

**From:** [Randy Ammons](#)  
**To:** [Ramiro Garcia](#)  
**Cc:** [Susan Johnson](#); [Tracy Miller](#); [Jayme Sadlier](#)  
**Subject:** FW: Enforcement Discretion Request  
**Date:** Friday, March 20, 2020 3:50:36 PM

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Below is the email response I sent to Mr. Hancock today.

Thanks

Randy

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**From:** Randy Ammons  
**Sent:** Friday, March 20, 2020 2:21 PM  
**To:** Jansen Hancock <[REDACTED]>  
**Subject:** RE: Enforcement Discretion Request

Good afternoon Mr. Hancock,

The TCEQ has received your request for enforcement discretion on all LDAR activities for the month of April. At this time, your request is denied, however, we are willing to reassess your request at end of April. If necessary, please re-submit your request to [OCE@tceq.texas.gov](mailto:OCE@tceq.texas.gov) and [Ramiro.garcia@tceq.texas.gov](mailto:Ramiro.garcia@tceq.texas.gov) at the end of next month and please be as specific as possible as to what conditions of the permit that enforcement discretion is being requested.

Please remember that while the TCEQ may give enforcement discretion for state rules, the EPA may still take action if violations of federal rules are documented.

The TCEQ is committed to working with you as we respond to the COVID-19 pandemic. If you have any questions or new information, please feel free to contact us at any time.

Regards,

Randy J. Ammons, Area Director  
North Central and West Texas Area

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**From:** Jansen Hancock <[REDACTED]>  
**Sent:** Thursday, March 19, 2020 6:39 PM  
**To:** Ramiro Garcia <[ramiro.garcia@tceq.texas.gov](mailto:ramiro.garcia@tceq.texas.gov)>  
**Cc:** OCE <[OCE@tceq.texas.gov](mailto:OCE@tceq.texas.gov)>; Randy Ammons <[randy.ammons@tceq.texas.gov](mailto:randy.ammons@tceq.texas.gov)>; David Durst <[david.durst@tceq.texas.gov](mailto:david.durst@tceq.texas.gov)>; Tracy Miller <[tracy.miller@tceq.texas.gov](mailto:tracy.miller@tceq.texas.gov)>; Susan Johnson <[susan.johnson@tceq.texas.gov](mailto:susan.johnson@tceq.texas.gov)>; Jayme Sadlier <[jayme.sadlier@tceq.texas.gov](mailto:jayme.sadlier@tceq.texas.gov)>; Monica Aplin <[Monica.Aplin@tceq.texas.gov](mailto:Monica.Aplin@tceq.texas.gov)>; Jacqueline Cullather <[Jacqueline.Cullather@tceq.texas.gov](mailto:Jacqueline.Cullather@tceq.texas.gov)>  
**Subject:** Re: Enforcement Discretion Request

Great. Thank you, Ramiro. I do have an update to this request. I was able to move our scheduled LDAR testing up to tomorrow, March, 20th. The panhandle doesn't have a lot of confirmed cases yet, so we feel comfortable having this completed tomorrow. This means we are only requesting enforcement discretion on all LDAR activities for the month of April. Thanks again for your consideration.

Jansen Hancock

Sent from my iPhone

On Mar 19, 2020, at 6:15 PM, Ramiro Garcia <[ramiro.garcia@tceq.texas.gov](mailto:ramiro.garcia@tceq.texas.gov)> wrote:

EXTERNAL-EMAIL

Good afternoon Mr. Hancock

This email confirms receipt of your correspondence. We are reviewing your request and expect to have a reply to you soon.

Sincerely,

Ramiro Garcia, Jr.  
Deputy  
Office of Compliance & Enforcement  
TCEQ

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**From:** Jansen Hancock <[REDACTED]>  
**Sent:** Thursday, March 19, 2020 11:00 AM  
**To:** OCE <[OCE@tceq.texas.gov](mailto:OCE@tceq.texas.gov)>; Ramiro Garcia <[ramiro.garcia@tceq.texas.gov](mailto:ramiro.garcia@tceq.texas.gov)>  
**Subject:** Enforcement Discretion Request

Good morning,  
Pampa Fuels (Permit Number 105050) is requesting enforcement discretion on all LDAR testing for the months of March and April, specifically Special Conditions 18, 19, & 20 of the attached permit. Pampa Fuels is a small facility, and all LDAR testing is conducted through third party contractors. In an effort to limit exposure to the Coronavirus, Pampa Fuels has limited all employees, visitors and contractors to essential personnel only. Pampa Fuels is a small facility (Not Title V) with an excellent LDAR history. LDAR results for the previous two years is shown below. Thanks for your consideration.

<image002.png>

<image003.png>

<image004.png>

<image005.png>

Best Regards,

*Jansen Hancock*

Quality Control/Environmental Manager

Office: 806.370.7652

Cell: 806.663.2262

<image006.png>

8201 FM 2300

PO Box 941

Pampa, TX 79066

**CAUTION:** This email originated from outside of G2X Energy, Inc. Do not click links or open attachments unless you recognize the sender and know the content is safe.

