



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

1/12/2016

Reagan Mayces
 Waterville Compressor Station
 PO Box 1642
 Houston, TX 77251-1642

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0448002148
 Permit Number: P0119251
 Permit Type: Initial Installation
 County: Lucas

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Toledo Blade. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
 Permit Review/Development Section
 Ohio EPA, DAPC
 50 West Town Street Suite 700
 PO Box 1049
 Columbus, Ohio 43216-1049

and Toledo Department of Environmental Services
 348 South Erie Street
 Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

Michael E. Hopkins, P.E.
 Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
 TDES; Michigan; Indiana; Canada

Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. **Source Description:** NEXUS Gas Transmission (NGT) has requested a Permit-to-Install and Operate (PTIO) for a natural gas compressor station in Waterville Township, Lucas County, Ohio. The proposed Waterville Compressor Station will facilitate delivery of natural gas along the NGT pipeline. The permittee plans to install the following emissions units:

DAPC EU ID	Company ID	Description	Permit Status
B001	Process Heater	Natural gas-fired catalytic heater rated at a heat input capacity of 1.125 MMBtu/hr	De Minimis Exemption
F001	Roadways	Fugitive particulate emissions from vehicle traffic on facility roadways	De Minimis Exemption
L001	Parts Washer	Remote reservoir parts washer expected to use 120 gallons of makeup organic solvent per year	De Minimis Exemption
J001	Loading Operation	Periodic transfer of condensate liquids, used lubricating oil, and oily water to tanker trucks for shipment off-site	PTIO
P001	Combustion Turbine	29,517 HP (196.51 MMBtu/hr) natural gas-fired Solar Turbine; Titan-250-30002S4 Compressor Turbine equipped with SoLoNOx technology and an oxidation catalyst	PTIO
P002	Emergency Generator	880 hp natural gas-fired emergency electrical generator	Permit-By-Rule Exemption
P003	Gas Releases	Gas releases due to periodic maintenance, compressor blowdowns, routine operations (startup and shutdown and reduced pressure demand events) and other miscellaneous releases	PTIO
P004	Separator Vessel #1	1,590 gallon separator vessel	PTIO
P005	Separator Vessel #2	1,590 gallon separator vessel	PTIO
P006	Separator Vessel #3	1,200 gallon separator vessel	PTIO
P007	Separator Vessel #4	950 gallon separator vessel	PTIO

P008	Separator Vessel #5	130 gallon separator vessel	PTIO
P009	Pipeline Pigging	Gas releases associated with periodic pipeline pigging activities	PTIO
P801	Equipment Leaks	Fugitive emissions from components.	PTIO
T001	Storage Tank #1	Vertical fixed roof tank sized to a capacity of 2,000 gallons used to store condensate liquids collected from the pipeline and from station equipment.	3745-31-03(A)(1) Exemption
T002	Storage Tank #2	570 gallon vertical fixed roof tank to store lubricating oils for the turbine	De Minimis Exemption
T003	Storage Tank #3	3,000 gallon vertical fixed roof tank to store oily water	De Minimis Exemption

3. **Facility Emissions and Attainment Status:** This facility will be a minor source of all criteria pollutants and hazardous air pollutants (HAPs). Lucas County is currently designated as attainment for ozone. The Waterville Compressor Station is subject to 40 CFR Part 60, Subpart KKKK:Standards of Performance for Stationary Combustion Turbines, and potentially subject to 40 CFR Part 60, Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution, if the 9/18/2015 proposed amendments become final.

4. **Source Emissions:** A summary of the emission calculations is listed below. Additional details are available in permit applications A0053876 and A0054486.

J001 – Loading condensate liquids, used lubricating oil, and oily water into tanker trucks results in emissions of volatile organic compounds (VOCs) greenhouse gases (GHGs) and HAPs. Total loading losses were estimated using Equation 1 in AP-42 Section 5.2 (dated 06/2008) based on the following materials and associated parameters:

$$L_L = 12.46(\text{SPM})/T$$

L_L = loading loss, pounds per thousand gallons of liquid loaded (lb/1000 gal)

S = saturation factor

= 0.60 for submerged loading - dedicated normal service, unit less

= 1.45 for splash fill loading - dedicated normal service, unit less

P = true vapor pressure of liquid loaded, psia

M = molecular weight of vapors, lb/lb-mole

T = temperature of liquid loaded, °R (°R = °F + 460)

Material Description	Annual Throughput (gal/yr)	Saturation Factor	Vapor Pressure* (psia)	Molecular Weight (lb/lb-mole)	Temperature* (°R)	Loading Loss Factor (lb VOC/1000 gallons loaded)
Pipeline Liquids	4,000	0.60	4.9552	66.0	516.84	4.7306
Lubricating Oil	6,840	1.45	0.0061	130.0	516.84	0.0279

Oily Water	36,000	1.45	0.0061	130.0	516.84	0.0279
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*Annual average

Annual Loading Losses

Pipeline liquids 4,000 gal/yr(4.7306 lb/1000 gal)(ton/2000 lbs.) = 9.46E-03 ton/yr VOC

Lubricating oil 6,840 gal/yr(0.0279 lb/1000 gal)(ton/2000 lbs.) = 9.50E-05 ton/yr VOC

Oily water 36,000 gal/yr(0.0279 lb/1000 gal)(ton/2000 lbs.) = 5.02E-04 ton/yr VOC

