C	(psig*)	772.6	772.6	13.48		
Liq. Vol. Flow - Sum(Std. Cond)	(USGPM)	1.485	1.485	0.0000		
Viscosity Index		---	---	-2.288		

COMPOSITION

Overall Phase

Vapour Fraction 1.0000

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (USGPM)	LIQUID VOLUME FRACTION
Nitrogen	0.0008	0.0001	0.0226	0.0001	0.0001	0.0000
CO2	0.0895	0.0103	3.9392	0.0113	0.0095	0.0065
Methane	1.6415	0.1881	26.3339	0.0752	0.1757	0.1193
Ethane	2.3721	0.2718	71.3302	0.2038	0.4005	0.2719
Propane	2.4704	0.2831	108.9355	0.3112	0.4294	0.2915
i-Butane	0.5143	0.0589	29.8913	0.0854	0.1062	0.0721
n-Butane	0.8302	0.0951	48.2560	0.1379	0.1652	0.1122
i-Pentane	0.2913	0.0334	21.0204	0.0601	0.0673	0.0457
n-Pentane	0.2132	0.0244	15.3837	0.0439	0.0488	0.0331
n-Hexane	0.0557	0.0064	4.7991	0.0137	0.0145	0.0098
n-Heptane	0.0369	0.0042	3.7021	0.0106	0.0108	0.0073
n-Octane	0.0048	0.0005	0.5477	0.0016	0.0016	0.0011
n-Nonane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-C11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22-Mbutane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cyclopentane	0.0127	0.0015	0.8901	0.0025	0.0024	0.0016
2-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MCC5==	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mcyclopentan	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzene	0.0093	0.0011	0.7284	0.0021	0.0016	0.0011
33-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cyclohexane	0.0263	0.0030	2.2116	0.0063	0.0056	0.0038
2-Mhexane	0.0945	0.0108	9.4737	0.0271	0.0278	0.0188
23-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11Mcycpentan	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Mhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-tr3-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-ci3-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mcyclohexane	0.0124	0.0014	1.2164	0.0035	0.0031	0.0021
113-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25-Mhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Toluene	0.0061	0.0007	0.5614	0.0016	0.0013	0.0009

* Specified by user.

Material Stream: TANK FLARE (continued)

Fluid Package: Basis-1
Property Package: Peng-Robinson

COMPOSITION

Overall Phase (continued)

Vapour Fraction 1.0000

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (USGPM)	LIQUID VOLUME FRACTION
Naphthalene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ecyclohexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
p-Xylene	0.0001	0.0000	0.0102	0.0000	0.0000	0.0000
m-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2-Moctane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
o-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
H2O	0.0440	0.0050	0.7923	0.0023	0.0016	0.0011
Methanol	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.7262	1.0000	350.0457	1.0000	1.4730	1.0000

Vapour Phase

Phase Fraction 1.000

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (USGPM)	LIQUID VOLUME FRACTION
Nitrogen	0.0008	0.0001	0.0226	0.0001	0.0001	0.0000
CO2	0.0895	0.0103	3.9392	0.0113	0.0095	0.0065
Methane	1.6415	0.1881	26.3339	0.0752	0.1757	0.1193
Ethane	2.3721	0.2718	71.3302	0.2038	0.4005	0.2719
Propane	2.4704	0.2831	108.9355	0.3112	0.4294	0.2915
i-Butane	0.5143	0.0589	29.8913	0.0854	0.1062	0.0721
n-Butane	0.8302	0.0951	48.2560	0.1379	0.1652	0.1122
i-Pentane	0.2913	0.0334	21.0204	0.0601	0.0673	0.0457
n-Pentane	0.2132	0.0244	15.3837	0.0439	0.0488	0.0331
n-Hexane	0.0557	0.0064	4.7991	0.0137	0.0145	0.0098
n-Heptane	0.0369	0.0042	3.7021	0.0106	0.0108	0.0073
n-Octane	0.0048	0.0005	0.5477	0.0016	0.0016	0.0011
n-Nonane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-C11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22-Mbutane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cyclopentane	0.0127	0.0015	0.8901	0.0025	0.0024	0.0016
2-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MCC5==	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mcyclopentan	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzene	0.0093	0.0011	0.7284	0.0021	0.0016	0.0011
33-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cyclohexane	0.0263	0.0030	2.2116	0.0063	0.0056	0.0038
2-Mhexane	0.0945	0.0108	9.4737	0.0271	0.0278	0.0188
23-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11Mcycpentan	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Mhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-tr3-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-ci3-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mcyclohexane	0.0124	0.0014	1.2164	0.0035	0.0031	0.0021
113-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25-Mhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Toluene	0.0061	0.0007	0.5614	0.0016	0.0013	0.0009

* Specified by user.

Material Stream: TANK FLARE (continued)

Fluid Package: Basis-1
Property Package: Peng-Robinson

COMPOSITION

Vapour Phase (continued)

Phase Fraction 1.000

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (USGPM)	LIQUID VOLUME FRACTION
Naphthalene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ecyclohexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
p-Xylene	0.0001	0.0000	0.0102	0.0000	0.0000	0.0000
m-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2-Moctane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
o-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
H2O	0.0440	0.0050	0.7923	0.0023	0.0016	0.0011
Methanol	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.7262	1.0000	350.0457	1.0000	1.4730	1.0000

Liquid Phase

Phase Fraction 1.000e-008

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (USGPM)	LIQUID VOLUME FRACTION
Nitrogen	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CO2	0.0000	0.0002	0.0000	0.0001	0.0000	0.0001
Methane	0.0000	0.0009	0.0000	0.0002	0.0000	0.0004
Ethane	0.0000	0.0094	0.0000	0.0032	0.0000	0.0061
Propane	0.0000	0.0428	0.0000	0.0213	0.0000	0.0285
i-Butane	0.0000	0.0262	0.0000	0.0172	0.0000	0.0207
n-Butane	0.0000	0.0635	0.0000	0.0417	0.0000	0.0485
i-Pentane	0.0000	0.0635	0.0000	0.0518	0.0000	0.0563
n-Pentane	0.0000	0.0657	0.0000	0.0536	0.0000	0.0577
n-Hexane	0.0000	0.0662	0.0000	0.0646	0.0000	0.0660
n-Heptane	0.0000	0.1600	0.0000	0.1814	0.0000	0.1789
n-Octane	0.0000	0.0752	0.0000	0.0972	0.0000	0.0933
n-Nonane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-C11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22-Mbutane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cyclopentane	0.0000	0.0055	0.0000	0.0044	0.0000	0.0039
2-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MCC5==	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mcyclopentan	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzene	0.0000	0.0119	0.0000	0.0105	0.0000	0.0081
33-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cyclohexane	0.0000	0.0410	0.0000	0.0390	0.0000	0.0338
2-Mhexane	0.0000	0.2897	0.0000	0.3285	0.0000	0.3264
23-Mpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11Mcycpentan	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Mhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-tr3-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-ci3-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mcyclohexane	0.0000	0.0457	0.0000	0.0507	0.0000	0.0445
113-MCC5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25-Mhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Toluene	0.0000	0.0307	0.0000	0.0320	0.0000	0.0249

* Specified by user.

