01/28/2026

Yes	TOXIC REVIEW
Yes	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Lisa Carty
Bluegrass Energy LLC
500 Alexander Park Drive
Suite 300
Princeton, NJ 08540

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 0124000413
Permit Number: P0137712
Permit Type: Initial Installation
County: Fayette

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 [illegible] 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 (Ohio EPA) ***Weekly Review and Public Notices*** website. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Ohio EPA document search webpage: ***eDocument Search***. 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:

Andrea Moore
Permitting Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Central Office
50 West Town St. Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published on the Ohio EPA ***Weekly Review and Public Notices*** website. You will be notified in writing 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 Ohio EPA DAPC, Central Office at (614) 644-2270.

Sincerely,

Robert Hodanbosi

Robert Hodanbosi
Chief, Division of Air Pollution Control

cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Ohio EPA-CDO; Kentucky

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: ***Weekly Review and Public Notices | Ohio Environmental Protection Agency*** or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-3037 email: ***HClerk@epa.ohio.gov***

Draft Air Pollution Permit-to-Install Initial Installation

Bluegrass Energy LLC
Jeffersonville-West Lancaster Rd
Jeffersonville, OH 43128

ID#: P0137712
Date of Action: 01/28/2026
Permit Desc: Initial permit-to-install for a power generation facility, including combustion turbines, emergency generators, an emergency firewater pump engine, and paved roadways and parking areas
The permit and complete instructions for requesting information or submitting comments may be obtained at: https://epa.ohio.gov/help-center/edocument-search/edocument-search by entering the permit # or by contacting: John Walker, Ohio EPA DAPC, Central Office, 50 West Town St. Suite 700 P.O. Box 1049, Columbus, OH 43216-1049. Ph: (614) 644-2270

STAFF DETERMINATION FOR THE APPLICATION TO CONSTRUCT

UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS

FOR BLUEGRASS ENERGY LLC

JEFFERSONVILLE, OHIO (Fayette County)

PERMIT NUMBER P0137712

Ohio Environmental Protection Agency

Division of Air Pollution Control

Lazarus Government Center

50 West Town St., Suite 700

Columbus, Ohio 43215

The Clean Air Act and regulations promulgated thereunder require that major air pollution sources undergoing construction or modification comply with all applicable Prevention of Significant Deterioration (PSD) provisions and nonattainment area New Source Review (NSR) requirements. The federal PSD rules govern emissions in attainment areas for major stationary sources, which are sources with the potential to emit 250 tons per year or more of any pollutant regulated under the Clean Air Act, or 100 tons per year or more if the source is included in one of 28 source categories. In nonattainment areas, the definition of major stationary source is one having at least 100 tons per year potential emissions. A major modification is a change resulting in a contemporaneous increase in emissions which exceeds the significance level of one or more pollutants. Any changes in actual emissions within a five-year period are considered to be contemporaneous. In addition, Ohio has incorporated the PSD and NSR requirements by rule under OAC Chapter 3745-31.

Both PSD and nonattainment rules require that certain analyses be performed before a facility can obtain a permit authorizing construction of a new major stationary source or major modification to a major stationary source. The principal requirements of the PSD regulations are:

1. Best Available Control Technology (BACT) review - A detailed engineering review must be performed to ensure that BACT is being installed for the pollutants that will have the potential-to-emit in significant amounts.
2. Ambient Air Quality Review - An analysis must be completed to ensure the continued maintenance of the National Ambient Air Quality Standards (NAAQS) and that any increases in ambient air pollutant concentrations do not exceed the incremental values set pursuant to the Clean Air Act.

For nonattainment areas, the requirements are:

1. Lowest Achievable Emissions Rate (LAER) - New major stationary sources must install controls that represent the lowest emission levels (highest control efficiency) that has been achieved in practice.
2. The emissions from the new major source must be offset by a reduction of existing emissions of the same pollutant by at least the same amount, and a demonstration must be made that the resulting air quality shows a net air quality benefit. This is more completely described in the Emission Offset Interpretative Ruling as found in Appendix S of 40 CFR Part 51.

3. The facility must certify that all major sources owned or operated in the state by the same entity are either in compliance with the existing State Implementation Plan (SIP) or are on an approved schedule resulting in full compliance with the SIP.

For rural ozone nonattainment areas, the requirements are:

1. LAER - New major sources must install controls that represent the lowest emissions levels (highest control efficiency) that has been achieved in practice.
2. The facility must certify that all major sources owned or operated in the state by the same entity are either in compliance with the existing SIP or are on an approved schedule resulting in full compliance with the SIP.

Finally, New Source Performance Standards (NSPS), National Emissions Standards for Hazardous Air Pollutants (NESHAP), Maximum Achievable Control Technology (MACT), SIP emission standards, and public participation requirements must be followed in all cases.

Site Description

Bluegrass Energy LLC will be located in Jeffersonville, Ohio (Fayette County). This area is classified as attainment for nitrogen oxides (NO_X), carbon monoxide (CO), ozone, particulate matter (PM) with a diameter equal to or less than 10 microns (PM_{10}), PM with a diameter equal to or less than 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), and lead.

Project Description

Bluegrass Energy LLC is proposing to construct a greenfield power generation facility (hereinafter "the Facility"). The Facility will supply dedicated power to a third-party customer that will be located on a nearby or adjacent property. The Facility will consist of simple-cycle turbines and ancillary equipment to provide a reliable generating capacity of at least 800 MW. To ensure their customer has reliable power output during all possible conditions, the ISO power output of the turbines will be greater than 800 MW.