Total losses = 9.46E-03 ton/yr + 9.5E-05 ton/yr + 5.02E-04 ton/yr = 0.01 ton/yr VOC

P001 – Regulated pollutants emitted from natural gas combustion include nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter (PM), VOCs, GHGs, and HAPs. The permittee submitted emission calculations using the turbine manufacturer's guaranteed emission rates, and emission factors for stationary gas turbines from AP-42 Section 3.1 (dated 04/2000). The turbine's annual emissions were estimated as the maximum potential combination for each pollutant at normal/steady-state, startup, shutdown, and low temperature operations with the following assumptions:

- Maximum hourly emissions during normal operation are based on operation when the ambient temperature is 0.01 °F.
- Hourly startup emissions are based on a maximum of 2 startups per hour, with each startup lasting 9 minutes (3 minutes of ignition phase and 6 minutes of loading/thermal stabilization)
- Hourly shutdown emissions are based on a maximum of 2 shutdowns per hour, with each shutdown lasting 8.5 minutes.
- SU + SD + Normal represents the emissions that would occur with 2 startups per hour (18 minutes), 2 shutdowns per hour (17 minutes), and 25 minutes per hour of normal operation (60-18-17 = 25 minutes). The hourly emissions rate in the above table for startup and shutdown represent the total emissions from startup and shutdown during a 1-hour period. Add the startup and shutdown emissions to the product of [Hourly Max x (25/60)].
- Low Temp – operation at temperatures ≤ 0 °F. The manufacture only provides a guarantee on NO_x emissions at temperatures above 0 °F.
- Combined represents a combination of normal operation, Startup & Shutdown, and low temperature operation.
- Oxidation catalyst is assumed to not be effective during startup.
- Oxidation catalyst control efficiency was reported to be 95% for CO and 50% for VOC emissions

The below-listed annual emissions are based on the following assumptions.

- Normal operation at annual average ambient temperature of 48.49 °F
- 260 startups per year (39 hrs/yr) and 260 shutdowns per year (37 hrs/yr)
- Operation for 29 hours/yr at temperatures, T, where 0 °F ≥ T > -20 °F
- Operation for 0 days/yr at temperatures ≤ -20 °F

Pollutant	Annual Emissions, tons/yr
CO	7.81
NO _x	31.08
PM _{10/2.5}	6.25
SO ₂	3.22

VOC 3.32
HAP_{total} 0.60

P003 – The permittee estimated emissions from gas releases based on a similar compressor station with a maximum annual volume of 29.45 million standard cubic feet (1,365,152 pounds) of natural gas released per year from depressurization/maintenance activities and compressor blowdowns. The average VOC content of the gas was determined to be 2.90 percent by weight based on lab analysis.

$$1.36515E06 \text{ lbs/yr} (2.90 \text{ lb VOC}/100 \text{ lb natural gas}) (\text{ton}/2000 \text{ lbs}) = 19.79 \text{ tons/yr VOC}$$

The permittee has requested 19.82 tons/yr VOC –the difference being due to rounding.

$$19.82 \text{ tons/yr} (\text{yr}/12 \text{ months}) = 1.65 \text{ tons/month averaged over a 12-month rolling period}$$

P004, P005, P006, P007, P008 Separator vessels #1 through #5

The separator vessels separate liquids and particulate from natural gas in the separator vessels. Liquid collects in sumps at the bottom of the separators. The main portion of the separator is under pressure, and would only have emissions from fugitive equipment leaks covered under P801. Liquid from the pressurized section of the separator is pumped to a non-pressurized portion of the separator, where the emissions would be similar to a storage tank. The permittee estimated emissions from the separator vessels using TANKS 4.09d.

Annual emissions estimated by TANKS 4.09d are based on RVP 10 gasoline at an annual average temperature of 56.84 °F with the following maximum liquid volume and throughputs.

Emissions Unit	Maximum liquid volume	Throughput, gal/yr	VOC, tons/yr
P004	530 gallons	71	0.14
P005	530 gallons	71	0.14
P006	400 gallons	53	0.11
P007	317 gallons	4,000	0.60
P008	43 gallons	6	0.01

P009 Pigging operations

This emissions unit covers gas releases associated with periodic pipeline pigging activities. A “pig” is a device that is inserted into a pipeline by a launching station (an oversized section in the pipeline that reduces to the normal diameter, and the pig is removed from the pipeline at a receiving station. Use of pigging allows for inspection and maintenance of pipelines without stopping the flow of material contained in the pipeline. Launching and receiving pigs requires that personnel open the launcher/receiver vessel which may contain natural gas. Personnel typically manipulate valve positions to reduce the pressure and the mass of natural gas in the launcher/receiver vessel to the extent practicable prior to opening the vessel.

The permittee has indicated that pigging is normally done 2 times per year, but has based the requested allowable emissions on 5 pigging events per year. The permittee has also included emissions from 5 valve actuators that have a gas release of 4 times per hour, 365 days per year. The permittee has estimated a total annual volume of 595,074 scf/yr from pigging events and valve actuators. At an average gas density of 0.0464 lb/scf, the permittee has estimated a total of 27,618 lbs/yr of gas released containing approximately containing 2.9 percent by weight

VOC, resulting in annual emissions of 0.4 ton/yr VOC. This emissions unit does not qualify for the de-minimis air contaminant source exemption under OAC rule 3745-15-05, since maximum daily emissions would exceed 10 pounds per day based on the estimated emissions.