Material Stream: TANK FLARE (continued)

Fluid Package: Basis-1
Property Package: Peng-Robinson

COMPOSITION

Liquid Phase (continued)

Phase Fraction 1.000e-008

COMPONENTS	MOLAR FLOW (lbmole/hr)	MOLE FRACTION	MASS FLOW (lb/hr)	MASS FRACTION	LIQUID VOLUME FLOW (USGPM)	LIQUID VOLUME FRACTION
Naphthalene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ecyclohexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
p-Xylene	0.0000	0.0021	0.0000	0.0025	0.0000	0.0020
m-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2-Moctane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
o-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
H2O	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
Methanol	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

K VALUE

COMPONENTS	MIXED	LIGHT	HEAVY
Nitrogen	---	827.6	---
CO2	---	66.15	---
Methane	---	211.2	---
Ethane	---	28.84	---
Propane	---	6.618	---
i-Butane	---	2.252	---
n-Butane	---	1.499	---
i-Pentane	---	0.5261	---
n-Pentane	---	0.3719	---
n-Hexane	---	9.640e-002	---
n-Heptane	---	2.646e-002	---
n-Octane	---	7.310e-003	---
n-Nonane	---	---	---
n-C11	---	---	---
22-Mbutane	---	---	---
Cyclopentane	---	0.2652	---
2-Mpentane	---	---	---
3-Mpentane	---	---	---
22-Mpentane	---	---	---
MCC5==	---	---	---
Mcyclopentan	---	---	---
24-Mpentane	---	---	---
Benzene	---	8.991e-002	---
33-Mpentane	---	---	---
Cyclohexane	---	7.346e-002	---
2-Mhexane	---	3.740e-002	---
23-Mpentane	---	---	---
11Mcycpentan	---	---	---
3-Mhexane	---	---	---
1-tr3-MCC5	---	---	---
1-ci3-MCC5	---	---	---
Mcyclohexane	---	3.110e-002	---
113-MCC5	---	---	---
25-Mhexane	---	---	---
Toluene	---	2.278e-002	---
Naphthalene	---	---	---

* Specified by user.

Material Stream: TANK FLARE (continued)

Fluid Package: Basis-1
Property Package: Peng-Robinson

K VALUE

COMPONENTS	MIXED	LIGHT	HEAVY
Ecyclohexane	---	---	---
p-Xylene	---	5.197e-003	---
m-Xylene	---	---	---
2-Moctane	---	---	---
o-Xylene	---	---	---
H2O	---	63.00	---
Methanol	---	---	---

* Specified by user.

VOC EMISSIONS FROM OIL AND CONDENSATE STORAGE TANKS

FINAL REPORT

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Table 3-5. Measured Vent Gas Speciation Profiles in Weight Percent for Condensate Tank Batteries

	Weight %							
	Site 13	**Site 14**	**Site 15**	**Site 16**	**Site 17**	**Site 18**	**Site 19**	**Site 20**
County:	**Denton**	**Denton**	**Denton**	**Denton**	**Denton**	**Denton**	**Denton**	**Denton**
Nitrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbon Dioxide	0.65	2.20	0.82	0.59	1.71	0.85	0.67	0.66
Methane	8.53	31.52	6.52	5.83	23.26	20.24	13.81	7.91
Ethane	9.96	12.80	10.93	8.93	9.54	8.53	8.14	11.51
Propane	17.08	12.08	18.67	16.72	10.21	10.19	9.91	17.20
Isobutane	7.02	4.48	7.84	7.48	3.68	4.54	4.76	7.30
n-butane	15.93	9.14	15.50	16.24	8.30	9.53	11.02	14.69
2,2-Dimethylpropane	0.09	0.00	0.00	0.19	0.00	0.00	0.00	0.08
Isopentane	8.52	5.34	8.60	9.25	5.38	6.26	8.90	8.96
n-pentane	9.33	5.73	9.08	10.02	6.66	7.52	10.22	9.53
2,2-Dimethylbutane	0.27	0.18	0.27	0.30	0.19	0.25	0.38	0.32
Cyclopentane	0.19	0.10	0.15	0.20	0.16	0.15	0.20	0.15
2,3-Dimethylbutane	0.43	0.28	0.45	0.48	0.36	0.43	0.59	0.47
2-Methylpentane	3.77	2.55	4.17	4.31	3.58	4.23	5.29	4.08
3-Methylpentane	1.89	1.28	2.11	2.14	1.84	2.16	2.67	2.01
n-Hexane	4.73	3.15	5.26	5.12	5.22	5.98	6.58	4.72
Methylcyclopentane	0.78	0.46	0.76	0.77	0.86	0.83	0.94	0.63
Benzene	0.19	0.13	0.18	0.20	0.22	0.23	0.25	0.17
Cyclohexane	0.94	0.58	0.83	0.88	1.14	1.16	1.17	0.76
2-Methylhexane	1.11	0.84	1.05	1.16	1.44	1.68	1.65	1.05
3-Methylhexane	1.03	0.79	0.95	1.06	1.41	1.54	1.49	0.93
2,2,4-Trimethylpentane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other C7's	1.29	0.92	1.24	1.30	1.75	1.81	1.79	1.12
n-Heptane	1.82	1.43	1.50	1.84	2.77	2.87	2.66	1.57
Methylcyclohexane	1.28	0.97	0.93	1.23	1.98	1.84	1.79	1.03
Toluene	0.40	0.33	0.25	0.41	0.69	0.65	0.58	0.35
Other C8's	1.60	1.46	1.08	1.77	3.10	3.01	2.51	1.45
n-Octane	0.39	0.38	0.26	0.46	0.93	0.91	0.62	0.38
Ethylbenzene	0.01	0.02	0.01	0.02	0.04	0.03	0.02	0.01
m+p-Xylene	0.12	0.14	0.08	0.17	0.42	0.34	0.22	0.16
o-Xylene	0.02	0.02	0.01	0.02	0.07	0.04	0.03	0.02
Other C9's	0.45	0.46	0.28	0.59	1.43	1.36	0.77	0.50
n-Nonane	0.07	0.08	0.07	0.11	0.38	0.30	0.14	0.10
Other C10's	0.09	0.13	0.11	0.17	0.75	0.41	0.21	0.15
n-Decane	0.01	0.02	0.02	0.02	0.17	0.04	0.02	0.02
Undecanes Plus	0.02	0.04	0.04	0.03	0.38	0.09	0.04	0.03
Sum	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Wt% VOC [a]	**81%**	**53%**	**82%**	**85%**	**65%**	**70%**	**77%**	**80%**

[a] Weight % VOC excludes nitrogen, carbon dioxide, methane, and ethane.