**From:** [Jansen Hancock](#)  
**To:** [OCE](#); [Ramiro Garcia](#)  
**Subject:** Enforcement Discretion Request  
**Date:** Thursday, March 19, 2020 11:00:05 AM  
**Attachments:** [image001.png](#)  
[image003.png](#)  
[image005.png](#)  
[image012.png](#)  
[image013.png](#)  
[PAMPA FUEL Permit105050 ID604202-1 Project278801 Conditions.pdf](#)

Good morning,

Pampa Fuels (Permit Number 105050) is requesting enforcement discretion on all LDAR testing for the months of March and April, specifically Special Conditions 18, 19, & 20 of the attached permit. Pampa Fuels is a small facility, and all LDAR testing is conducted through third party contractors. In an effort to limit exposure to the Coronavirus, Pampa Fuels has limited all employees, visitors and contractors to essential personnel only. Pampa Fuels is a small facility (Not Title V) with an excellent LDAR history. LDAR results for the previous two years is shown below. Thanks for your consideration.

[illegible]

Period	Year	Valve Leaks	Valves Not Repaired in 15 Days	Pump Leaks	Pumps Not Repaired in 15 Days	Compressor Leaks	Compressors Not Repaired in 15 Days	Relief Valve Leaks	Relief Valves Not Repaired in 15 Days	Connector Leaks	Connectors Not Repaired in 15 Days
January	2019	0	0	0	0	0	0	0	0	0	0
February	2019	0	0	0	0	0	0	0	0	0	0
March	2019	2	0	0	0	0	0	0	0	0	0
April	2019	0	0	0	0	0	0	0	0	0	0
May	2019	0	0	0	0	0	0	0	0	0	0
June	2019	1	0	0	0	0	0	0	0	0	0
<b>Totals</b>		<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Process area shutdowns occurring during reporting period:

Area Shutdown	Start Date	End Date
Pampa Fuels, LLC	5/1/2019	1/26/2019
Pampa Fuels, LLC	2/6/2019	2/6/2019
Pampa Fuels, LLC	2/14/2019	3/1/2019
Pampa Fuels, LLC	3/1/2019	3/11/2019
Pampa Fuels, LLC	3/13/2019	3/14/2019
Pampa Fuels, LLC	4/1/2019	4/1/2019
Pampa Fuels, LLC	4/18/2019	4/19/2019
Pampa Fuels, LLC	5/7/2019	5/7/2019
Pampa Fuels, LLC	5/28/2019	5/28/2019
Pampa Fuels, LLC	5/31/2019	5/31/2019

Revisions To Master Equipment Summary:

Component Type	Added	Removed
Valves:	9	0
Pumps:	0	0
Pressure Relief Valves:	0	0
Connectors:	29	0
Compressors:	0	0

Delay of Repair Items

Tag #	Location	Equip. Type	Date Leak Detected	Date Repaired	Currently on SD?	Reason for Delay	Date Placed on SD	Exp. Rep Date
None during this time period.								

Previous DOR Items: None

Period	Year	Valve Leaks	Valves Not Repaired in 15 Days	Pump Leaks	Pumps Not Repaired in 15 Days	Compressor Leaks	Compressors Not Repaired in 15 Days	Relief Valve Leaks	Relief Valves Not Repaired in 15 Days	Connector Leaks	Connectors Not Repaired in 15 Days
July	2018	0	0	0	0	0	0	0	0	0	0
August	2018	0	0	0	0	0	0	0	0	0	0
September	2018	1	0	0	0	0	0	0	0	2	0
October	2018	0	0	0	0	0	0	0	0	0	0
November	2018	0	0	0	0	0	0	0	0	0	0
December	2018	3	0	0	0	0	0	0	0	0	0
<b>Totals</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>

Process area shutdowns occurring during reporting period:

Area Shutdown	Start Date	End Date
Plant Wide	8/22/2018	8/24/2018
Plant Wide	8/25/2018	8/28/2018
Plant Wide	9/27/2018	11/2/2018
Plant Wide	11/25/2018	11/25/2018
Plant Wide	12/15/2018	12/16/2018
Plant Wide	12/28/2018	-

Revisions To Master Equipment Summary:

Component Type	Added	Removed
Valves:	0	1
Pumps:	0	0
Pressure Relief Valves:	0	0
Connectors:	0	5
Compressors:	0	0

Delay of Repair Items

Tag #	Location	Equip. Type	Date Leak Detected	Date Repaired	Currently on SD?	Reason for Delay	Date Placed on SD	Exp. Rep Date
None during this time period.								