Design of the Facility is not yet final, and two turbine sets are being considered. Bluegrass Energy LLC is requesting the flexibility to install either 32 GE LM2500/TM2500 Plus SAC turbines or 30 Solar Titan 350 turbines. The primary fuel burned in the turbines will be natural gas with ULSD as back-up.

The Facility will consist of the following air pollution emissions units:

- Thirty-two (32) GE LM2500/TM2500 Plus SAC turbines or thirty (30) Solar Titan 350 turbines;
- One (1) diesel-fired emergency firewater pump engine;
- Two (2) diesel-fired emergency generators;
- Three (3) diesel storage tanks; and
- One (1) aqueous ammonia storage tank; and
- Facility roadways and parking areas.

Emissions of NO_X, CO, VOC, PM, PM_{10}, $PM_{2.5}$, SO_2, H_2SO_4 mist, and greenhouse gases (GHGs) from the proposed facility are subject to PSD requirements. The turbines will be equipped with dry low NO_X burners and selective catalytic reduction (SCR) systems to reduce NO_X emissions. They will also be equipped with oxidation catalyst systems to control CO and VOC emissions.

New Source Review (NSR)/PSD Applicability

The Facility will generate emissions of NSR-regulated pollutants, including NO_X, CO, VOC, PM, PM_{10}, $PM_{2.5}$, SO_2, H_2SO_4 mist, and GHGs. The Facility is subject to the 250 ton per year major source threshold in an attainment area. As

shown in Table 1 below, the facility-wide potential-to-emit exceeds the 250 ton per year major source threshold for NO_X, CO, PM, PM_{10}, and $PM_{2.5}$. Non-Attainment New Source Review was not applicable, due to attainment status.

Table 1: Summary of Proposed Potential Emissions and Applicable Regulatory Thresholds

Pollutant	Annual Emissions (tpy)		PSD Major Source Threshold (tpy)	PSD Significant Emission Rate (tpy)	PSD Applies? (Yes/No)
	32 GE Turbines + Auxiliary Emissions[1]	30 Solar Turbines + Auxiliary Emissions[1]			
NO_X	588	593	250	40	Yes
CO	590	612	250	100	Yes
VOC	174	180	250	40	Yes
PM	422	276	250	25	Yes
PM_{10}	422	275	250	15	Yes
$PM_{2.5}$	332	275	250	10	Yes
SO_2	65	65	250	40	Yes
H_2SO_4	44	44	250	7	Yes
Lead	Negligible	Negligible	250	0.6	No
CO_2e	5,643,355	5,361,007	Not Applicable	75,000	Yes

[1]Auxiliary emissions include the firewater pump engine, emergency generators, diesel storage tanks, and facility roadways and parking areas

BACT Review

As part of the application for any source regulated under the PSD requirements, an analysis must be conducted that demonstrates that BACT will be employed for each pollutant that exceeds the PSD significant emission rate. In this specific case, the BACT analysis was conducted for NO_X, CO, VOC, PM, PM_{10}, $PM_{2.5}$, SO_2, H_2SO_4 mist, and GHGs.

The application used a "top down" approach to determine an appropriate level of control.

The basic steps to be followed are:

1) Identify all available potential control options;

2) Eliminate technically infeasible options;

3) Rank remaining technologies by control effectiveness;

4) Evaluate the feasible controls by performance and cost analysis; and

5) Select BACT

The results of the BACT analysis are provided in Tables 2 through 6 below. The BACT determinations for pollutants with a greater than 10 ton/yr potential-to-emit also meet the BAT requirements for NO_X, CO, VOC, PM_{10}, and/or $PM_{2.5}$ under OAC rule 3745-31-05(A)(3).

Table 2: Summary of BACT Emission Limits and Control Technologies for the Paved Roadways and Parking Areas (emissions unit F001)

Pollutant(s)	Emission Limit(s)	Control Technology
$PM/PM_{10}/PM_{2.5}$	No visible PE from any paved roadway or parking area except for a period of time not to exceed one minute during any 60-minute observation period.	Pave all roadways and parking areas and implement best management practices, including limiting vehicle speeds and water spraying or sweeping as needed based on daily inspections.

Table 3: Summary of BACT Emission Limits and Control Technologies for the GE LM2500/TM2500 Plus SAC Simple Cycle Turbines (emissions units P001 through P032)

Pollutant(s)	Fuel	Emission Limit(s)	Control Technology
NO_X	NG	3.0 ppmvd at 15% O_2	Dry low NO_X burners and SCR control system
	ULSD	9.0 ppmvd at 15% O_2	
CO	NG	5.0 ppmvd at 15% O_2	Oxidation catalyst system and good combustion practices
	ULSD	0.012 lb/MMBtu	
VOC	NG	3.0 ppmvd at 15% O_2	Oxidation catalyst system and good combustion practices
	ULSD	0.00041 lb/MMBtu	
$PM/PM_{10}/PM_{2.5}$	NG	0.0093 lb/MMBtu for PM/PM_{10} 0.0073 lb/MMBtu for $PM_{2.5}$ 10% opacity as a 6-minute average	Good combustion practices and the use of natural gas as the primary fuel
	ULSD	0.012 lb/MMBtu 10% opacity as a 6-minute average	
SO_2	NG	0.0014 lb/MMBtu	Good combustion practices and the use of low sulfur fuels
	ULSD	0.0015 lb/MMBtu	
H_2SO_4	NG	0.00095 lb/MMBtu	Good combustion practices and the use of low sulfur fuels
	ULSD	0.0010 lb/MMBtu	
GHGs	NG	1,147 lb CO_{2e}/MW-hr gross energy output at full load ISO conditions	Use of thermally efficient turbines, good combustion practices, and the use of natural gas as the primary fuel
	ULSD	1,360 lb CO_{2e}/MW-hr gross energy output at full load ISO conditions	