Table 3-5. (continued) Measured Vent Gas Speciation Profiles in Weight Percent for Condensate Tank Batteries

	Weight %							
	Site 23	Site 24	Site 25	Site 26	Site 27	Site 28	Site 29	Site 30
County:	Parker	Parker	Denton	Denton	Denton	Brazoria	Brazoria	Brazoria
Nitrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbon Dioxide	5.13	7.04	0.80	0.57	1.66	1.46	0.45	3.65
Methane	10.28	12.35	0.09	3.93	6.53	31.93	10.04	23.10
Ethane	3.79	10.46	0.19	6.35	5.83	11.46	6.54	11.31
Propane	3.31	12.62	0.43	12.70	9.84	15.54	21.42	16.47
Isobutane	3.58	5.99	0.43	5.82	5.17	7.81	24.37	8.90
n-butane	8.45	10.59	1.88	14.26	12.34	8.23	15.10	10.02
2,2-Dimethylpropane	0.16	0.17	0.02	0.13	0.10	0.10	0.17	0.19
Isopentane	9.76	6.89	4.69	9.59	8.76	4.57	8.77	6.60
n-pentane	9.87	6.44	7.67	11.47	10.03	3.35	4.75	4.37
2,2-Dimethylbutane	0.73	0.38	0.34	0.33	0.35	0.22	0.23	0.39
Cyclopentane	0.13	0.08	0.25	0.30	0.27	0.24	0.16	0.30
2,3-Dimethylbutane	0.84	0.46	0.78	0.62	0.56	0.33	0.45	0.50
2-Methylpentane	7.42	4.13	8.41	6.16	6.02	1.51	1.79	2.01
3-Methylpentane	3.90	2.18	4.31	2.97	2.94	0.78	0.81	1.06
n-Hexane	8.18	4.55	13.84	7.87	7.90	1.65	1.35	1.84
Methylcyclopentane	0.71	0.43	1.97	1.22	1.11	0.89	0.39	1.08
Benzene	0.39	0.19	0.52	0.27	0.27	1.07	0.28	1.35
Cyclohexane	1.39	0.75	3.08	1.37	1.49	1.01	0.51	1.09
2-Methylhexane	3.12	1.82	5.20	1.72	2.27	0.41	0.24	0.43
3-Methylhexane	2.43	1.45	4.43	1.50	1.94	0.40	0.21	0.40
2,2,4-Trimethylpentane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other C7's	1.82	1.00	4.22	1.74	1.94	0.80	0.47	0.87
n-Heptane	3.57	2.24	9.21	2.71	3.65	0.87	0.35	0.67
Methylcyclohexane	2.33	1.43	6.16	1.82	2.52	1.23	0.48	1.13
Toluene	1.08	0.67	2.12	0.56	0.83	0.68	0.10	0.67
Other C8's	4.16	2.82	9.77	2.24	3.34	1.09	0.32	0.73
n-Octane	1.06	0.80	3.05	0.59	0.87	0.45	0.08	0.21
Ethylbenzene	0.03	0.22	0.07	0.01	0.02	0.07	0.02	0.03
m+p-Xylene	0.43	0.32	0.98	0.20	0.29	0.21	0.02	0.13
o-Xylene	0.05	0.04	0.15	0.03	0.04	0.07	0.01	0.03
Other C9's	1.41	0.93	3.23	0.62	0.84	0.55	0.09	0.25
n-Nonane	0.22	0.23	0.64	0.13	0.14	0.23	0.02	0.07
Other C10's	0.25	0.30	0.77	0.18	0.13	0.41	0.03	0.11
n-Decane	0.04	0.06	0.28	0.05	0.02	0.11	0.00	0.02
Undecanes Plus	0.01	0.00	0.03	0.00	0.01	0.26	0.01	0.05
Sum	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Wt% VOC [a]	**80%**	**70%**	**99%**	**89%**	**86%**	**55%**	**83%**	**62%**

[a] Weight % VOC excludes nitrogen, carbon dioxide, methane, and ethane.

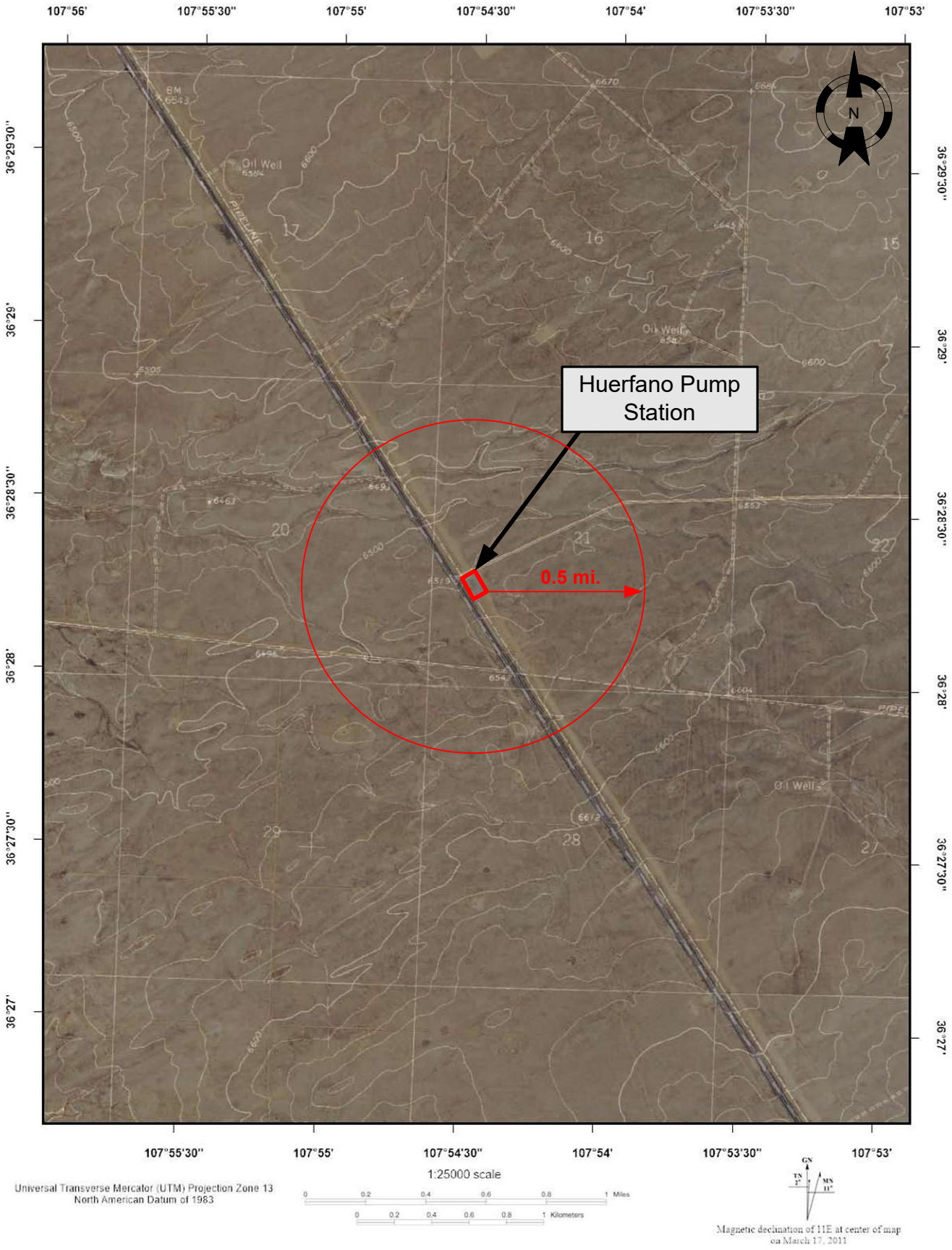
Section 8

Map(s)

A map such as a 7.5 minute topographic quadrangle showing the exact location of the source. The map shall also include the following:

The UTM or Longitudinal coordinate system on both axes	An indicator showing which direction is north
A minimum radius around the plant of 0.8km (0.5 miles)	Access and haul roads
Topographic features of the area	Facility property boundaries
The name of the map	The area which will be restricted to public access
A graphical scale	

An area map is attached.