Previous DOR Items: None

Period	Year	Valve Leaks	Valves Not Repaired in 15 Days	Pump Leaks	Pumps Not Repaired in 15 Days	Compressor Leaks	Compressors Not Repaired in 15 Days	Relief Valve Leaks	Relief Valves Not Repaired in 15 Days	Connector Leaks	Connectors Not Repaired in 15 Days
January	2018	0	0	0	0	0	0	0	0	0	0
February	2018	0	0	0	0	0	0	0	0	0	0
March	2018	0	0	0	0	0	0	0	0	0	0
April	2018	0	0	0	0	0	0	0	0	0	0
May	2018	0	0	0	0	0	0	0	0	0	0
June	2018	0	0	0	0	0	0	0	0	0	0
Totals		0	0	0	0	0	0	0	0	0	0
Process area shutdowns occurring during reporting period:											
Area Shutdown			Start Date		End Date						
Pampa Fuels, LLC			2/6/2018		2/8/2018						
Pampa Fuels, LLC			3/4/2018		3/5/2018						
Pampa Fuels, LLC			3/11/2018		3/15/2018						
Pampa Fuels, LLC			4/13/2018		4/14/2018						
Pampa Fuels, LLC			5/5/2018		5/5/2018						
Pampa Fuels, LLC			5/24/2018		5/25/2018						
Pampa Fuels, LLC			6/7/2018		6/7/2018						
Pampa Fuels, LLC			6/20/2018		6/20/18						
Pampa Fuels, LLC			6/22/2018		6/22/2018						
Revisions To Master Equipment Summary:											
		Component Type	Added	Removed							
		Valves:	0	0							
		Pumps:	0	0							
		Pressure Relief Valves:	0	0							
		Connectors:	0	0							
		Compressors:	0	0							
Delay of Repair Items											
Tag #	Location			Equip. Type	Date Leak Detected	Date Repaired	Currently on SD?	Reason for Delay	Date Placed on SD	Exp. Rep Date	
None during this time period.											
Previous DOR Items:											
39700-000	G-03 E Side of V-531			Valve	6/22/2017	3/29/2018	No	USD	7/3/2017	4/30/2018	

Best Regards,

*Jansen Hancock*

Quality Control/Environmental Manager

Office: 806.370.7652

Cell: 806.663.2262

**PAMPAFUELS**

8201 FM 2300

PO Box 941

Pampa, TX 79066

## **Special Conditions**

Permit Number 105050

### **Emission Limitations**

1. This permit authorizes operation of a methanol production facility located at 8201 FM 2300, Pampa, Gray County, Texas.

This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.

2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions. **(03/17)**

### **Federal Applicability**

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):
  - A. Subpart A, General Provisions.
  - B. Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
  - C. 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.
  - D. Subpart VVa, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006.
  - E. Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.
  - F. Subpart RRR, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.
4. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:
  - A. Subpart A, General Provisions.
  - B. Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
5. If any condition of this permit is more stringent than the applicable regulations in Special Condition Nos. 3 and 4, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

### Emission Standards and Operational Specifications

6. Steam Methane Reformer (Emission Point Number (EPN) F-501) shall be fired with natural gas or fuel gas containing no more than 0.20 grains of total sulfur per 100 dry standard cubic feet (dscf).
7. Package Boiler (EPN B-601) shall be fired with natural gas containing no more than 0.20 grains of total sulfur per 100 dscf.
8. The natural gas shall be sampled every 6 months to determine total sulfur and net heating value. Test results from the fuel supplier may be used to satisfy this requirement.
9. The permit holder shall install and operate totalizing fuel flow meters to measure the gas fuel usage for the Steam Methane Reformer and the package boiler and fuel usage for each shall be recorded monthly. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 5 percent.

Quality assured (or valid) data must be generated when the Steam Methane Reformer or boiler is operating. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Steam Methane Reformer or boiler operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

10. NO<sub>x</sub> and CO emissions from the Steam Methane Reformer (EPN F-501) shall not exceed the following:
  - 0.035 lb NO<sub>x</sub>/MMBtu on an hourly average
  - 50 ppmvd CO corrected to 3 percent oxygen on an hourly average.
11. NO<sub>x</sub> and CO emissions from the Package Boiler (EPN B-601) shall not exceed the following:
  - 0.013 lb NO<sub>x</sub>/MMBtu on an hourly average
  - 50 ppmvd CO corrected to 3 percent oxygen on an hourly average.
12. The Firewater Pumps and Emergency Diesel Generators (EPNs FWP-1, FWP-2, FWP-3, and EGEN-1) are authorized to fire diesel fuel containing no more than 0.05 weight percent sulfur. The Firewater Pumps are each limited to a maximum of 26 non-emergency hours of operation annually. The Emergency Diesel Generator is limited to a maximum of 50 non-emergency hours of operation annually.
13. Accumulators V-304A and V-304B service is limited to storing crude methanol. Tanks T-314A, T-314B, and T-324 are limited to storing refined or product methanol. Accumulators V-304A and V-304B shall be vented to the flare (EPN F-305) for control of emissions. Tanks T-314A, T-314B, and T-324 shall be fitted with internal floating roofs for the control of emissions. **(7/14)**

Storage tanks are subject to the following requirements. The control requirements specified in paragraphs A-D of this condition shall not apply (1) where the VOC has an aggregate partial



pressure of less than 0.50 psia at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.

- A. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.
  - B. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.
  - C. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and seal gap measurements as specified in 40 CFR § 60.113b Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) to verify fitting and seal integrity. Records shall be maintained of the dates seals were inspected and seal gap measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.
  - D. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
  - E. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
  - F. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.
  - G. Emissions for tanks shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."
14. The following requirements apply to Tanks T-314A, T-314B, and T-324: **(7/14)**
- A. Tanks shall be constructed with a sloped bottom and a sump that can be emptied to less than 1 percent of its nominal volume.
  - B. Tanks shall be constructed or equipped with the capability for connection to a vapor recovery system that routes vapors from the vapor space under the landed roof to a control device.
  - C. The tank's outlet to the vapor recovery system shall be located at a height from the tank floor no less than 90 percent of the tank roof's leg height, or be of such a design that demonstrably allows the control of no less than 90 percent of the vapors generated under the IFR during tank re-filling