The permittee has requested BAT to be set based on 0.4 ton/yr/(12 months/yr)
= 0.033 ton per month averaged over a twelve-month rolling period.

P801 – Fugitive emissions from equipment leaks were estimated based on the component counts from a similar compressor station, as the equipment component count for the Waterville Compressor Station has not been finalized. VOC emission factors were based on laboratory analysis (Gas: 2.904 wt%, Light Oil: 99.86 wt%, and Heavy Oil: 100.00 wt%). Allowable emissions were calculated using emissions factors from Table 2-4 (Oil and Gas Production operations Average Emission Factors) of Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017) based on the following component counts and associated parameters:

Equipment Type	Service Type	Component Count	TOC Emission Factor (kg/hr/component)
Valves	Gas	724	4.5E-03
	Light Oil	100	2.5E-03
	Heavy Oil	59	8.4E-06
Connectors	Gas	2,631	2.0E-04
	Light Oil	666	2.1E-04
	Heavy Oil	278	7.5E-06
Flanges	Gas	501	3.9E-04
	Light Oil	161	1.1E-04
	Heavy Oil	94	3.9E-07
Open-ended Lines	Gas	9	2.0E-03
	Light Oil	11	1.4E-03
	Heavy Oil	0	1.4E-04
Pump Seals	Gas	0	2.4E-03
	Light Oil	2	1.3E-02
	Heavy Oil	6	8.62E-03*
Other**	Gas	66	8.8E-03
	Light Oil	2	7.5E-03
	Heavy Oil	2	3.2E-05

*Table 2-4 does not include an emission factor for pumps in heavy oil service. The average SOCM1 without ethylene emission factor for pumps in heavy oil service from Table 2-1 was used to estimate emissions.

**Other equipment type includes blowdown valves, relief valves, and compressor seals.

The following VOC contents were used by the permittee to calculate the VOC emissions using the above emissions factors based on laboratory analysis of gas release emissions from a similar compressor station.

<u>Service</u>	<u>VOC Content, % by weight</u>
Gas	2.904
Light Oil	99.86
Heavy Oil	100

$$\text{VOC}_{\text{Gas}} = [724(4.5\text{E-}03) + 2,631(2.0\text{E-}04) + 501(3.9\text{E-}04) + 9(2.0\text{E-}03) + 0... + 66(8.8\text{E-}03)](2.904/100) = 0.13300 \text{ kg/hr}$$

$$\text{VOC}_{\text{Lt Oil}} = [100(2.5\text{E-}3) + 666(2.1\text{E-}04) + 161(1.1\text{E-}04) + 11(1.4\text{E-}03) + 2(1.3 \text{E-}02)... + 2(7.5\text{E-}03)](99.86/100) = 0.46332 \text{ kg/hr}$$

$$\text{VOC}_{\text{Hvy Oil}} = 59(8.4\text{E-}06) + 278(7.5\text{E-}06) + 94(3.9\text{E-}07) + 0 + 6(8.62\text{E-}03) + 2(3.2\text{E-}05) = 0.05440 \text{ kg/hr}$$

$$\text{VOC}_{\text{total}} = 0.13300 \text{ kg/hr} + 0.46332 \text{ kg/hr} + 0.05440 \text{ kg/hr} = 0.65072 \text{ kg/hr}$$

$$\text{VOC}_{\text{total}} = 0.65072 \text{ kg/hr}(2.20462 \text{ lb/kg}) = 1.4346 \text{ lbs/hr}$$

$$\text{VOC}_{\text{total}} = 1.4346 \text{ lbs/hr}(8760 \text{ hrs/yr})(\text{ton}/2000 \text{ lbs}) = 6.28 \text{ tons/yr}$$

- Conclusion:** Issuance of PTIO P0119251 is recommended to be issued first as a draft action.
- Please provide additional notes or comments as necessary:** This permit is recommended for draft issuance.
- Total Permit Allowable Emissions Summary (for informational purposes only):**

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	7.81
NO _x	31.08
PM ₁₀	6.24
SO ₂	3.24
VOC	30.8

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: <http://epa.ohio.gov/actions.aspx> or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email: HClerk@epa.ohio.gov

Draft Air Pollution Permit-to-Install and Operate Initial Installation Waterville Compressor Station

Moosman Dr., Waterville, OH 43566

ID#:P0119251

Date of Action: 1/12/2016

Permit Desc: Installation of a natural gas compressor station powered by a 29,517 hp natural gas-fired combustion turbine..