Table 4: Summary of BACT Emission Limits and Control Technologies for the Solar Titan 350 Simple Cycle Turbines (emissions units P033 through P062)

Pollutant(s)	Fuel	Emission Limit(s)	Control Technology
NO_X	NG	3.0 ppmvd at 15% O_2	Dry low NO_X burners and SCR control system
	ULSD	9.0 ppmvd at 15% O_2	
CO	NG	5.0 ppmvd at 15% O_2	Oxidation catalyst system and good combustion practices
	ULSD	0.00066 lb/MMBtu	
VOC	NG	3.0 ppmvd at 15% O_2	Oxidation catalyst system and good combustion practices
	ULSD	0.00041 lb/MMBtu	
$PM/PM_{10}/PM_{2.5}$	NG	0.0059 lb/MMBtu 10% opacity as a 6-minute average	Good combustion practices and the use of natural gas as the primary fuel
	ULSD	0.012 lb/MMBtu 10% opacity as a 6-minute average	
SO_2	NG	0.0014 lb/MMBtu	Good combustion practices and the use of low sulfur fuels
	ULSD	0.0015 lb/MMBtu	
H_2SO_4	NG	0.00095 lb/MMBtu	Good combustion practices and the use of low sulfur fuels
	ULSD	0.0010 lb/MMBtu	
GHGs	NG	1,067 lb CO_{2e}/MW-hr gross energy output at full load ISO conditions	Use of thermally efficient turbines, good combustion practices, and the use of natural gas as the primary fuel
	ULSD	1,553 lb CO_{2e}/MW-hr gross energy output at full load ISO conditions	

Table 5: Summary of BACT Emission Limits and Control Technologies for the 380 hp Diesel-Fired Emergency Firewater Pump Engine (emissions unit P063)

Pollutant(s)	Emission Limit(s)	Control Technology
NO_X and VOC	4.0 grams NO_X + NMHC/kW-hr	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices
CO	3.5 grams CO/kW-hr	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices
$PM/PM_{10}/PM_{2.5}$	0.20 grams PM/kW-hr	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices
SO_2	0.0015 lb/MMBtu	Good combustion practices and the use of low sulfur fuel
H_2SO_4	0.0023 lb/MMBtu	Good combustion practices and the use of low sulfur fuel

GHGs	21.8 tons of CO_2e per rolling, 12-month period	Good combustion practices and proper maintenance and operation

Table 6: Summary of BACT/BAT Emission Limits and Control Technologies for the 1,750 kWe Diesel-Fired Emergency Generators (emissions units P064 and P065)

Pollutant(s)	Emission Limit(s)	Control Technology
NO_X and VOC	6.4 grams NO_X + NMHC/kW-hr	Certified to meet Tier 2 standards and good combustion practices
CO	3.5 grams CO/kW-hr	Certified to meet Tier 2 standards and good combustion practices
$PM/PM_{10}/PM_{2.5}$	0.20 grams PM/kW-hr	Certified to meet Tier 2 standards and good combustion practices
SO_2	0.0015 lb/MMBtu	Good combustion practices and the use of low sulfur fuel
H_2SO_4	0.0023 lb/MMBtu	Good combustion practices and the use of low sulfur fuel
GHGs	839.8 tons of CO_2e per rolling, 12-month period	Good combustion practices and proper maintenance and operation

Modeling Review

The Facility contracted with Ramboll Americas Engineering Solutions, Inc. to conduct air dispersion modeling for carbon monoxide (CO), nitrogen oxides (NOx), particulate matter with a diameter equal to or less than 10 microns (PM_{10}), particulate matter with a diameter equal to or less than 2.5 microns ($PM_{2.5}$), volatile organic compounds (VOC), sulfur dioxide (SO_2), and air toxics. This portion of the document represents the conclusions of the review of the air dispersion modeling submittal accompanying the application.

Based on the potential emissions from the proposed facility, the project triggers Federal Prevention of Significant Deterioration (PSD) modeling review requirements for emissions of CO, NOx, PM_{10}, $PM_{2.5}$, VOC, and SO_2. The proposed facility will also emit the toxic air contaminants ammonia (NH_3), formaldehyde (HCHO), and sulfuric acid (H_2SO_4) in amounts exceeding the Ohio EPA modeling threshold of one ton per year. Toxic air contaminant modeling, and an analysis of the project's impacts on soils, vegetation and visibility, have been included. Modeling is not required for greenhouse gases, and quantitative analyses have been included to account for chemical transformation of NOx and VOC to ozone as well as the secondary formation of $PM_{2.5}$ from chemical precursors.