ALLIANT ENVIRONMENTAL, LLC	**Area Map**		**Mid-America Pipeline Company, LLC**
Scale: **1:25,000**	Drawn by: MDF	Date: 2/17/2022	**Huerfano Pump Station** N 32° 15' 7.4" Latitude W 103° 34' 5.4" Longitude
	Chk'd by:	Date:	
Project No.: 066-039	File Name: **Huerfano Figures**	Figure: Section 8	

Section 9

Proof of Public Notice

(for NSR applications submitting under 20.2.72 or 20.2.74 NMAC)
(This proof is required by: 20.2.72.203.A.14 NMAC "Documentary Proof of applicant's public notice")

Public notice is not required with this Title V permit renewal application as it is being submitted under 20.2.70 NMAC. Public notice has been completed in the past for NSR Permit number 0888-M6R2.

Section 10

Written Description of the Routine Operations of the Facility

---

A written description of the routine operations of the facility. Include a description of how each piece of equipment will be operated, how controls will be used, and the fate of both the products and waste generated. For modifications and/or revisions, explain how the changes will affect the existing process. In a separate paragraph describe the major process bottlenecks that limit production. The purpose of this description is to provide sufficient information about plant operations for the permit writer to determine appropriate emission sources.

The Huerfano Pump Station assists with the transport of natural gas liquids (NGL) from various processing plants through the MAPL pipeline. The turbines drive the pumps used to move the products through the pipeline. The flare is used during maintenance activities to ensure station safety.

The facility operates continuously, 24 hours per day, seven days per week, 52 weeks per year, and 8,760 hours per year.

Section 11
Source Determination

Source submitting under 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC

Sources applying for a construction permit, PSD permit, or operating permit shall evaluate surrounding and/or associated sources (including those sources directly connected to this source for business reasons) and complete this section. Responses to the following questions shall be consistent with the Air Quality Bureau's permitting guidance, Single Source Determination Guidance, which may be found on the Applications Page in the Permitting Section of the Air Quality Bureau website.

Typically, buildings, structures, installations, or facilities that have the same SIC code, that are under common ownership or control, and that are contiguous or adjacent constitute a single stationary source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes. Submission of your analysis of these factors in support of the responses below is optional, unless requested by NMED.

A. Identify the emission sources evaluated in this section (list and describe)**:**
The Huerfano Pump Station. Equipment is listed in the Section 2 Tables.

B. Apply the 3 criteria for determining a single source:

SIC Code: Surrounding or associated sources belong to the same 2-digit industrial grouping (2-digit SIC code) as this facility, OR surrounding or associated sources that belong to different 2-digit SIC codes are support facilities for this source.

☑ **Yes** ☐ **No**

Common Ownership or Control: Surrounding or associated sources are under common ownership or control as this source.

☑ **Yes** ☐ **No**

Contiguous or Adjacent: Surrounding or associated sources are contiguous or adjacent with this source.

☑ **Yes** ☐ **No**

C. Make a determination:

☑ The source, as described in this application, constitutes the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes. If in "A" above you evaluated only the source that is the subject of this application, all "**YES**" boxes should be checked. If in "A" above you evaluated other sources as well, you must check **AT LEAST ONE** of the boxes "**NO**" to conclude that the source, as described in the application, is the entire source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes.

☐ The source, as described in this application, **does not** constitute the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes (A permit may be issued for a portion of a source). The entire source consists of the following facilities or emissions sources (list and describe):

Section 12

Section 12.A
PSD Applicability Determination for All Sources

(Submitting under 20.2.72, 20.2.74 NMAC)

Not applicable as this is a Title V permit renewal application, being submitted under 20.2.70 NMAC.

Section 13

Determination of State & Federal Air Quality Regulations

This section lists each state and federal air quality regulation that may apply to your facility and/or equipment that are stationary sources of regulated air pollutants.

Not all state and federal air quality regulations are included in this list. Go to the Code of Federal Regulations (CFR) or to the Air Quality Bureau's regulation page to see the full set of air quality regulations.

Required Information for Specific Equipment:
For regulations that apply to specific source types, in the 'Justification' column **provide any information needed to determine if the regulation does or does not apply**. **For example**, to determine if emissions standards at 40 CFR 60, Subpart IIII apply to your three identical stationary engines, we need to know the construction date as defined in that regulation; the manufacturer date; the date of reconstruction or modification, if any; if they are or are not fire pump engines; if they are or are not emergency engines as defined in that regulation; their site ratings; and the cylinder displacement.

Required Information for Regulations that Apply to the Entire Facility:
See instructions in the 'Justification' column for the information that is needed to determine if an 'Entire Facility' type of regulation applies (e.g. 20.2.70 or 20.2.73 NMAC).

Regulatory Citations for Regulations That Do Not, but Could Apply:
If there is a state or federal air quality regulation that does not apply, but you have a piece of equipment in a source category for which a regulation has been promulgated, you must **provide the low level regulatory citation showing why your piece of equipment is not subject to or exempt from the regulation. For example** if you have a stationary internal combustion engine that is not subject to 40 CFR 63, Subpart ZZZZ because it is an existing 2 stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, your citation would be 40 CFR 63.6590(b)(3)(i). **We don't want a discussion of every non-applicable regulation, but if it is possible a regulation could apply, explain why it does not. For example,** if your facility is a power plant, you do not need to include a citation to show that 40 CFR 60, Subpart OOO does not apply to your non-existent rock crusher.

Regulatory Citations for Emission Standards:
For each unit that is subject to an emission standard in a source specific regulation, such as 40 CFR 60, Subpart OOO or 40 CFR 63, Subpart HH, include the low level regulatory citation of that emission standard. Emission standards can be numerical emission limits, work practice standards, or other requirements such as maintenance. **Here are examples:** a glycol dehydrator is subject to the general standards at 63.764C(1)(i) through (iii); an engine is subject to 63.6601, Tables 2a and 2b; a crusher is subject to 60.672(b), Table 3 and all transfer points are subject to 60.672(e)(1)

Federally Enforceable Conditions:
All federal regulations are federally enforceable. All Air Quality Bureau State regulations are federally enforceable except for the following: affirmative defense portions at 20.2.7.6.B, 20.2.7.110(B)(15), 20.2.7.11 through 20.2.7.113, 20.2.7.115, and 20.2.7.116; 20.2.37; 20.2.42; 20.2.43; 20.2.62; 20.2.63; 20.2.86; 20.2.89; and 20.2.90 NMAC. Federally enforceable means that EPA can enforce the regulation as well as the Air Quality Bureau and federally enforceable regulations can count toward determining a facility's potential to emit (PTE) for the Title V, PSD, and nonattainment permit regulations.