The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the ID # or: Matthew Stanfield, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604. Ph: (419)936-3015



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Waterville Compressor Station**

Facility ID:	0448002148
Permit Number:	P0119251
Permit Type:	Initial Installation
Issued:	1/12/2016
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install and Operate
for
Waterville Compressor Station

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Draft Permit-to-Install and Operate

Waterville Compressor Station

Permit Number: P0119251

Facility ID: 0448002148

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0448002148
Application Number(s): A0053876, A0054486
Permit Number: P0119251
Permit Description: Installation of a natural gas compressor station powered by a 29,517 hp natural gas-fired combustion turbine.
Permit Type: Initial Installation
Permit Fee: \$2,750.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 1/12/2016
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Waterville Compressor Station
MoosmanDr
Waterville, OH 43566

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Authorization (continued)

Permit Number: P0119251

Permit Description: Installation of a natural gas compressor station powered by a 29,517 hp natural gas-fired combustion turbine.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

- Emissions Unit ID:** J001
 Company Equipment ID: J001
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P001
 Company Equipment ID: Combustion Turbine
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P003
 Company Equipment ID: Gas Releases
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P006
 Company Equipment ID: Separator Vessel #3
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P007
 Company Equipment ID: Separator Vessel #4
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P008
 Company Equipment ID: Separator Vessel #5
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P009
 Company Equipment ID: Pipeline Pigging
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID:** P801
 Company Equipment ID: Equipment Leaks
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Group Name: Separator Vessel Group

Emissions Unit ID:	P004
Company Equipment ID:	P004
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install and Operate

Waterville Compressor Station

Permit Number: P0119251

Facility ID: 0448002148

Effective Date: To be entered upon final issuance

Emissions Unit ID:	P005
Company Equipment ID:	Separator Vessel #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install and Operate
Waterville Compressor Station
Permit Number: P0119251
Facility ID: 0448002148
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Toledo Department of Environmental Services in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the



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change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



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B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) B.3.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.
2. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines: P001 and P002. The complete New Source Performance Standards (NSPS) requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.
3. Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year for those emission units subject to this rule. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.
4. Air contaminant sources that qualify as de minimis under OAC rule 3745-15-05, or are exempt under OAC rule 3745-31-03(A)(1) or (4) are not subject to emission standards established within this permit. Although this permit does not apply to de minimis or exempt sources, emissions from de minimis or exempt sources must be included in the total potential to emit (PTE) calculations for this permit.



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C. Emissions Unit Terms and Conditions



1. J001, J001

Operations, Property and/or Equipment Description:

Condensate and oily water/used oil truck loading

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	<p>Volatile organic compound (VOC) emissions shall not 0.001 ton per month averaged over a 12-month rolling period.</p> <p>See b)(2)a. below.</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons per year.</p> <p>See b)(2)b. below.</p>

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the

less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

(1) Tank Truck Unloading Operations

- a. Prior to connecting the condensate transfer line(s) from the condensate tank to the condensate tank truck, the permittee shall inspect all fittings, valves, gaskets and fasteners that will be used during the transfer to ensure they are in proper condition (i.e., not corroded, torn, worn, stripped or otherwise damaged) and will result in vapor tight connections.
- b. During the loading of condensate from the condensate to the condensate tank truck, the permittee shall continually monitor the transfer equipment, the condensate tank and the tank truck for any leaks through visual, olfactory, or other observations. If any leak is detected, loading of the condensate shall cease until the leaking component has been repaired.
- c. The permittee shall not permit condensate and used oil to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.

(2) All condensate loading lines shall be equipped with fittings which are vapor tight.

(3) The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 0.001 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

The permittee has demonstrated compliance with this emissions limitation with the calculations submitted as part of the permit application associated with this permit (P0119251, dated 07/15/15). The emissions limitation was derived by multiplying the loading loss factor for each material loaded by the annual throughput of each material loaded to determine the annual emissions of each material loaded in pounds per year. Divide the sum of the annual emissions from all liquids loaded by 2,000 pounds per ton, and divide by 12 months per year to determine the monthly emissions averaged over a twelve-month rolling period. The loading loss factors were derived using AP-42, Section 5.2, "Transportation and Marketing of Petroleum Liquids", Equation 1 (6/08).

$$L_L = 12.46 \text{ SPM/T}$$

Where:

L_L = loading loss, pounds per 1000 gallons loaded;

S = saturation factor, 0.6 for submerged fill and 1.45 for splash;

P = vapor pressure of liquid loaded, in psia;

M = molecular weight of vapor, in lb/mole; and

T = temperature of bulk liquid, in °R.

g) Miscellaneous Requirements

- (1) None.

2. P001, Combustion Turbine

Operations, Property and/or Equipment Description:

29,517 HP (196.51 MMBtu/hr) natural gas-fired Solar Turbines Titan-250-30002S4 Compressor Turbine equipped with SoLoNOx technology and an oxidation catalyst

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	<p>Particulate matter 10 microns or less in size (PM₁₀) from shall not exceed 0.52 ton per month averaged over a 12-month rolling period.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.27 ton per month averaged over a 12-month rolling period.</p> <p>The hourly carbon monoxide (CO) BAT emission limitation established pursuant to this rule is equivalent to the hourly CO limitation established pursuant to OAC rule 3745-31-05(E).</p> <p>The annual CO emissions shall not exceed 7.81 tpy.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>The hourly volatile organic compound (VOC) BAT emission limitation established pursuant to this rule is equivalent to the hourly VOC emission limitation established pursuant to OAC rule 3745-31-05(E).</p> <p>The VOC emissions shall not exceed 3.32 tpy.</p> <p>See b)(2)a. below.</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM₁₀, SO₂, CO and VOC emissions from this air contaminant source since the potential to emit each is less than 10 tons/year.</p> <p>See b)(2)b. below.</p>
c.	ORC 3704.03(T)	NO _x emissions shall not exceed 2.60 tons per month averaged over a twelve month rolling period.
d.	OAC rule 3745-31-05(E) June 30, 2008	<p>CO emissions shall not exceed 13.15 lbs/hr and 0.65 ton per month averaged over a 12-month rolling period.</p> <p>VOC emissions shall not exceed 1.65 lbs/hr and 0.28 ton per month averaged over a 12-month rolling period.</p> <p>See b)(2)c. below.</p>
e.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stacks serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
f.	OAC rule 3745-17-11(B)(4)	PE shall not exceed 0.040 pound per million Btu of actual heat input.
g.	OAC rule 3745-18-06(F)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).
h.	OAC rule 3745-110-03(E)	This emission limitation is less stringent than the limitation listed pursuant to 40 CFR 60, Subpart KKKK.
i.	40 CFR Part 60, Subpart KKKK (40 CFR Part 60.4300 – 60.4420)	NO _x emissions shall not exceed 25 ppm at 15% O ₂ or 150 ng/J of useful output (1.2 lb/MWh) when operating at least