Two design options are currently being considered, so both were included in this analysis. The first design option ("GE Scenario") utilizes 32 turbines manufactured by General Electric, while the second option ("Solar Scenario") utilizes 30 turbines manufactured by Solar Turbines. Each scenario also includes the same set of auxiliary emissions sources at the facility, including an emergency fire pump (limited to 100 operating hours per year), two emergency black start generators (each limited to 500 operating hours per year),

RESULTS

Class I

The Facility is located approximately 338 km from the nearest Class I area (Mammoth Cave National Park in Kentucky). The project's potential impacts on visibility in Class I areas were evaluated in accordance with the document Federal Land Managers' Air Quality Related Values Work Group (FLAG): Phase 1 Report — Revised (2010) using the annual emissions over distance (Q/D) screening criteria method. The respective Q/D screening values for the GE Scenario and the Solar Scenario were both well below the recommended Class I analysis screening value of 10, so no additional Class I analyses are required or necessary for this project.

Class II

PSD Class II Significant Impact and State-Required Modeling Analyses for Criteria Pollutants

For comparison to Ohio's Generally Acceptable Incremental Impacts (GAIIs, as max 1-year values) and the PSD Class II Significant Impact Levels (SILs, as max 5-year average H1H values), the emissions of CO, NOx, $PM_{2.5}$, PM_{10}, and SO_2 from the Facility resulting from the proposed project were included in the modeling, performed using AERMOD v24142 for each design scenario. Five years of meteorological data processed with AERMET v24142 were used for the modeling. The modeling used surface meteorological data and upper air data for 2020-2024 collected from Wilmington Air Park in Clinton County, OH. Modeling of NO_X employed the Tier 2 Ambient Ratio Method (ARM2) with the default minimum and maximum ambient ratios of 0.5 and 0.9, respectively.

GE Scenario

No modeled results for the GE Scenario showed any exceedances of the respective GAIIs. However, modeled results for the GE Scenario did show exceedances of the NO_2 1-hour, $PM_{2.5}$ 24-hour, $PM_{2.5}$ annual, and PM_{10} 24-hour SILs. As such, cumulative modeling analyses were required for the GE Scenario against the respective applicable NAAQS and PSD Class II Increments for the criteria pollutants and averaging times for which the SILs were exceeded.

Solar Scenario

No modeled results for the Solar Scenario showed any exceedances of the respective GAIIs. However, modeled results for the Solar Scenario did show exceedances of the NO_2 1-hour, $PM_{2.5}$ 24-hour, and $PM_{2.5}$ annual SILs. As such, cumulative modeling analyses were required for the Solar Scenario against the respective applicable NAAQS and PSD Class II Increments for the criteria pollutants and averaging times for which the SILs were exceeded.

PSD Class II Cumulative Modeling Analyses for Criteria Pollutants

For comparison to the PSD Class II Increments and NAAQS, seven offsite facilities were included in the cumulative modeling analyses. The seven offsite facilities include Hi-Light (Ohio EPA Facility ID 0124000410), Rockies Express Pipeline – Washington CH Compressor Station (Ohio EPA Facility ID 0124000404), Eastern Gas Transmission and Storage, Inc. (Ohio EPA Facility ID 0124010117), Valero Renewable Fuels Company, LLC (Ohio EPA Facility ID 0124000132), TFO Tech Co Ltd (Ohio EPA Facility ID 0124000101), CMH205 Campus (Ohio EPA Facility ID 0124000412), and CMH220 Campus (Ohio EPA Facility ID 0124000411).

GE Scenario

The results of the cumulative modeling analyses for criteria pollutants (including background for NAAQS results) under the GE Scenario are summarized in Table 7. The cumulative modeling analyses under the GE Scenario did not show any valid modeled exceedances of the respective NAAQS or PSD Class II Increments.

Table 7: GE Scenario NAAQS and PSD Class II Increment Modeling Results

Pollutant (Averaging Time)	NAAQS (Modeled Result for GE Scenario) [% of NAAQS]	PSD Class II Increment (Modeled Result for GE Scenario) [% of Increment]
NO_2 (1-Hour)	188 µg/m³ (178.43494 µg/m³) [94.91%]	*N/A*
$PM_{2.5}$ (24-Hour)	35 µg/m³ (25.54529 µg/m³) [72.99%]	9 µg/m³ (8.37641 µg/m³) [93.07%]
$PM_{2.5}$ (Annual)	9 µg/m³ (8.91297 µg/m³) [99.03%]	4 µg/m³ (1.99770 µg/m³) [49.94%]
PM_{10} (24-Hour)	150 µg/m³ (81.24869 µg/m³) [54.17%]	30 µg/m³ (5.14497 µg/m³) [17.15%]

Solar Scenario

The results of the cumulative modeling analyses for criteria pollutants (including background for NAAQS results) under the Solar Scenario are summarized in Table 8. The cumulative modeling analyses under the Solar Scenario did not show any valid modeled exceedances of the respective NAAQS or PSD Class II Increments.