15. Loading of methanol into tank trucks and railcars is authorized in accordance with the following requirements.
- A. Loading emissions shall be vented to one of the Catalytic Oxidizers, EPN VCO-1 and/or EPN VCO-2, for control at a minimum destruction efficiency of 99%. **(03/17)**
  - B. Methanol loading rates are limited to a maximum of 27,000 gallons per hour and 28,437,500 gallons per year. **(09/18)**
  - C. All loading shall be submerged fill and rolling 12 month rack throughput records shall be updated on a monthly basis.
  - D. All lines and connectors shall be visually inspected for any defects prior to hookup. Lines and connectors that are visibly damaged shall be removed from service. Operations shall cease immediately upon detection of any liquid leaking from the lines or connections.
  - E. Each tank truck shall pass vapor-tight testing every 12 months using the methods described in 40 CFR 60 Subpart XX. The permit holder shall not allow a tank truck to be filled unless it has passed a leak-tight test within the past year as evidenced by a certificate that shows the date the tank truck last passed the leak-tight test required by this condition and the identification number of the tank truck.
16. Flares shall be designed and operated in accordance with the following requirements:
- A. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value or hydrogen content and maximum tip velocity under normal, upset, and maintenance flow conditions. **(7/14)**  
  
The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements.
  - B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.
  - C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of steam assist to the flare.
  - D. The permit holder shall install a continuous flow monitor and calorimeter that provide a record of the vent stream flow and Btu content to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and heating value shall be recorded each hour.  
  
The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be  $\pm 5.0\%$ , temperature monitor shall be  $\pm 2.0\%$  at absolute temperature, and pressure monitor shall be  $\pm 5.0$  mm Hg.

The calorimeter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare, in British thermal units/standard cubic foot (Btu/scf) of the gas.

The monitors and analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

17. Catalytic Oxidizers (EPNs VCO-1 and VCO-2) shall be designed and operated in accordance with the following requirements: **(03/17)**
- A. The catalytic oxidizers, EPNs VCO-1 and VCO-2, shall maintain the VOC concentration in the exhaust gas less than 10 ppmv on a dry basis, corrected to 3 percent oxygen, or achieve a VOC destruction efficiency greater or equal to 99.0 percent. Quarterly testing of the stack effluent with colorimetric detection tubes or equivalent shall be conducted to measure methanol concentration in the stack while loading. The concentration of methanol shall be used to calculate the methanol emission rate in lb/hr and demonstrate compliance with the maximum allowable emission rate and to predict when the catalyst needs to be replaced.
  - B. Temperature of the catalytic oxidizer shall be continuously monitored at the inlet to the catalyst bed, inside the catalyst bed, and at the outlet of the catalyst bed. Temperature at the outlet of the catalyst bed will achieve a minimum of 315 °C before waste gas is fed into the oxidizer. Temperature inside the catalyst bed and at the outlet of the catalyst bed will not exceed 620 °C.
  - C. The catalytic oxidizer temperature at the locations specified in Paragraph B shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5^{\circ}\text{C}$ .
- Quality assured (or valid) data must be generated when the catalytic oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the catalytic oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

18. Piping, Valves, Connectors, Pumps, Agitators, and Compressors - 28VHP

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68° F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition

shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) piping and instrumentation diagram (PID);
  - (2) a written or electronic database or electronic file;
  - (3) color coding;
  - (4) a form of weatherproof identification; or
  - (5) designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or
- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line

and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would

create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
  - K. Alternative monitoring frequency schedules of 30 TAC §§115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
  - L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
19. In addition to the weekly physical inspection required by Item E of Special Condition 18, all connectors in gas/vapor and light liquid service shall be monitored annually with an approved gas analyzer in accordance with Items F thru J of Special Condition 18. Alternative monitoring frequency schedules ("skip options") of Title 40 Code of Federal Regulations Part 63, Subpart H, National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, may be used in lieu of the monitoring frequency required by this permit condition. Compliance with this condition does not assure compliance with requirements of applicable state or federal regulation and does not constitute approval of alternative standards for these regulations.
20. The VOC associated with cooling tower water shall be monitored monthly with an air stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method. The results of the monitoring, cooling water flow rate, and maintenance activities on the cooling water system shall be recorded. The monitoring results and cooling water hourly mass flow rate shall be used to determine cooling tower hourly VOC emissions. The rolling 12 month cooling water emission rate shall be recorded on a monthly basis and be determined by summing the VOC emissions between VOC monitoring periods over the rolling 12 month period. The emissions between VOC monitoring periods shall be obtained by multiplying the total cooling water mass flow between cooling water monitoring periods by the higher of the two VOC monitored results.

21. Cooling water shall be sampled once a week for total dissolved solids (TDS) and once a day for conductivity. Dissolved solids in the cooling water drift are considered to be emitted as PM. The data shall result from collection of water samples from the cooling tower feed water and represent the water being cooled in the tower. Water samples should be capped upon collection, and transferred to a laboratory area for analysis. The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, and SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. The analysis method for Conductivity shall be ASTM D1125-95A and SM2510 B. Use of an alternative method shall be approved by the TCEQ Regional Director prior to its implementation.