INCLUDE ANY OTHER INFORMATION NEEDED TO COMPLETE AN APPLICABILITY DETERMINATION OR THAT IS RELEVENT TO YOUR FACILITY'S NOTICE OF INTENT OR PERMIT.

EPA Applicability Determination Index for 40 CFR 60, 61, 63, etc: http://cfpub.epa.gov/adi/

Table for STATE REGULATIONS:

STATE REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.1 NMAC	General Provisions	Yes	Facility	General Provisions apply to Notice of Intent, Construction, and Title V permit applications.
20.2.3 NMAC	Ambient Air Quality Standards NMAAQS	No	N/A	As stated under 20.2.3.9 NMAC, this rule does not apply to Title V applications.
20.2.7 NMAC	Excess Emissions	Yes	Facility	All Title V major sources are subject to Air Quality Control Regulations, as defined in 20.2.7 NMAC, and are thus subject to the requirements of this regulation. Also listed as applicable in the NSR Permit.
20.2.23 NMAC	Fugitive Dust Control	No	N/A	This regulation may apply if, this is an application for a notice of intent (NOI) per 20.2.73 NMAC, if the activity or facility is a fugitive dust source listed at 20.2.23.108.A NMAC, **and** if the activity or facility is located in an area subject to a mitigation plan pursuant to 40 CFR 51.930. As the Huerfano Pump Station is a permitted facility and is located in San Juan County, 20.2.23 NMAC does not apply.
20.2.33 NMAC	Gas Burning Equipment - Nitrogen Dioxide	No	N/A	This regulation does not apply to internal combustion equipment such as engines. It only applies to external combustion equipment such as heaters or boilers. As this site does not include gas burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit, this regulation does not apply.
20.2.34 NMAC	Oil Burning Equipment: NO_2	No	N/A	This regulation does not apply to internal combustion equipment such as engines. It only applies to external combustion equipment such as heaters or boilers. Aa this site does not have oil burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit, this regulation does not apply.
20.2.35 NMAC	Natural Gas Processing Plant – Sulfur	No	N/A	This regulation could apply to existing (prior to July 1, 1974) or new (on or after July 1, 1974) natural gas processing plants that use a Sulfur Recovery Unit to reduce sulfur emissions. Not applicable as this site is not a natural gas processing plant.
20.2.37 and 20.2.36 NMAC	Petroleum Processing Facilities and Petroleum Refineries	N/A	N/A	These regulations were repealed by the Environmental Improvement Board. If you had equipment subject to 20.2.37 NMAC before the repeal, your combustion emission sources are now subject to 20.2.61 NMAC.
20.2.38 NMAC	Hydrocarbon Storage Facility	No	N/A	This facility does not store hydrocarbons containing hydrogen sulfide.
20.2.39 NMAC	Sulfur Recovery Plant - Sulfur	No	N/A	This facility is not a sulfur recovery plant, nor does it contain a sulfur recovery plant.
20.2.61.109 NMAC	Smoke & Visible Emissions	Yes	7b, 8, 9, 10, 11, 12a	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).
20.2.70 NMAC	Operating Permits	Yes	Facility	This site operates under Title V Permit number P-201-R3.
20.2.71 NMAC	Operating Permit Fees	Yes	Facility	This facility is subject to 20.2.70 NMAC and is in turn subject to 20.2.71 NMAC.
20.2.72 NMAC	Construction Permits	Yes	Facility	This facility operates under NSR Permit number 0888-M6R2.
20.2.73 NMAC	NOI & Emissions Inventory Requirements	Yes	Facility	All facilities that are a Title V Major Source as defined at 20.2.70.7.R NMAC, are subject to Emissions Inventory Reporting.

STATE REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.74 NMAC	Permits – Prevention of Significant Deterioration (PSD)	No	N/A	This facility is not a PSD major source.
20.2.75 NMAC	Construction Permit Fees	No	N/A	As this Title V renewal application is being submitted under 20.2.70 NMAC, construction permit fees do not apply.
20.2.77 NMAC	New Source Performance	Yes	8, 9, 10, 11, 12a	This is a stationary source which is subject to the requirements of 40 CFR Part 60.
20.2.78 NMAC	Emission Standards for HAPS	No	N/A	This facility is not subject to the requirements of 40 CFR Part 61.
20.2.79 NMAC	Permits – Nonattainment Areas	No	N/A	This facility is not located in a non-attainment area.
20.2.80 NMAC	Stack Heights	No	N/A	Not applicable as this is a Title V application.
20.2.82 NMAC	MACT Standards for source categories of HAPS	Yes	12a	Unit 7a is not subject to MACT HH because the site is not a "Facility" as defined in §63.761. Unit 12a must comply with Subpart ZZZZ by meeting the requirements of NSPS JJJJ as stated under §63.6590(c)(1).

Table for FEDERAL REGULATIONS:

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 50	NAAQS	Yes	Facility	This applies if you are subject to 20.2.70, 20.2.72, 20.2.74, and/or 20.2.79 NMAC.
NSPS 40 CFR 60, Subpart A	General Provisions	Yes	8-12a	Applies if any other Subpart in 40 CFR 60 applies.
NSPS 40 CFR60.40a, Subpart Da	Subpart Da, Performance Standards for **Electric Utility Steam Generating Units**	No	N/A	Not applicable as the site does not have any electric utility steam generating units.
NSPS 40 CFR60.40b Subpart Db	**Electric Utility Steam Generating Units**	No	N/A	Not applicable as the site does not have any electric utility steam generating units.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 60.40c, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	No	N/A	Not applicable as this facility does not have steam generating units for which construction, modification or reconstruction is commenced after June 9, 1989 and that have a maximum design heat input capacity of 29 MW (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).
NSPS 40 CFR 60, Subpart Ka	Standards of Performance for **Storage Vessels for Petroleum Liquids** for which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and **Prior** to July 23, 1984	No	N/A	The tanks at this site have storage capacities less than the applicable volumes listed under this subpart.
NSPS 40 CFR 60, Subpart Kb	Standards of Performance for **Volatile Organic Liquid Storage Vessels** (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced **After** July 23, 1984	No	N/A	The tanks at this site have storage capacities less than the applicable volumes listed under this subpart.
NSPS 40 CFR 60.330 Subpart GG	**Stationary Gas Turbines**	No	N/A	Turbines 8-11 were constructed/modified/reconstructed after February 18, 2005 and are therefore subject to NSPS KKKK.
NSPS 40 CFR 60, Subpart KKK	Leaks of VOC from **Onshore Gas Plants**	No	N/A	This site is not an onshore gas plant as defined by this regulation.
NSPS 40 CFR Part 60 Subpart LLL	Standards of Performance for **Onshore Natural Gas Processing**: SO_2 Emissions	No	N/A	This site is not a natural gas processing plant as defined by this regulation.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
NSPS 40 CFR Part 60 Subpart OOOO	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	No	N/A	This site does not include any "affected" facilities that were constructed, modified, or reconstructed after Aug 23, 2011 and before September 18, 2015.
NSPS 40 CFR Part 60 Subpart OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015	No	N/A	This site does not include any "affected" facilities that were constructed, modified, or reconstructed after September 18, 2015.
NSPS 40 CFR 60 Subpart IIII	Standards of performance for Stationary Compression Ignition Internal Combustion Engines	No	N/A	Not applicable as there are no CI engines at this facility.
NSPS 40 CFR Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Yes	12a	The listed engine must comply with Subpart JJJJ.
NSPS 40 CFR Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines	Yes	8-11	Turbines 8-11 were constructed/modified/reconstructed after February 18, 2005 and are therefore subject to NSPS KKKK.
NSPS 40 CFR 60 Subpart TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	No	N/A	Not applicable as there are not any electric generating units at this site.
NSPS 40 CFR 60 Subpart UUUU	Emissions Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units	No	N/A	Not applicable as there are not any electric utility generating units at this site.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
NSPS 40 CFR 60, Subparts WWW, XXX, Cc, and Cf	Standards of performance for Municipal Solid Waste (MSW) Landfills	No	N/A	Not applicable as this site is not a MSW Landfill.
NESHAP 40 CFR 61 Subpart A	General Provisions	No	N/A	Not applicable as no other Subpart in 40 CFR 61 applies.
NESHAP 40 CFR 61 Subpart E	National Emission Standards for **Mercury**	No	N/A	Not applicable as there are no stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge.
NESHAP 40 CFR 61 Subpart V	National Emission Standards for **Equipment Leaks** (Fugitive Emission Sources)	No	N/A	The site does not have any equipment in VHAP service (≥10% VHAP).
MACT 40 CFR 63, Subpart A	General Provisions	Yes	12a	Applies as Subpart ZZZZ applies.
MACT 40 CFR 63.760 Subpart HH	**Oil and Natural Gas Production Facilities**	No	N/A	Unit 7a is not subject to MACT HH because the site is not a "Facility" as defined in §63.761.
MACT 40 CFR 63 Subpart HHH	National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities	No	N/A	Not applicable as this site is not a natural gas transmission and storage facility that transports or store natural gas prior to entering the pipeline to a local distribution company or to a final end user.
MACT 40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Industrial, Commercial, and Institutional Boilers & Process Heaters	No	N/A	Not applicable as Unit 7b is not located at a major source of HAPs.
MACT 40 CFR 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants Coal & Oil Fire Electric Utility Steam Generating Unit	No	N/A	Not applicable as there are not any electric utility steam generating units at this site.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
MACT 40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (**RICE MACT**)	Yes	12a	Unit 12a must comply with Subpart ZZZZ by meeting the requirements of NSPS JJJJ as stated under §63.6590(c)(1).
40 CFR 64	**Compliance Assurance Monitoring**	No	N/A	Not applicable as the site does not include an emissions unit that is major in and of itself.
40 CFR 68	**Chemical Accident Prevention**	No	N/A	This facility does not have more than a threshold quantity of a regulated substance subject to this regulation.
Title IV – Acid Rain 40 CFR 72	**Acid Rain**	No	N/A	This site does not meet the applicability requirements of 40 CFR 72.6.
Title IV – Acid Rain 40 CFR 73	**Sulfur Dioxide** Allowance Emissions	No	N/A	Does not apply as this facility does not generate commercial electric power or electric power for sale.
Title IV-Acid Rain 40 CFR 75	**Continuous Emissions Monitoring**	No	N/A	Not applicable as this facility does not generate commercial electric power or electric power for sale.
Title IV – Acid Rain 40 CFR 76	**Acid Rain** Nitrogen Oxides **Emission Reduction Program**	No	N/A	This site does not meet the applicability requirements of 40 CFR 76.1, nor does it include any coal-fired utility units.
Title VI – 40 CFR 82	Protection of **Stratospheric Ozone**	No	N/A	Not Applicable –facility does not “service”, “maintain” or “repair” class I or class II appliances nor “disposes” of the appliances.

Section 14

Operational Plan to Mitigate Emissions

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

☑ **Title V Sources** (20.2.70 NMAC)**:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Emissions During Startups, Shutdowns, and Emergencies** defining the measures to be taken to mitigate source emissions during startups, shutdowns, and emergencies as required by 20.2.70.300.D.5(f) and (g) NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☐ **NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Source Emissions During Malfunction, Startup, or Shutdown** defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown as required by 20.2.72.203.A.5 NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☑ **Title V** (20.2.70 NMAC)**, NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has established and implemented a Plan to Minimize Emissions During Routine or Predictable Startup, Shutdown, and Scheduled Maintenance through work practice standards and good air pollution control practices as required by 20.2.7.14.A and B NMAC. This plan shall be kept on site or at the nearest field office to be made available to the Department upon request. This plan should not be submitted with this application.

Enterprise maintains the required plans to mitigate emissions during routine or predicable SSM and malfunction events at the nearest field office.

Section 15

Alternative Operating Scenarios

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Alternative Operating Scenarios: Provide all information required by the department to define alternative operating scenarios. This includes process, material and product changes; facility emissions information; air pollution control equipment requirements; any applicable requirements; monitoring, recordkeeping, and reporting requirements; and compliance certification requirements. Please ensure applicable Tables in this application are clearly marked to show alternative operating scenario.

Construction Scenarios: When a permit is modified authorizing new construction to an existing facility, NMED includes a condition to clearly address which permit condition(s) (from the previous permit and the new permit) govern during the interval between the date of issuance of the modification permit and the completion of construction of the modification(s). There are many possible variables that need to be addressed such as: Is simultaneous operation of the old and new units permitted and, if so for example, for how long and under what restraints? In general, these types of requirements will be addressed in Section A100 of the permit, but additional requirements may be added elsewhere. Look in A100 of our NSR and/or TV permit template for sample language dealing with these requirements. Find these permit templates at: https://www.env.nm.gov/aqb/permit/aqb_pol.html. Compliance with standards must be maintained during construction, which should not usually be a problem unless simultaneous operation of old and new equipment is requested.

In this section, under the bolded title "Construction Scenarios", specify any information necessary to write these conditions, such as: conservative-realistic estimated time for completion of construction of the various units, whether simultaneous operation of old and new units is being requested (and, if so, modeled), whether the old units will be removed or decommissioned, any PSD ramifications, any temporary limits requested during phased construction, whether any increase in emissions is being requested as SSM emissions or will instead be handled as a separate Construction Scenario (with corresponding emission limits and conditions, etc.

No alternative operating scenarios are being requested in this application.