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 40 CFR 60.4305(a), this emissions unit has a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel.]	<p>75% of peak load.</p> <p>NO_x emissions shall not exceed 96 ppm at 15% O₂ or 590 ng/J of useful output (4.7 lb/MWh) when operating at less than 75% of peak load or when operating at temperatures less than 0 degrees Fahrenheit (°F).</p> <p>SO₂ emissions shall not exceed 110 nanograms per Joule (0.90 pounds per mega-Watt hour) or 26 ng SO₂/J (0.060 lb SO₂/mmBtu).</p> <p>[Table 1 to 40 CFR Part 60 Subpart KKKK and 60.4330(a)(1) and (a)(2)]</p> <p>See b)(2)d. below.</p>
j.	40 CFR Part 60, Subpart GG (40 CFR Part 60.330 – 60.335)	Stationary combustion turbines regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of 40 CFR Part 60, Subpart GG.
k.	40 CFR Part 60, Subpart A (40 CFR Part 60.1 – 60.19) [General Provisions]	<p>General Provisions.</p> <p>See b)(2)d. below.</p>

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP. It should be noted that the emission limitations established pursuant to OAC rule 3745-31-05(E) will remain applicable after the above SIP revisions are approved by U.S. EPA.
- c. Permit to Install and Operate (P0119274) for this air contaminant source takes into account the following voluntary emission limitations associated with the use of an oxidation catalyst to minimize emissions, [see c)(3)], as proposed by the

permittee for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A)(3).

i. CO emissions shall not exceed 13.15 lbs/hr (at temperatures above 0 °F) and 0.65 ton per month averaged over a twelve month rolling period.

ii. VOC emissions shall not exceed 1.65 lbs/hr (at temperatures above 0 °F) and 0.28 ton per month averaged over a twelve month rolling period.

d. The permittee shall demonstrate compliance with the applicable provisions of 40 CFR Part 60, Subpart KKKK in accordance with 40 CFR Part 60, Subpart A. Proposed amendments to 40 CFR Part 60, Subpart KKKK were published in the Federal Register on August 29, 2012. If final amendments to 40 CFR Part 60, Subpart KKKK become effective during the term of this PTIO, then the permittee shall comply with the effective version of 40 CFR Part 60, Subpart KKKK on the date that the new requirements go into effect, rather than the 40 CFR Part 60 Subpart KKKK requirements specified in this PTIO.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

(2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4333(a)	Utilize good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction
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(3) The permittee shall install and operate the turbine with an oxidation catalyst for the partial control of VOC and CO emissions whenever this emissions unit is in operation excluding startup and shutdown and shall maintain the turbine and oxidation catalyst in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(2) The permittee shall maintain monthly records of the following information:

a. the total hours of operation, including a breakdown of the following different temperature operating scenarios;

i. Ambient temperatures greater than 0°F;

ii. Ambient temperatures less than or equal to 0°F but greater than -20°F, and



- iii. Ambient temperatures less than or equal to -20°F.
 - b. the number of startups and shutdowns;
 - c. the monthly emissions of CO, VOC, and NO_x in tons per month;
 - d. the annual emissions of CO and VOC, in tons per year; and
 - e. beginning after the first 12 months of operation, the emissions of CO, VOC, and NO_x in the units of tons per month averaged over a 12-month rolling period.
- (3) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4340	Option to conduct performance testing for NO _x in lieu of installing a continuous emissions monitor.
60.4360	Exemption from determining the total sulfur content of the fuel being fired in the turbine as provided in §60.4365
60.4365(a)	Maintain current, valid purchase contract, tariff sheet or transportation contract that specifies the maximum total sulfur content for natural gas in continental areas is 20 grains of sulfur or less per 100 standard cubic feet

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4375(a)	Excess emissions reporting
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f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emissions Limitation:

PM₁₀ emissions shall not exceed 0.52 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$\frac{1.4276 \text{ lb}}{\text{hr}} * \frac{8,760 \text{ hr}}{\text{yr}} * \frac{\text{ton}}{2,000} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.52 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

1.4276 lbs/hr = PM₁₀ emission factor for combined operations (i.e., normal, startup, shutdown, and low temperatures) derived from AP-42, Section 3.1, Table 3.1-2a, revised 4/2000.