Emission rates of PM, PM10 and PM2.5 shall be calculated using the measured TDS and the ratio or correlation of TDS to conductivity measurements, the design drift rate and the daily maximum and average actual cooling water circulation rate for the short term and annual average rates. Alternately, the design maximum circulation rate may be used for all calculations. Emission records shall be updated monthly. **(09/18)**

#### **Planned Maintenance, Startup and Shutdown**

22. This permit authorizes the emissions from the facilities authorized in this permit for the following planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment B) attached to this permit.

Routine maintenance activities, as identified in Attachment A may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment A shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity not identified in Attachment A and the emissions associated with it shall be recorded and include at least the following information:

- A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. the type of planned MSS activity and the reason for the planned activity;
- C. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. the date and time of the MSS activity and its duration;
- E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

23. Process units and facilities, with the exception of those identified in Special Conditions 25 and 26, shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements.
- A. The process equipment shall be depressurized to a control device or a controlled recovery system prior to venting to atmosphere, degassing, or draining liquid. Equipment that only

contains material that is liquid with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to atmosphere and drained in accordance with paragraph C of this special condition. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.

- B. If mixed phase materials must be removed from process equipment, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. If the VOC partial pressure is greater than 0.50 psi at either the normal process temperature or 95°F, any vents in the system must be routed to a control device or a controlled recovery system. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. Control must remain in place until degassing has been completed or the system is no longer vented to atmosphere.
- C. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids must be drained into a closed vessel or closed liquid recovery system unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
- D. If the VOC partial pressure is greater than 0.50 psi at the normal process temperature or 95°F, facilities shall be degassed using good engineering practice to ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. The facilities to be degassed shall not be vented directly to atmosphere, except as necessary to establish isolation of the work area or to monitor VOC concentration following controlled depressurization. The venting shall be minimized to the maximum extent practicable and actions taken recorded. The control device or recovery system utilized shall be recorded with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.
  - (1) For MSS activities identified in Attachment A, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
  - (2) The locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (process flow diagrams [PFDs] or piping and instrumentation diagrams [P&IDs] may be used to demonstrate compliance with the requirement). If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 24. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. If there is not a connection (such as a sample, vent, or drain



valve) available from which a representative sample may be obtained, a sample may be taken upon entry into the system after degassing has been completed. The sample shall be taken from inside the vessel so as to minimize any air or dilution from the entry point. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. Documented site procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

24. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.
- A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:
- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor (RF) of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate (RF) shall be recorded.
  - (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. As an alternative the VOC concentration may be monitored over a five-minute period with an instrument designed to continuously measure concentration and record the highest concentration read. The highest measured VOC concentration shall be recorded and shall not exceed the specified VOC concentration limit prior to uncontrolled venting.
- B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.
- (1) The air contaminant concentration measured as defined in (3) is less than 80 percent of the range of the tube and is at least 20 percent of the maximum range of the tube.
  - (2) The tube is used in accordance with the manufacturer's guidelines.
  - (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:  
measured contaminant concentration (ppmv) < release concentration.  
Where the release concentration is:  
10,000\*mole fraction of the total air contaminants present that can be detected by the tube.  
The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.  
Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.
- C. Lower explosive limit measured with a lower explosive limit detector.

- (1) The detector shall be calibrated monthly with an appropriate certified gas standard at 25% of the LEL for the appropriate gas. Records of the calibration date/time and calibration result (pass/fail) shall be maintained
  - (2) A daily functionality test shall be performed on each detector using the same type of certified gas standard. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.
  - (3) A certified methane gas standard equivalent to 25% of the LEL for the appropriate gas may be used for calibration and functionality tests provided that the LEL response is within 95% of that for the appropriate gas.
  - (4) Definitions
    - (a) An appropriate gas is one that when used for calibration of the detector ensures that the response factor (RF) of the VOC (or mixture of VOCs) to be monitored is less than 1.2.
    - (b) The same type of certified gas standard is a standard consisting of the same gas as used for calibration, certified to be 25 percent of the LEL for that gas.
25. This permit authorizes emissions from EPN F-305, MSS-C, and MSS-U for the storage tanks identified in the attached facility list during planned floating roof landings. Tank roofs may only be landed for tank inspection/maintenance as identified in the permit application. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to tank roof landings.
  - A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control or a controlled recovery system during this process.
  - B. If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning. Controlled degassing of the vapor space under landed roofs shall be completed as follows:
    - (1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.
    - (2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.

- (3) A volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 24.
  - (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
  - (5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.15 psia.
- C. The tank shall not be opened or ventilated without control, except as allowed below until one of the criteria in part D of this condition is satisfied.
- Minimize air circulation in the tank vapor space.
- (1) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.
  - (2) Access points shall be closed when not in use
- D. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
- (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
  - (2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
    - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.
    - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).
    - (c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 24.
  - (3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

- E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs with the following exceptions:
- (1) Only one tank with a landed floating roof can be filled at any time at a rate not to exceed 20,000 gallons per hour. **(7/14)**
  - (2) The vapor space below the tank roof is directed to a control device when the tank is refilled until the roof is floating on the liquid. The control device used and the method and locations used to connect the control device shall be recorded. All vents from the tank being filled must exit through the control device.
- F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:
- (1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;
  - (2) the reason for the tank roof landing;
  - (3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
    - (a) the roof was initially landed,
    - (b) all liquid was pumped from the tank to the extent practical,
    - (c) start and completion of controlled degassing, and total volumetric flow,
    - (d) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
    - (e) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
    - (f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and
    - (g) tank roof off supporting legs, floating on liquid;
  - (4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events c and g with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application.
26. Fixed roof storage tanks are subject to the requirements of Special Condition 25.C and 25.D. If the ventilation of the vapor space is controlled, the emission control system shall meet the requirements of Special Condition 25.B(1) through 25.B.(4). Records shall be maintained per Special Condition 25.F(3)(c) through 25.F.(3)e, and 25.F.(4).