Section 16

Air Dispersion Modeling

1) Minor Source Construction (20.2.72 NMAC) and Prevention of Significant Deterioration (PSD) (20.2.74 NMAC) ambient impact analysis (modeling): Provide an ambient impact analysis as required at 20.2.72.203.A(4) and/or 20.2.74.303 NMAC and as outlined in the Air Quality Bureau's Dispersion Modeling Guidelines found on the Planning Section's modeling website. If air dispersion modeling has been waived for one or more pollutants, attach the AQB Modeling Section modeling waiver approval documentation.
2) SSM Modeling: Applicants must conduct dispersion modeling for the total short term emissions during routine or predictable startup, shutdown, or maintenance (SSM) using realistic worst case scenarios following guidance from the Air Quality Bureau's dispersion modeling section. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions modeling requirements.
3) Title V (20.2.70 NMAC) ambient impact analysis: Title V applications must specify the construction permit and/or Title V Permit number(s) for which air quality dispersion modeling was last approved. Facilities that have only a Title V permit, such as landfills and air curtain incinerators, are subject to the same modeling required for preconstruction permits required by 20.2.72 and 20.2.74 NMAC.

What is the purpose of this application?	Enter an X for each purpose that applies
New PSD major source or PSD major modification (20.2.74 NMAC). See #1 above.	
New Minor Source or significant permit revision under 20.2.72 NMAC (20.2.72.219.D NMAC). See #1 above. **Note:** Neither modeling nor a modeling waiver is required for VOC emissions.	
Reporting existing pollutants that were not previously reported.	
Reporting existing pollutants where the ambient impact is being addressed for the first time.	
Title V application (new, renewal, significant, or minor modification. 20.2.70 NMAC). See #3 above.	X
Relocation (20.2.72.202.B.4 or 72.202.D.3.c NMAC)	
Minor Source Technical Permit Revision 20.2.72.219.B.1.d.vi NMAC for like-kind unit replacements.	
Other: i.e. SSM modeling. See #2 above.	
This application does not require modeling since this is a No Permit Required (NPR) application.	
This application does not require modeling since this is a Notice of Intent (NOI) application (20.2.73 NMAC).	
This application does not require modeling according to 20.2.70.7.E(11), 20.2.72.203.A(4), 20.2.74.303, 20.2.79.109.D NMAC and in accordance with the Air Quality Bureau's Modeling Guidelines.	

Check each box that applies:

☐ See attached, approved modeling **waiver for all** pollutants from the facility.
☐ See attached, approved modeling **waiver for some** pollutants from the facility.
☐ Attached in Universal Application Form 4 (UA4) is a **modeling report for all** pollutants from the facility.
☐ Attached in UA4 is a **modeling report for some** pollutants from the facility.
☑ No modeling is required.

Air dispersion modeling is not required for this application as it is for a Title V permit renewal. Air dispersion modeling has been submitted within NSR permit (Permit No. 0888) applications in the past.

Section 17

Compliance Test History

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Compliance Test History Table

Unit No.	Test Description	Test Date
10	NSPS KKKK Periodic Test	8/24/2012
8	NSPS KKKK Periodic Test	3/29/2012
11	NSPS KKKK Initial Test (swapped for like-kind turbine)	8/2/2011
8 & 9	NSPS KKKK Periodic Test	4/21/2011
10	NSPS KKKK Periodic Test	8/24/2010
8 & 9	NSPS KKKK Periodic Test	4/22/2009
8 & 9	NSPS KKKK Periodic Test	3/6 & 7/2008
11	NSPS KKKK Periodic Test	10/23/2007
8 & 9	NSPS KKKK Periodic Test	3/6/2007
9 & 11	NSPS KKKK Periodic Test	4/23/2013
8 & 10	Portable Analyzer Testing	4/23/2013
9 & 11	Portable Analyzer Testing	4/1/2014
8 & 10	NSPS KKKK Periodic Test	4/2/2014
9 & 11	NSPS KKKK Periodic Test	4/6 & 4/7/2015
8 & 10	Portable Analyzer Testing	4/6 & 4/7/2015
8, 9, 10, 11	NSPS KKKK Periodic Test and Portable Analyzer Testing	4/7/2016
8, 9, 10, 11	NSPS KKKK Periodic Test and Portable Analyzer Testing	4/4/2017
8, 9, 10, 11	NSPS KKKK Periodic Test and Portable Analyzer Testing	4/4/2018
8, 9, 10, 11	NSPS KKKK Periodic Test and Portable Analyzer Testing	4/2/2019
8, 9, 10, 11	NSPS KKKK Periodic Test and Portable Analyzer Testing	6/30/2020
8, 9, 10, 11	NSPS KKKK Periodic Test and Portable Analyzer Testing	5/26/2021

Section 18

Addendum for Streamline Applications

Do not print this section unless this is a streamline application.

Not applicable as this is not a Streamline application.

Section 19

Requirements for Title V Program

Do not print this section unless this is a Title V application.

Who Must Use this Attachment:

* Any major source as defined in 20.2.70 NMAC.
* Any source, including an area source, subject to a standard or other requirement promulgated under Section 111 - Standards of Performance for New Stationary Sources, or Section 112 Hazardous Air Pollutants, of the 1990 federal Clean Air Act ("federal Act"). Non-major sources subject to Sections 111 or 112 of the federal Act are exempt from the obligation to obtain an 20.2.70 NMAC operating permit until such time that the EPA Administrator completes rulemakings that require such sources to obtain operating permits. In addition, sources that would be required to obtain an operating permit solely because they are subject to regulations or requirements under Section 112(r) of the federal Act are exempt from the requirement to obtain an Operating Permit.
* Any Acid Rain source as defined under title IV of the federal Act. The Acid Rain program has additional forms. See http://www.env.nm.gov/aqb/index.html. Sources that are subject to both the Title V and Acid Rain regulations are encouraged to submit both applications simultaneously.
* Any source in a source category designated by the EPA Administrator ("Administrator"), in whole or in part, by regulation, after notice and comment.

19.1 - 40 CFR 64, Compliance Assurance Monitoring (CAM) (20.2.70.300.D.10.e NMAC)

Any source subject to 40CFR, Part 64 (Compliance Assurance Monitoring) must submit all the information required by section 64.7 with the operating permit application. The applicant must prepare a separate section of the application package for this purpose; if the information is already listed elsewhere in the application package, make reference to that location. Facilities not subject to Part 64 are invited to submit periodic monitoring protocols with the application to help the AQB to comply with 20.2.70 NMAC. Sources subject to 40 CFR Part 64, must submit a statement indicating your source's compliance status with any enhanced monitoring and compliance certification requirements of the federal Act.

This site does not include any emission source that is major source in and of itself; therefore, 40 CFR Part 64 does not apply.

19.2 - Compliance Status (20.2.70.300.D.10.a & 10.b NMAC)

Describe the facility's compliance status with each applicable requirement at the time this permit application is submitted. This statement should include descriptions of or references to all methods used for determining compliance. This statement should include descriptions of monitoring, recordkeeping and reporting requirements and test methods used to determine compliance with all applicable requirements. Refer to Section 2, Tables 2-N and 2-O of the Application Form as necessary. (20.2.70.300.D.11 NMAC) For facilities with existing Title V permits, refer to most recent Compliance Certification for existing requirements. Address new requirements such as CAM, here, including steps being taken to achieve compliance.

MAPL/Enterprise is in compliance and will continue to be in compliance with the requirements of the Title V permit. Title V Permit Compliance Certifications have been submitted, as required.