If required, compliance shall be demonstrated based upon emission tests performed in accordance with Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Methods 201 and 202 of 40 CFR Part 51, Appendix M to determine a site-specific emission factor

b. Emissions Limitation:

SO₂ from each emissions unit emissions shall not exceed 0.27 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$\frac{0.7354 \text{ lb}}{\text{hr}} * \frac{8,760 \text{ hr}}{\text{yr}} * \frac{\text{ton}}{2,000} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.27 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

0.7354 lb/hr = SO₂ emission factor for combined operations (i.e., normal, startup, shutdown, and low temperatures) derived from AP-42, Section 3.1, Table 3.1-2a, revised 4/2000

If required, compliance shall be demonstrated based upon emission tests performed in accordance with , Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A to determine a site-specific emission factor.

c. Emission Limitations:

CO emissions from each emissions unit shall not exceed 7.81 tpy, 13.15 lbs/hr and 0.65 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the hourly limitation above shall be based upon the emissions testing requirements specified in f)(2). Compliance with the annual and average monthly emission limitations shall be based on the record keeping requirements specified in d)(2).

d. Emission Limitations:

VOC emissions from each emissions unit shall not exceed 3.32 tpy, 1.65 lbs/hr and 0.28 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the hourly limitation shall be based upon the emissions testing requirements specified in f)(2). Compliance with the annual and average monthly emission limitation shall be based on the record keeping requirements specified in d)(2).

e. Emission Limitation:

NO_x emissions shall not exceed 2.60 tons per month averaged over a twelve month rolling period.

Applicable Compliance Method:

Compliance with the average monthly emission limitation shall be based on the record keeping requirements specified in d)(2).

f. Opacity Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance with the above emission limitation shall be determined in accordance with OAC rule 3745-17-03(B)(1).

g. Emission Limitation:

PE shall not exceed 0.040 pound per MMBTU of actual heat input.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based on the particulate emissions factor of 0.0066 lb/MMBtu for natural gas-fired turbines (AP-42, Section 3.1, Table 3.1-2a, revised 4/2000).

If required, compliance with the above emission limitation shall be determined in accordance with the methods and procedures as outlined in Methods 1 through 5 of 40 CFR Part 60, Appendix A.

h. Emission Limitations:

NO_x emissions shall not exceed 25 ppm at 15% O₂ or 150 ng/J of useful output (1.2 lb/MWh), when operating at least 75% of peak load.

NO_x emissions shall not exceed 96 ppm at 15% O₂ or 590 ng/J of useful output (4.7 lb/MWh) when operating at less than 75% of peak load or when operating at temperatures less than 0 °F.

Applicable Compliance Method:

Compliance shall be based upon the results of emissions testing as required in f)(2).

i. Emission Limitation:

SO₂ emissions shall not exceed 110 nanograms per Joule (0.90 pounds per mega-Watt hour) or 26 ng SO₂/J (0.060 lb SO₂/mmBtu)

Applicable Compliance Method:

Compliance shall be demonstrated by record keeping required in d)(3).

(2) Pursuant to 40 CFR 60.8, 60.4340(a), 60.4375(b) and 60.4400, OAC rules 3745-31-05(A)(3) and ORC 3704.03(T), the permittee shall conduct, or have conducted, emission testing for each emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after initial startup of this unit. Any subsequent performance tests shall be conducted in accordance with the frequencies specified in 40 CFR Part 60, Subpart KKKK and Ohio EPA Engineering Guide #16.

b. The emissions testing shall be conducted to demonstrate compliance with the NO_x, CO, and VOC emissions limitations identified in b)(1)d. and b)(1)i.

c. The following test methods shall be employed to demonstrate compliance with the allowable limits:

CO: Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A

VOC: Methods 1 through 4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A

NO_x: Methodology specified in 40 CFR Part 60 Subpart KKKK, and Appendix A.

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable

emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency or as required by 40 CFR 60.4400(b). Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- (3) The permittee shall comply with the applicable testing requirements of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4375(b)	Written report submittal of the performance testing results
60.4400(a)	Initial and subsequent performance tests for NO _x
60.4400(b)	Performance test loading conditions, number of test runs and minimum duration of test runs.
60.4400(b)(4)	Emission limit compliance requirements
60.4400(b)(6)	Performance test minimum ambient temperature requirement
60.4415	Initial and subsequent performance tests for SO ₂ (These requirements will not apply if the permittee qualifies for the 40 CFR 60.4365 exemption).



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g) Miscellaneous Requirements

(1) None.

3. P003, Gas Releases

Operations, Property and/or Equipment Description:

Gas releases due to periodic maintenance, compressor blowdowns, routine operations (startup and shutdown and reduced pressure demand events) and other miscellaneous releases

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	Fugitive volatile organic compound (VOC) emissions shall not exceed 1.65 tons per month averaged over a 12-month rolling period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall minimize the frequency and size of gas releases by conducting routine operation and maintenance activities in a manner consistent with safety and good air pollution control practices.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each year:



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- a. the number of gas releases;
 - b. concentration of total VOC in the gas stream using the most recent representative analysis;
 - c. the volume of gas emitted from all gas releases for each month, in scf;
 - d. the gas density, using the most recent representative analysis;
 - e. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the volume of gas emitted from all gas releases, in scf; and
 - f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of VOC emissions, in tons, and the monthly VOC emissions, in tons, averaged over each rolling, 12-month period.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

VOC emissions shall not exceed 1.65 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:
 - b. Compliance with the monthly VOC emissions limitation above shall be based on the record keeping requirements specified in d)(1).
- g) Miscellaneous Requirements
- (1) None.