27. Additional occurrences of MSS activities authorized by this permit may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.
28. All permanent facilities must comply with all operating requirements, limits, and representations in this permit during planned startup and shutdown unless alternate requirements and limits are identified in this condition. Alternate requirements for emissions from routine emission points are identified below.
  - A. Combustion units, with the exception of flares, at this site are exempt from NO<sub>x</sub> and CO operating requirements identified in special conditions 10 and 11 during planned startup and shutdown if the following criteria are satisfied.
    - (1) The maximum allowable emission rates in the permit authorizing the facility are not exceeded.
    - (2) The startup period does not exceed 24 hours in duration and the firing rate does not exceed 75 percent of the design firing rate. The time it takes to complete the shutdown does not exceed 12 hours. **(7/14)**
    - (3) Control devices are started and operating properly when venting a waste gas stream.
  - B. A record shall be maintained indicating that the start and end times of each of the activities identified above occur and documentation that the requirements for each have been satisfied.
29. Control devices required by this permit for emissions from planned MSS activities are limited to the flare, EPN F-305.

#### **Initial Demonstration of Compliance**

30. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Steam Methane Reformer (EPN F-501), Package Boiler (EPN B-601) and Catalytic Oxidizers (EPNs VCO-1 and VCO-2) to demonstrate compliance with the MAERT and with Special Conditions 10, 11 and 17. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods. **(03/17)**

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60) testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

- A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:
  - (1) Proposed date for pretest meeting.
  - (2) Date sampling will occur.
  - (3) Name of firm conducting sampling.

- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
- (7) Procedure/parameters to be used to determine worst case emissions during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

- B. Air contaminants emitted from EPNs F-501 and B-601 to be tested for include (but are not limited to) CO and NO<sub>x</sub>. Air contaminants emitted from EPNs VCO-1 and VCO-2 to be tested for include VOC. **(03/17)**
- C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.
- D. The facility being sampled shall operate at the maximum expected methanol production rate and boiler firing rates during stack emission testing. The catalytic oxidizers shall be operated at the maximum expected methanol loading rate during stack emission testing. These production, firing, and loading rates, temperature of inside the catalyst bed, temperature at the outlet of the catalyst and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.  
  
During subsequent operations, if the methanol production rate, boiler firing rate, or methanol loading rate is greater than that recorded during the test period or catalytic oxidizer temperature inside the catalyst or at the outlet of the catalyst is out of operating range specified in SC 17B, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region. **(03/17)**
- E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.

One copy to each local air pollution control program.

- 31. Sampling ports and platform(s) shall be incorporated into the design of EPNs VCO-1, VCO-2, F-501, and B-601 according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" of the Texas Commission on Environmental Quality (TCEQ) Sampling

Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director. **(03/17)**

### **Continuous Demonstration of Compliance**

32. The following conditions satisfy the requirements for Periodic Monitoring:
- A. Semi-annual monitoring of sulfur content and heating value of natural gas, as required by Special Condition 8.
  - B. Continuous monitoring of fuel flow to the Steam Methane Reformer and the package boiler as required by Special Condition 9.
  - C. Hours of non-emergency operation of the Firewater Pumps and Emergency Diesel Generators (EPNs FWP-1, FWP-2, FWP-3, and EGEN-1) shall be monitored and recorded to demonstrate compliance with Special Condition 12.
  - D. Monthly storage tank throughput and liquid storage temperature for Accumulators V-304A and V-304B and for Tanks T-314A, T-314B, and T-324 shall be monitored to determine information necessary for the emission calculations required by Special Condition 13.F.
  - E. Monitoring of methanol loading rates to demonstrate compliance with Special Condition 15.B and C.
  - F. Monitoring of temperature at the inlet to the catalyst bed, inside the catalyst bed and at the outlet of the catalyst bed in the catalytic oxidizer (EPNs VCO-1 and VCO-2) as required by Special Condition 17.B. **(03/17)**
  - G. Monitoring of the cooling water VOC content as required by Condition 20 and of TDS and conductivity of the cooling water as required by Special Condition 21.
33. The permit holder shall install, calibrate, and maintain a predictive emission monitoring system (PEMS) to measure and record the in-stack concentration of NO<sub>x</sub> from Steam Methane Reformer (EPN F-501). **(09/18)**
- A. A PEMS may be used for demonstrating continuous compliance if it can be proven to have the same or better accuracy, precision, reliability, accessibility, and timeliness as that provided by a hardware CEMS. All PEMS shall be subject to the approval of the TCEQ Executive Director. Owners or operators must petition the TCEQ Executive Director for approval to use PEMS. The petition must include results of tests conducted beforehand to demonstrate equivalent accuracy and precision of PEMS to that of hardware CEMS. Demonstrating equivalency of PEMS to CEMS shall be met by instantaneously comparing data collected by PEMS with that collected by a certified hardware CEMS or an EPA reference method. For a PEMS replacing a CEMS, both systems shall remain in place for at least an operating quarter collecting valid information before the CEMS is removed.
  - B. For any unit at which the PEMS is installed, PEMS initial certification by the TCEQ shall occur while the unit is firing its primary fuel. The owner or operator shall:
    - (1) Conduct relative accuracy testing for NO<sub>x</sub>, CO and O<sub>2</sub>, or carbon dioxide (CO<sub>2</sub>) per 40 CFR Part 60, Appendix B, Performance Specifications 2, 3, 4, and 16 (PS-16) respectively, at low, medium, and high levels (of the defined operating envelope) of most significant operating parameter affecting NO<sub>x</sub> emissions.