Table 8: Solar Scenario NAAQS and PSD Class II Increment Modeling Results

Pollutant (Averaging Time)	NAAQS (Modeled Result for Solar Scenario) [% of NAAQS]	PSD Class II Increment (Modeled Result for Solar Scenario) [% of Increment]
NO_2 (1-Hour)	188 µg/m³ (178.43495 µg/m³) [94.91%]	*N/A*
$PM_{2.5}$ (24-Hour)	35 µg/m³ (25.25708 µg/m³) [72.16%]	9 µg/m³ (8.37523 µg/m³) [93.06%]
$PM_{2.5}$ (Annual)	9 µg/m³ (8.54973 µg/m³) [95.00%]	4 µg/m³ (1.93480 µg/m³) [48.37%]

State-Required Air Dispersion Modeling Analyses for Toxic Air Contaminants

Toxic air contaminants as identified in OAC rule 3745-114-01 in excess of 1 ton per year were modeled to determine compliance with Ohio's Maximum Allowable Ground Level Concentrations (MAGLC). The project necessitated modeling against Ohio's MAGLC for ammonia (NH_3), formaldehyde (HCHO), and sulfuric acid (H_2SO_4). Ohio requires additional permit terms and conditions for any pollutant exceeding 80% of the MAGLC.

Five years of meteorological data processed with AERMET v24142 were used for the modeling. The modeling used surface meteorological data and upper air data for 2020-2024 collected from Wilmington Air Park in Clinton County, OH. The results of the modeling analyses for toxic air contaminants under each design scenario are summarized in Table 9. No modeled results under either design scenario showed any exceedances of the respective MAGLCs.

Table 9: Toxic Air Contaminant Modeling Results

Pollutant (Averaging Time)	MAGLC (Modeled Result for GE Scenario) [% of MAGLC]	MAGLC (Modeled Result for Solar Scenario) [% of MAGLC]
Ammonia (1-Hour)	414.59733 µg/m³ (25.43116 µg/m³) [6.13%]	414.59733 µg/m³ (32.29008 µg/m³) [7.79%]
Formaldehyde (1-Hour)	2.92434 µg/m³ (0.41093 µg/m³) [14.05%]	2.92434 µg/m³ (0.52174 µg/m³) [17.84%]
Sulfuric acid (1-Hour)	4.76191 µg/m³ (2.25978 µg/m³) [47.46%]	4.76191 µg/m³ (2.25509 µg/m³) [47.36%]

Secondary $PM_{2.5}$ Formation Analysis

An analysis of potential air quality impacts from secondary $PM_{2.5}$ formation related to the Facility's project under each design scenario was performed in accordance with U.S. EPA guidance. The U.S. EPA MERPs View Qlik Tool was used to identify the single source modeled impacts from the hypothetical source most representative of the Facility's project. For both design scenarios, the total projected PM2.5 results (including direct and secondary impacts, as well as background concentrations for the NAAQS) are expected to be below the $PM_{2.5}$ 24-hour NAAQS, the $PM_{2.5}$ 24-hour PSD Class II Increment, the $PM_{2.5}$ annual NAAQS, and the $PM_{2.5}$ annual PSD Class II Increment.

Secondary Ozone Formation Analysis

An analysis of potential air quality impacts from secondary ozone formation related to the Facility's project under each design scenario was performed in accordance with U.S. EPA guidance. The U.S. EPA MERPs View Qlik Tool was used to identify the single source modeled impacts from the hypothetical source most representative of the Facility's project. For both design scenarios, the total projected ozone impact is less than the area-specific screening value of 5 ppb, so the project will not contribute to an exceedance or violation of the 2015 8-hour ozone NAAQS.

Potential Class II Visibility Impacts Analysis

The nearest scenic Class II area, Deer Creek State Park, is located 26.4 km east of the proposed site. Ohio EPA is unaware of any visibility impairments to Class II areas caused by sources of similar size and emissions in the state. As such, the Facility's project is not expected to have any adverse impacts on visibility in Class II areas.

Potential Associated Growth Analysis

An analysis of potential growth of nearby residential, industrial, and commercial developments directly associated with the Facility's project was performed. A regional construction workforce is expected to be available in the area around the Facility's project. Additionally, it is expected that no induced commercial or industrial construction activities in the area will be necessary to support construction of the Facility. Once the Facility's project is operational, it is expected to use existing commercial and industrial facilities to meet its operational needs and will provide electricity to meet local and regional energy needs. Thus, no specific growth of nearby residential, industrial, and commercial developments is expected as a direct result of the Facility's project.

Potential Soils and Vegetation Impacts Analysis

An analysis of potential impacts on soils and vegetation resulting from the Facility's project under each design scenario was performed. Potential impacts on soils and vegetation would primarily result from emissions of NO_x, $PM_{2.5}$, and SO_2. As the modeling analyses showed that neither design scenario for the Facility's project will result in any exceedances of the NO_2 annual secondary NAAQS value (100 $\mu g/m^3$), the $PM_{2.5}$ 24-hour secondary NAAQS value (35 $\mu g/m^3$), the $PM_{2.5}$ annual secondary NAAQS value (15 $\mu g/m^3$), the PM_{10} 24-hour secondary NAAQS value (150 $\mu g/m^3$), or the SO_2 annual secondary NAAQS value (26.16 $\mu g/m^3$), the Facility's project is not expected to have any adverse impacts on local soils or vegetation.

Conclusion

Based upon the review of the permit to install application and the supporting documentation provided by the applicant, the Ohio EPA staff has determined the proposed installation will comply with all applicable State and Federal environmental regulations and the requirements for BACT are satisfied. Therefore, the Ohio EPA staff recommends a permit to install be issued to the Facility for the proposed installation.