4. Emissions Unit Group -Separator Vessel Group: P004,P005,

EU ID	Operations, Property and/or Equipment Description
P004	1,590 gallon separator vessel
P005	1,590 gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions from each emissions unit shall not exceed 0.01 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from these air contaminant sources since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L) pursuant to OAC rule 3745-21-09(L)(2)(b).

- (2) Additional Terms and Conditions
 - a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
 - c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m³ used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) None.
- e) Reporting Requirements
 - (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

VOC emissions from each emissions unit shall not exceed 0.01 ton per month averaged over a 12-month rolling period.



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Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses

g) Miscellaneous Requirements

- (1) None.

5. P006, Separator Vessel #3

Operations, Property and/or Equipment Description:

1,200 gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions shall not exceed 0.009 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L) pursuant to OAC rule 3745-21-09(L)(2)(b).

- (2) Additional Terms and Conditions
 - a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
 - c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m³ used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) None.
- e) Reporting Requirements
 - (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
VOC emissions shall not exceed 0.009 ton per month averaged over a 12-month rolling period.



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Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses.

g) Miscellaneous Requirements

- (1) None.

6. P007, Separator Vessel #4

Operations, Property and/or Equipment Description:

950 gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions shall not exceed 0.05 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L) pursuant to OAC rule 3745-21-09(L)(2)(b).

- (2) Additional Terms and Conditions
 - a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
 - c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m³ used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) None.
- e) Reporting Requirements
 - (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

VOC emissions shall not exceed 0.05 ton per month averaged over a 12-month rolling period.



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Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses.

g) Miscellaneous Requirements

- (1) None.

7. P008, Separator Vessel #5

Operations, Property and/or Equipment Description:

130 gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions shall not exceed 0.001 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L) pursuant to OAC rule 3745-21-09(L)(2)(b).

- (2) Additional Terms and Conditions
 - a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
 - c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m³ used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) None.
- e) Reporting Requirements
 - (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
VOC emissions shall not exceed 0.001 ton per month averaged over a 12-month rolling period.



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Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses.

g) Miscellaneous Requirements

- (1) None.

8. P009, Pipeline Pigging

Operations, Property and/or Equipment Description:

Pigging operations

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 6/30/2008	Fugitive volatile organic compounds (VOC) emissions shall not exceed 0.033 ton per month averaged over a 12-month, rolling period. See b)(2)a. below.
b.	OAC Rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A) do not apply to the VOC emissions from this source since the potential to emit is less than 10 tons/year. See b)(2) b. below.

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the

less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following information for each year:
 - a. the number of pigging events;
 - b. concentration of total VOC in the gas stream using the most recent representative analysis;
 - c. the gas density, using the most recent representative analysis;
 - d. the volume of gas emitted from all pigging events for each month, in scf;
 - e. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the volume of gas emitted from all pigging events, in scf; and
 - f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of VOC emissions, in tons, and the monthly VOC emissions in tons, averaged over each rolling, 12-month period.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:



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a. Emission Limitation:

VOC emissions shall not exceed 0.033 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the monthly VOC emissions limitation above shall be based on the record keeping requirements specified in d)(1).

g) Miscellaneous Requirements

(1) None.

9. P801, Equipment Leaks

Operations, Property and/or Equipment Description:

Fugitive emissions from components

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Development of an Ancillary Equipment Leak Detection and Repair Program See b)(2)a., d)(1) through d)(4), and e)(3). below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b below.
c.	40 CFR Part 60, Subpart OOOO (40 CFR 60.5360 – 60.5430)	See b)(2)c. below.
d.	40 CFR Part 60, Subpart A (40 CFR 60.1-60.19)	General Provisions See b)(2)c. below.

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. Proposed amendments to 40 CFR Part 60, Subpart OOOO were published in the Federal Register on September 18, 2015. If final amendments to 40 CFR Part 60, Subpart OOOOa become applicable to this emissions unit, then the permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart OOOOa and 40 CFR Part 60, Subpart A.

c) Operational Restrictions

(1) Ancillary Equipment Leak Detection and Repair Program

The permittee shall develop and implement a leak detection and repair program designed to monitor and repair leaks from ancillary equipment covered by this permit, including each pump, compressor seal, pressure relief device, connector, valve, flange, vent, cover, any bypass in the closed vent system, and each storage vessel in VOC service. As noted below in d)(1)b., a component is considered not in VOC service if it can be determined that the VOC content of the process fluid, which is contained in or contacts the piece of equipment, can be reasonably expected never to exceed 10% by weight. This program shall meet the following requirements:

- a. Leaks shall be detected by the use of either a "Forward Looking Infra-Red" (FLIR) camera or an analyzer meeting U.S. EPA Method 21 of 40 CFR Part 60, Appendix A.
- b. An initial monitoring of all components shall be completed within 180 days of startup and semi-annually thereafter for two consecutive semi-annual periods (1 year).
- c. If following two consecutive semi-annual periods, less than 2.0% of the ancillary equipment is determined to be leaking during the most recent semi-annual monitoring event, then the frequency of the monitoring can be reduced to annual.
- d. If more than or equal to 2.0% of the ancillary equipment are determined to be leaking during any one of the annual or annual monitoring events, then the frequency of monitoring shall be returned to semi-annually.
- e. The program shall require the first attempt at repair within 15 calendar days of determining a leak.