- (2) Conduct statistical test analysis at low, medium, and high levels (of the defined operating envelop) of the most significant operating parameter affecting NO<sub>x</sub> emissions. A minimum of 30 successive paired data points which are either 15-minute averages, 20-minute averages, or hourly averages must be collected at each tested level before a reliable statistical test can be performed.

Data collection must be continuous at all times except when calibration of the reference method must be conducted for the purpose of collecting data for RATA.

As per PS-16 Section 8.3 Statistical Tests for PEMS that are used for Continual Compliance in addition to the RA determination, evaluate the paired RA and PEMS data using the following statistical tests:

- (a) 8.3.1 Bias Test. From the RA data taken at the mid-level, determine if a bias exists between the RM and PEMS. Use the equations in section 12.3.1.
  - (b) 8.3.2 F-test. Perform a separate F-test for the RA paired data from each operating level to determine if the RM and PEMS variances differ by more than might be expected from chance. Use the equations in section 12.3.2.
  - (c) 8.3.3 Correlation Analysis. Perform a correlation analysis using the RA paired data from all operating levels combined to determine how well the RM and PEMS correlate. Use the equations in section 12.3.3. The correlation is waived if the process cannot be varied to produce a concentration change sufficient for a successful correlation test because of its technical design. In such cases, should a subsequent RATA identify a variation in the RM measured values by more than 30 percent, the waiver will not apply, and a correlation analysis test must be performed at the next RATA.
- (3) For NO<sub>x</sub> and for the purpose of conducting an F-test, if the standard deviation (SD) of the reference method is less than either 3 percent of the span or 5 ppm, use a reference method SD of the greater of 5 ppm or 3 percent of span.
  - (4) For diluent CO<sub>2</sub> or O<sub>2</sub> and for the purpose of conducting an F-test, if the SD of the reference method is less than 3 percent of span, use a reference method SD of 3 percent of span.
  - (5) For NO<sub>x</sub> and at any one tested level, if the mean value of the reference method is less than either 10 ppm or 5 percent of the standard, all statistical tests are waived for that emission parameter at that specific tested level.
  - (6) For either O<sub>2</sub> or CO<sub>2</sub> and at any one tested level, if the mean value of the reference method is less than 3 percent of span, all the statistical tests are waived for that diluent parameter at that specific tested level.
- C. The monitoring data shall be reduced to hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of NO<sub>x</sub> lb/MMBtu and CO ppmvd at 3% on an hourly average at least once every week as follows:
- The (hourly averaging period) average concentration from the PEMS shall be multiplied by the modelled exhaust gas flow rate determined by PS-16 standards to determine the hourly emission rate.
- D. All monitoring data and quality-assurance data shall be maintained by the permit holder.



- E. Any PEMS downtime shall be reported to the appropriate TCEQ Regional Director within three days of any downtime, and necessary corrective action shall be taken. Quality-assured (or valid) data must be generated when the Steam Methane Reformer (EPN F-501) is operating except during the performance of a sensor validation check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Steam Methane Reformer (EPN F-501) operated over the previous rolling 12-month period. Owners or operators shall demonstrate that all missing data can be accounted for in accordance with the applicable missing data procedures of 40 CFR Part 60, Appendix-B; PS-16. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.
- F. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to each annual RATA in order to provide them the opportunity to observe the testing.
- G. The owner or operator shall perform daily sensor validation as per PS-16 sections 6.1.8 and 9.2.
- (1) 6.1.8 Sensor Evaluation System. Your PEMS must be designed to perform automatic or manual determination of defective sensors on at least a daily basis. This sensor evaluation system may consist of a sensor validation sub-model, a comparison of redundant sensors, a spot check of sensor input readings at a reference value, operation, or emission level, or other procedure that detects faulty or failed sensors. Some sensor evaluation systems generate substitute values (reconciled data) that are used when a sensor is perceived to have failed.
- (a) You must obtain prior approval before using reconciled data.
- (2) 9.2 Daily Sensor Evaluation Check. Your sensor evaluation system must check the integrity of each PEMS input at least daily.
- (3) The owner or operator shall develop and implement plans that will ensure proper functioning of the monitoring systems, ensure proper accuracy and calibration of all operational parameters that affect emissions and serve as input to the predictive monitoring system, and ensure continuous operation within the certified operating range.
- H. In accordance with the procedure of Section 9.0, Appendix B of 40 CFR Part 60 PS-16, a RATA must be performed by the following section 9 QA/QC standards:

(1) ONGOING QUALITY ASSURANCE TESTS

Test	PEMS regulatory purpose	Acceptability	Frequency
Sensor Evaluation	All		Daily.
RAA	Compliance	3-test avg $\leq 10\%$ of simultaneous analyzer or RM average	Each quarter except quarter when RATA performed.