Ohio Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Bluegrass Energy LLC

Facility ID:	0124000413
Permit Number:	P0137712
Permit Type:	Initial Installation
Issued:	01/28/2026
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Bluegrass Energy LLC

Table of Contents

Authorization

Facility ID:	0124000413
Facility Description:	
Application Number(s):	A0078784
Permit Number:	P0137712
Permit Type:	Permit-To-Install
Permit Fee:	$28,574.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	01/28/2026
Effective Date:	To be entered upon final issuance

This document constitutes issuance of a Permit-to-Install for the emissions unit(s) identified on the following page to:

Bluegrass Energy LLC
Jeffersonville-West Lancaster Rd
Jeffersonville, OH 43128

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

Ohio EPA DAPC, Central Office
50 West Town St. Suite 700
P.O. Box 1049
Columbus, OH 43216-1049
(614) 644-2270

The above-named entity is hereby granted this Permit-to-Install 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 and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

John Logue

Director

Authorization (continued)

Permit Number:P0137712

Permit Description:Initial permit-to-install for a power generation facility, including combustion turbines, emergency generators, an emergency firewater pump engine, and paved roadways and parking areas

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

Emissions Unit ID:	F001
Company Equipment ID:	BLGR-RD
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P063
Company Equipment ID:	BLGR-FWP-101
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name:Emergency Generators

Emissions Unit ID:	P064
Company Equipment ID:	BLGR-ENG-101
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P065
Company Equipment ID:	BLGR-ENG-201
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name:GE LM2500

Emissions Unit ID:	P001
Company Equipment ID:	BLGR-SCT-GE25-101
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	BLGR-SCT-GE25-102
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	BLGR-SCT-GE25-103
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	BLGR-SCT-GE25-104
Superseded Permit Number:	

General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	BLGR-SCT-GE25-105
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	BLGR-SCT-GE25-106
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	BLGR-SCT-GE25-107
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	BLGR-SCT-GE25-108
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	BLGR-SCT-GE25-109
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	BLGR-SCT-GE25-110
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P011
Company Equipment ID:	BLGR-SCT-GE25-111
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P012
Company Equipment ID:	BLGR-SCT-GE25-112
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P013
Company Equipment ID:	BLGR-SCT-GE25-113
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P014
Company Equipment ID:	BLGR-SCT-GE25-114
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P015
Company Equipment ID:	BLGR-SCT-GE25-115
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P016
Company Equipment ID:	BLGR-SCT-GE25-116
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Emissions Unit ID:	P017
Company Equipment ID:	BLGR-SCT-GE25-201
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P018
Company Equipment ID:	BLGR-SCT-GE25-202
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P019
Company Equipment ID:	BLGR-SCT-GE25-203
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P020
Company Equipment ID:	BLGR-SCT-GE25-204
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P021
Company Equipment ID:	BLGR-SCT-GE25-205
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P022
Company Equipment ID:	BLGR-SCT-GE25-206
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P023
Company Equipment ID:	BLGR-SCT-GE25-207
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P024
Company Equipment ID:	BLGR-SCT-GE25-208
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P025
Company Equipment ID:	BLGR-SCT-GE25-209
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P026
Company Equipment ID:	BLGR-SCT-GE25-210
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P027
Company Equipment ID:	BLGR-SCT-GE25-211
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P028
Company Equipment ID:	BLGR-SCT-GE25-212
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P029

Company Equipment ID:	BLGR-SCT-GE25-213
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P030
Company Equipment ID:	BLGR-SCT-GE25-214
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P031
Company Equipment ID:	BLGR-SCT-GE25-215
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P032
Company Equipment ID:	BLGR-SCT-GE25-216
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name:Solar Titan 350

Emissions Unit ID:	P033
Company Equipment ID:	BLGR-SCT-SO35-101
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P034
Company Equipment ID:	BLGR-SCT-SO35-102
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P035
Company Equipment ID:	BLGR-SCT-SO35-103
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P036
Company Equipment ID:	BLGR-SCT-SO35-104
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P037
Company Equipment ID:	BLGR-SCT-SO35-105
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P038
Company Equipment ID:	BLGR-SCT-SO35-106
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P039
Company Equipment ID:	BLGR-SCT-SO35-107
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P040
Company Equipment ID:	BLGR-SCT-SO35-108

Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P041
Company Equipment ID:	BLGR-SCT-SO35-109
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P042
Company Equipment ID:	BLGR-SCT-SO35-110
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P043
Company Equipment ID:	BLGR-SCT-SO35-111
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P044
Company Equipment ID:	BLGR-SCT-SO35-112
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P045
Company Equipment ID:	BLGR-SCT-SO35-113
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P046
Company Equipment ID:	BLGR-SCT-SO35-114
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P047
Company Equipment ID:	BLGR-SCT-SO35-115
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P048
Company Equipment ID:	BLGR-SCT-SO35-201
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P049
Company Equipment ID:	BLGR-SCT-SO35-202
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P050
Company Equipment ID:	BLGR-SCT-SO35-203
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P051
Company Equipment ID:	BLGR-SCT-SO35-204
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P052
Company Equipment ID:	BLGR-SCT-SO35-205
Superseded Permit Number:	