- f. The program shall require that the leaking component is repaired within 30 calendar days after the leak is detected, except as provided for in c)(1)h).
 - g. The program shall allow for the delayed repair of a leaking component following the language found in 40 CFR 60.5416(c)(5).
 - h. The program shall follow the Monitoring and Record Keeping requirements described in section d) of this permit.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) Within 180 days of startup, the permittee shall develop a list of components not in VOC service and the information or data used to demonstrate that the equipment is not in VOC service. This can be in the form of:
 - a. A written or electronic component log or identification on the facility piping and instrumentation drawings (PID).
 - b. A component is considered not in VOC service if it can be determined that the VOC content of the process fluid, which is contained in or contacts the piece of equipment, can be reasonably expected never to exceed 10% by weight.
 - (2) **Ancillary Equipment Leak Detection and Repair Program Monitoring and Record Keeping for Programs Utilizing FLIR Cameras**
 - a. Leaks shall be determined by visually observing each ancillary component through the FLIR camera to determine if leaks are visible.
 - b. The following information shall be recorded during each leak inspection:
 - i. the date the inspection was conducted;
 - ii. the name of the employee conducting the leak check;
 - iii. the identification of any component that was determined to be leaking;
 - iv. the date the first attempt to repair the component was made;
 - v. the reason the repair was delayed following the language found in 40 CFR 60.5416(c)(5);
 - vi. the date the component was repaired and determined to no longer be leaking;
 - vii. the total number of components that are leaking; and
 - viii. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of ancillary components capable of developing a leak, and multiplied by 100.



- c. The permittee shall maintain records that demonstrate the FLIR camera is operated and maintained in accordance with the manufacturer’s operation and maintenance instructions.
 - d. The records from each inspection and the dates each leak is detected and repaired shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.
- (3) Ancillary Equipment Leak Detection and Repair Program Monitoring and Record Keeping for Programs Utilizing a Method 21 Analyzer

- a. Leaks shall be measured by utilizing U.S. EPA Method 21 (40 CFR Part 60, Appendix A). All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm or 10,000 ppm (as applicable) for determining compliance.
- b. A component is considered to be leaking if the instrument reading is equal to or greater than:

pressure relief device in gas/vapor service	10,000 ppm
pressure relief device in light liquid service	10,000 ppm
pumps in light liquid service	10,000 ppm
compressor seal	500 ppm
sampling connection system*	*
open-ended valves or lines**	**
valves in gas/vapor and light liquid service	10,000 ppm
closed vent system	500 ppm
connectors	10,000 ppm
all other ancillary and associated equipment in VOC service	10,000 ppm

* must be equipped with a closed-purge, closed-loop, or closed-vent system

** must be equipped with a cap, blind flange, plug, or a second valve

- c. The following information shall be recorded during each leak inspection:
 - i. the date the inspection was conducted;
 - ii. the name of the employee conducting the leak check;
 - iii. the identification of any component that was determined to be leaking (company ID and component type (flange, pump, etc.);

- iv. the date the first attempt to repair the component was made;
 - v. the reason the repair was delayed following the language found in 40 CFR 60.5416(c)(5);
 - vi. the date the component was repaired and determined to no longer be leaking;
 - vii. the total number of components that are leaking; and
 - viii. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of ancillary components capable of developing a leak, and multiplied by 100.
- d. The permittee shall maintain records that demonstrate the Method 21 analyzer is operated and maintained in accordance with the manufacturer's operation and maintenance instructions.
 - e. In order to calibrate the analyzer, the following calibration gases shall be used:
 - i. zero air, which consists of less than 10 ppm of hydrocarbon in air; and
 - ii. a mixture of air and methane or n-hexane at a concentration of approximately, but less than, 10,000 ppm of methane or n-hexane.
 - f. The records from each inspection and the dates each leak is detected and repaired shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.
- (4) For equipment in VOC service, the permittee shall perform weekly inspections, when an operator is at the facility and when the facility is in operation, for indications of releases from the pressure relief valves, and any olfactory, visual or auditory indications of equipment leaks. As noted above in d)(1)b., a component is considered not in VOC service if it can be determined that the VOC content of the process fluid, which is contained in or contacts the piece of equipment, can be reasonably expected never to exceed 10% by weight. The positive indication of a release or a leak shall be noted in an operations log, along with the following information:
- a. the name of the inspector;
 - b. the date and time inspected; and
 - c. any corrective actions taken to minimize or eliminate the release or leak.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) Supplement to the PER for the Ancillary Equipment Leak Detection and Repair Program
For each inspection that occurred during the year, the permittee shall submit the following information with the annual PER from data collected by the ancillary equipment leak detection and repair program:
 - a. the date of the inspection;
 - b. the number of components determined to be leaking;
 - c. the company ID and component type (flange, pump, etc.) of each leaking component;
 - d. the total number of components at the site;
 - e. the percent of components determined to be leaking;
 - f. a list of all components that have not been repaired due to a delay of repair and the reason for the delay; and
 - g. a notification indicating if the permittee has changed future inspection frequencies based on the percent of components leaking.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. None.
- g) Miscellaneous Requirements
 - (1) None.