19.3 - Continued Compliance (20.2.70.300.D.10.c NMAC)

Provide a statement that your facility will continue to be in compliance with requirements for which it is in compliance at the time of permit application. This statement must also include a commitment to comply with other applicable requirements as they come into effect during the permit term. This compliance must occur in a timely manner or be consistent with such schedule expressly required by the applicable requirement.

MAPL/Enterprise is in compliance and will continue to be in compliance with the requirements of the Title V permit. Furthermore, MAPL/Enterprise has made a commitment to the personnel and resources to comply with other applicable requirements as they come into effect during the permit term. This compliance will occur in a timely manner and/or be consistent with such schedule expressly required by the applicable requirement.

19.4 - Schedule for Submission of Compliance (20.2.70.300.D.10.d NMAC)

You must provide a proposed schedule for submission to the department of compliance certifications during the permit term. This certification must be submitted annually unless the applicable requirement or the department specifies a more frequent period. A sample form for these certifications will be attached to the permit.

MAPL/Enterprise will submit the ACC to NMED by October 30 of each year, which is 30 days from the end of the 12-month reporting period (September 30.) MAPL/Enterprise will submit semiannual reports (SAR) by May 15 and November 14 of each year, which is 45 days from the end of the reporting period (March 31 and September 30).

19.5 - Stratospheric Ozone and Climate Protection

In addition to completing the four (4) questions below, you must submit a statement indicating your source's compliance status with requirements of Title VI, Section 608 (National Recycling and Emissions Reduction Program) and Section 609 (Servicing of Motor Vehicle Air Conditioners).

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1. Does your facility have any air conditioners or refrigeration equipment that uses CFCs, HCFCs or other ozone-depleting substances? ☑ **Yes** ☐ **No**

2. Does any air conditioner(s) or any piece(s) of refrigeration equipment contain a refrigeration charge greater than 50 lbs? ☐ **Yes** ☑ **No**

   (If the answer is yes, describe the type of equipment and how many units are at the facility.)

3. Do your facility personnel maintain, service, repair, or dispose of any motor vehicle air conditioners (MVACs) or appliances ("appliance" and "MVAC" as defined at 82. 152)? ☐ **Yes** ☑ **No**

4. Cite and describe which Title VI requirements are applicable to your facility (i.e. 40 CFR Part 82, Subpart A through G.)

MAPL/Enterprise uses only certified technicians (§82.161(a)) to service air conditioners or appliances containing Class I or Class II refrigerants. If required, these technicians will use certified recovery devices per §82.156(b).

19.6 - Compliance Plan and Schedule

Applications for sources, which are not in compliance with all applicable requirements at the time the permit application is submitted to the department, must include a proposed compliance plan as part of the permit application package. This plan shall include the information requested below:

A. Description of Compliance Status: (20.2.70.300.D.11.a NMAC)
A narrative description of your facility's compliance status with respect to all applicable requirements (as defined in 20.2.70 NMAC) at the time this permit application is submitted to the department.

B. Compliance plan: (20.2.70.300.D.11.B NMAC)
A narrative description of the means by which your facility will achieve compliance with applicable requirements with which it is not in compliance at the time you submit your permit application package.

C. Compliance schedule: (20.2.70.300D.11.c NMAC)
A schedule of remedial measures that you plan to take, including an enforceable sequence of actions with milestones, which will lead to compliance with all applicable requirements for your source. This schedule of compliance must be at least as stringent as that contained in any consent decree or administrative order to which your source is subject. The obligations of any consent decree or administrative order are not in any way diminished by the schedule of compliance.

D. Schedule of Certified Progress Reports: (20.2.70.300.D.11.d NMAC)
A proposed schedule for submission to the department of certified progress reports must also be included in the compliance schedule. The proposed schedule must call for these reports to be submitted at least every six (6) months.

E. Acid Rain Sources: (20.2.70.300.D.11.e NMAC)
If your source is an acid rain source as defined by EPA, the following applies to you. For the portion of your acid rain source subject to the acid rain provisions of title IV of the federal Act, the compliance plan must also include any additional requirements under the acid rain provisions of title IV of the federal Act. Some requirements of title IV regarding the schedule and methods the source will use to achieve compliance with the acid rain emissions limitations may supersede the requirements of title V and 20.2.70 NMAC. You will need to consult with the Air Quality Bureau permitting staff concerning how to properly meet this requirement.

NOTE: The Acid Rain program has additional forms. See http://www.env.nm.gov/aqb/index.html. Sources that are subject to both the Title V and Acid Rain regulations are **encouraged** to submit both applications **simultaneously**.

As described in Section 19.2, MAPL/Enterprise is currently in compliance with the applicable requirements of the Title V permit; therefore, no compliance schedule is necessary at this time.

19.7 - 112(r) Risk Management Plan (RMP)

Any major sources subject to section 112(r) of the Clean Air Act must list all substances that cause the source to be subject to section 112(r) in the application. The permittee must state when the RMP was submitted to and approved by EPA.

The definition of a stationary source (§68.3) does not apply to transportation, including storage incident to transportation, of any substance or any other extremely hazardous substance under the provisions of this part. Naturally occurring hydrocarbon mixtures, prior to entry into a natural gas processing plant or a petroleum refining process unit, including: condensate, crude oil, field gas, and produced water, are exempt for the purpose of determining whether more than a threshold quantity of a regulated substance is present at the stationary source. Therefore, the facility is not subject to the provisions for 112(r).

19.8 - Distance to Other States, Bernalillo, Indian Tribes and Pueblos

Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B NMAC)?

(If the answer is yes, state which apply and provide the distances.)

Yes. The distances are as follows:

- Colorado – 58 km
- Navajo Nation – 32 km

19.9 - Responsible Official

Provide the Responsible Official as defined in 20.2.70.7.AD NMAC:

Graham W. Bacon - Executive Vice President-EHS&T

Section 20

Other Relevant Information

Other relevant information. Use this attachment to clarify any part in the application that you think needs explaining. Reference the section, table, column, and/or field. Include any additional text, tables, calculations or clarifying information.

Additionally, the applicant may propose specific permit language for AQB consideration. In the case of a revision to an existing permit, the applicant should provide the old language and the new language in track changes format to highlight the proposed changes. If proposing language for a new facility or language for a new unit, submit the proposed operating condition(s), along with the associated monitoring, recordkeeping, and reporting conditions. In either case, please limit the proposed language to the affected portion of the permit.

No other relevant information is being submitted with this application.

Section 21

Addendum for Landfill Applications

Do not print this section unless this is a landfill application.

Not applicable as this is not a landfill application.

Section 22: Certification

Company Name: Mid-America Pipeline Company, LLC

I, Ivan W. Zirbes, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this _____ day of _____, _____, upon my oath or affirmation, before a notary of the State of

_____.

_____ _____
*Signature Date

Ivan W. Zirbes Vice President
Printed Name Title

Scribed and sworn before me on this _____ day of _____, _____.

My authorization as a notary of the State of _____ expires on the

_____ day of _____, _____.

_____ _____
Notary's Signature Date

_____
Notary's Printed Name

*For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE NMAC.