General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P053
Company Equipment ID:	BLGR-SCT-SO35-206
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P054
Company Equipment ID:	BLGR-SCT-SO35-207
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P055
Company Equipment ID:	BLGR-SCT-SO35-208
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P056
Company Equipment ID:	BLGR-SCT-SO35-209
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P057
Company Equipment ID:	BLGR-SCT-SO35-210
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P058
Company Equipment ID:	BLGR-SCT-SO35-211
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P059
Company Equipment ID:	BLGR-SCT-SO35-212
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P060
Company Equipment ID:	BLGR-SCT-SO35-213
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P061
Company Equipment ID:	BLGR-SCT-SO35-214
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P062
Company Equipment ID:	BLGR-SCT-SO35-215
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	HVLP = high volume, low pressure	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	LAER = lowest achievable emission rate	PM = particulate matter
BACT = Best Available Control Technology	lb(s)/hr = pound(s) per hour	PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	LDAR = leak detection and repair	$PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act	LPG = liquefied petroleum gas/propane	ppb = parts per billion
CAM = compliance assurance monitoring	MACT = maximum achievable control technology	ppm = parts per million
CEMS = continuous emissions monitoring system	MAGLC = maximum acceptable ground level concentration	PSD = Prevention of Significant Deterioration
CFC = chlorofluorocarbon	mg/m3 = milligrams per cubic meter	psi = pounds per square inch
CFR = Code of Federal Regulations	MM = million	psia = pounds per square inch absolute
CH_4 = methane	MMBtu = million British Thermal Units	PTE = potential-to-emit
CI = compression ignition	MSDS = material safety data sheet	PTI = Permit-to-Install
CO = carbon monoxide	MSW = municipal solid waste	PTIO = Permit-to-Install and Operate
CO_2 = carbon dioxide	NAAQS = National Ambient Air Quality Standard	PTO = Permit-to-Operate
COM = continuous opacity monitor	NESHAP = National Emission Standard for Hazardous Air Pollutants	PWR = process weight rate
DAPC = Division of Air Pollution Control	NG = natural gas	RACM = reasonably available control measures
DO/LAA = District Office/Local Air Agency	ng/m3 = nanograms per cubic meter	RACT = reasonably available control technology
dscf = dry standard cubic foot	NH_3 = ammonia	RATA = relative accuracy test audit
EAC = emissions activity category	NMHC = non-methane hydrocarbons	RTO = regenerative thermal oxidizer
eDocs = electronic documents database	NMOC = non-methane organic compound	SB265 = Senate Bill 265
ERAC = Environmental Review Appeals Commission	NO = nitrogen oxide	scfm = standard cubic feet per minute
ESP = electrostatic precipitator	NO_2 = nitrogen dioxide	SI = spark ignition
EU = emissions unit	NO_x = nitrogen oxides	SIP = State Implementation Plan
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NSPS = New Source Performance Standard	SO_2 = sulfur dioxide
FER = Fee Emissions Report	NSR = New Source Review	SSMP = startup, shutdown, and malfunction plan
FR = Federal Register	NTV = Non-Title V	TDS = total dissolved solids
GACT = generally achievable control technology	O&M = operation and maintenance	TLV = threshold limit value
GHG = greenhouse gases	OAC = Ohio Administrative Code	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	OC = organic compound	TPH = ton(s) per hour
H_2S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H_2SO_4 = sulfuric acid	ORC = Ohio Revised Code	TSP = total suspended particulates
HAP = hazardous air pollutant	Pb = lead	VE = visible particulate emissions
HCl = hydrogen chloride	PBR = Permit-By-Rule	VMT = vehicle miles traveled
HF = hydrogen fluoride	PCB = polychlorinated biphenyl	VOC = volatile organic compound
Hg = mercury	PE = particulate emissions	WPP = work practice plan
hp = horsepower	PEMS = predictive emissions monitoring system	µg/m3 = micrograms per cubic meter

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under state law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e), General Requirements

(3) Standard Term and Condition A.6.c), Compliance Requirements

(4) Standard Term and Condition A.8., Air Pollution Nuisance

(5) Standard Term and Condition A.9., Reporting Requirements

(6) Standard Term and Condition A.10., Applicability

(7) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(8) Standard Term and Condition A.14., Public Disclosure

(9) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(10) Standard Term and Condition A.16., Fees

(11) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

b) All terms and conditions designated in parts B. and C. of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the state and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under state law only, only if specifically identified in this permit as such.

3. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Central Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Central Office. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Central Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semiannual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after

reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Central Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located, or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the Ohio EPA DAPC, Central Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Central Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Central Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This permit-to-install is applicable only to the emissions unit(s) identified in the permit-to-install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a permit-to-install.

11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that

the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended once by twelve months if application is made to the Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shut down emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or any other reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

   a) None.

2. The following emissions units are subject to the 40 CFR Part 97 - Cross-State Air Pollution Rule (CSAPR): P001 through P062. The applicable CSAPR requirements will be incorporated in the initial Title V operating permit terms and conditions for these emissions units based on the U.S. EPA's "Title V Permit Guidance and Template for the Cross-State Air Pollution Rule."

3. The Ohio EPA has determined that this facility operates affected sources that are subject to the requirements of 40 CFR Part 63, Subpart ZZZZ, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines. Ohio EPA is not accepting the delegation authority to implement and enforce the area source requirements of this NESHAP standard. The area source requirements of this NESHAP standard are implemented and enforced by U.S. EPA, Region 5. The promulgated version of this NESHAP standard and the 40 CFR Part 63, General Provisions may be accessed via the Internet from the Electronic Code of Federal Regulations (e-CFR) website http://www.ecfr.gov/ or by contacting the Ohio EPA, DO/LAA.