RATA	All	Same as for RA in Sec. 13.1	Yearly in quarter when RAA not performed.
Bias Correction	All	If $d_{avg} \leq  cc $	Bias test passed (no correction factor needed).
PEMS Training	All	If $F_{critical} \geq F_r \geq 0.8$	Optional after initial and subsequent RATAs.

- (2) 9.2 Daily Sensor Evaluation Check. Your sensor evaluation system must check the integrity of each PEMS input at least daily.
- (3) 9.3 Quarterly Relative Accuracy Audits. In the first year of operation after the initial certification, perform a RAA consisting of at least three 30-minute portable analyzer or RM determinations each quarter a RATA is not performed. To conduct a RAA, follow the procedures in Section 8.2 for the relative accuracy test, except that only three sets of measurement data are required, and the statistical tests are not required. The average of the three or more portable analyzer or RM determinations must not exceed the limits given in Section 13.5. Report the data from all sets of measurement data. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, you may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, you must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA.
- (4) 9.4 Yearly Relative Accuracy Test. Perform a minimum 9-run RATA at the normal operating level on a yearly basis in the quarter that the RAA is not performed. The statistical tests in Section 8.3 are not required for the yearly RATA.
  - I. When an alternative fuel is fired in a unit, excluding times during planned startup and shutdown, PEMS must be re-certified in accordance with the certification procedures outlined for initial certification under Section B. Owners or operators may justify to the satisfaction of the TCEQ Executive Director that slight changes in fuel composition do not constitute an alternative fuel. No additional recertification procedures are required if the unit meets the current monitoring requirements when switching back to the normal fuel from an alternate fuel.
  - J. The system is required to provide valid emission predictions for at least 95 percent of the time that the unit being monitored is operated. The following rules for tuning without recertification shall be followed:
    - (1) The model did not change fundamentally.

(2) The model continues to operate within the initially certified operating ranges.

Otherwise, the system must be recertified. Any tuning must be documented, and the records must be made available during any future inspection.

- K. All owners or operators shall develop a quality-assurance plan or manual that insures continuous and reliable performance of the PEMS. As part of the plan, owners or operators shall recommend a frequency for calibrating each sensor whose readout serves as an input to the model. All sensors, at a minimum, shall be calibrated as often as recommended by the manufacturer.

### **Recordkeeping**

34. The permit holder shall maintain the following records electronically or in hard copy format for at least five years. These records shall be used to demonstrate compliance with the Special Conditions and the limits specified in the MAERT:
- A. Records of sulfur and heating value analyses as required by Special Condition 8.
  - B. Records of fuel gas usage, hours of operation of the fuel flow meters, and records of hours of operation of the Steam Methane Reformer and package boiler as required by Special Condition 9.
  - C. Records of hours of operation of the firewater pumps and emergency generator, as required by Special Condition 12.
  - D. Records for storage tanks as required by Special Condition 13.F.
  - E. Records of methanol loading rates as limited by Special Condition 15.
  - F. Records of flare flow, net heating value of gas sent to the flare, and hours of operation of the monitors and analyzers as required by Special Condition 16.D.
  - G. Records of temperature at the inlet to the catalyst bed, inside the catalyst bed and at the outlet of the catalyst bed in the catalytic oxidizer (EPNs VCO-1 and VCO-2) as required by Special Condition 17.B. **(03/17)**
  - H. Records to demonstrate compliance with the leak detection and repair requirements in Special Condition 18 and 19. **(03/17)**
  - I. Records of annual flange monitoring as required by Special Condition 19.
  - J. Records of cooling water VOC monitoring required by Special Condition 20.
  - K. Records of TDS and conductivity monitoring required by Special Condition 21.
  - L. Records of MSS activities as required by Special Conditions 22 - 29.
  - M. Records of initial and subsequent stack sampling required by Special Condition 30.

Date: September 11, 2018

**Permit 105050**

Attachment A

ROUTINE MAINTENANCE ACTIVITIES

Pump repair/replacement

Fugitive component (valve, pipe, flange) repair/replacement

Compressor repair/replacement

Heat exchanger repair/replacement

Vessel repair

Date: January 15, 2013

**Permit 105050**

**Attachment B**

**MSS ACTIVITY SUMMARY**

<b>Facilities</b>	<b>Description</b>	<b>Emissions Activity</b>	<b>EPN</b>
all process units	process unit shutdown/depressurize/drain	vent to flare	F-305 MSS-C
all process units	process unit purge/degas/drain	vent to atmosphere	MSS-U
all process units	process unit startup	vent to flare	F-305 MSS-C
all process units and tanks	preparation for facility/component repair/replacement	vent to flare	F-305 MSS-C
all process units and tanks	preparation for facility/component repair/replacement	vent to atmosphere	MSS-U
Tanks T-314A, T-314B, and T-324	tank roof landing	operation with landed roof	MSS-U
Tanks T-314A, T-314B, and T-324	degas of tank with landed roof	controlled degassing	F-305 MSS-C

Date: July 25, 2014