4. This permit authorizes the installation and initial operation of only one of the two sets of simple cycle combustion turbines in this permit: GE (emissions units P001 through P032) or Solar Titan 350 (emissions units P033 through P062). For the GE option, emissions units P001 through P032 may be any combination of GE LM2500 and GE TM2500 Plus SAC models.

C. Emissions Unit Terms and Conditions

1. F001, BLGR-RD

Operations, Property and/or Equipment Description:

Paved roadways and parking areas

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 rules 3745-31-10 through 3745-31-20 and 3745-31-34 [Prevention of Significant Deterioration of Air Quality]	PM emissions shall not exceed 0.048 tons per rolling, 12-month period. PM_{10} emissions shall not exceed 0.010 tons per rolling, 12-month period. $PM_{2.5}$ emissions shall not exceed 0.0023 tons per rolling, 12-month period. No visible PE from any paved roadway or parking area except for a period of time not to exceed one minute during any 60-minute observation period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM_{10} and $PM_{2.5}$ emissions from this air contaminant source since the potentials to emit are less than 10 tons per year.

(2) Additional Terms and Conditions

a. As part of the BACT determination, the permittee shall:

i. Pave all in-plant roadways and parking areas; and

ii. Implement best management practices including limiting vehicle speeds and water spraying or sweeping as needed based on the daily inspections conducted in accordance with d)(1).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Except as otherwise provided in this section, the permittee shall perform daily inspections of each of the in-plant roadways and parking areas. The purpose of the inspections is to determine the need for implementing the control measures specified in b)(2)a. above. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for an in-plant roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended.

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

a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures; and

c. the dates the control measures were implemented.

(3) The permittee may, upon receipt of written approval from the Ohio EPA, DO/LAA, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

(2) The permittee shall submit deviation reports that identify any of the following occurrences:

a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. <u>Emissions Limitations</u>

PM emissions shall not exceed 0.048 tons per rolling, 12-month period.

PM_{10} emissions shall not exceed 0.010 tons per rolling, 12-month period.

$PM_{2.5}$ emissions shall not exceed 0.0023 tons per rolling, 12-month period.

<u>Applicable Compliance Method</u>

Compliance with the rolling, 12-month emissions limitations shall be determined based on the maximum vehicle miles traveled and the calculated emission factors from AP-42 Section 13.2.1. See the table below for road segments, maximum vehicle miles traveled, and calculated emission factors.

Road Segment	Emission Factor (lb/VMT)	Maximum Vehicle Miles Traveled per Year
Entrance to Employee Parking	PM - 0.022 PM_{10} - 0.0044 $PM_{2.5}$ - 0.0011	2,222
Employee Parking to Tanks	PM – 0.20 PM_{10} - 0.040 $PM_{2.5}$ - 0.010	77
To Fire Pump		1
To Diesel/Ammonia Unloading		154

b. Emissions Limitation

No visible PE from any paved roadway or parking area except for a period of time not to exceed one minute during any 60-minute observation period.

Applicable Compliance Method

If required, compliance shall be determined in accordance with Method 22 of 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.

2. Emissions Unit Group - GE LM2500 and/or GE TM2500 Plus SAC: P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P018, P019, P020, P021, P022, P023, P024, P025, P026, P027, P028, P029, P030, P031, and P032

EU ID	Operations, Property and/or Equipment Description
P001 through P032	GE LM2500 and/or GE TM2500 Plus SAC simple cycle turbines with dry low-NO_X burners, SCRs, and oxidation catalysts (CatOx) burning natural gas (323 MMBtu/hr for LM2500 and 314 MMBtu/hr for TM2500 Plus SAC) or ULSD (304 MMBtu/hr for LM2500 and 310 MMBtu/hr for TM2500 Plus SAC)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) See b)(1)l., d)(22) through d)(25), and e)(6) below.

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 rules 3745-31-10 through 3745-31-20 and 3745-31-34 [Prevention of Significant Deterioration of Air Quality]	**Short-Term Emissions Limitations when Burning Natural Gas (per turbine):** NO_X emissions shall not exceed 3.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.9 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 5.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.9 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 3.0 ppmvd at 15% O_2 and 1.2 pounds per hour, excluding periods of startup and shutdown. PM/PM_{10} emissions shall not exceed 0.0093 lb/MMBtu and 3.0 pounds per hour. $PM_{2.5}$ emissions shall not exceed 0.0073 lb/MMBtu and 2.35 pounds per hour. SO_2 emissions shall not exceed 0.0014 lb/MMBtu and 0.46 pounds per hour. H_2SO_4 emissions shall not exceed 0.00095 lb/MMBtu and 0.31 pounds per hour.

		CO_2e emissions shall not exceed 1,147 lb/MW-hr gross energy output at full load ISO conditions. Gross energy output is defined as the gross power output of the generators before accounting for any balance of plant loads. **Short-Term Emissions Limitations when Burning ULSD (per turbine):** NO_X emissions shall not exceed 9.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 14.4 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 0.012 lb/MMBtu and 3.76 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 0.00041 lb/MMBtu and 0.13 pounds per hour, excluding periods of startup and shutdown. $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.012 lb/MMBtu and 3.7 pounds per hour. SO_2 emissions shall not exceed 0.0015 lb/MMBtu and 0.47 pounds per hour. H_2SO_4 emissions shall not exceed 0.0010 lb/MMBtu and 0.31 pounds per hour. CO_2e emissions shall not exceed 1,360 lb/MW-hr gross energy output at full load ISO conditions. Gross energy output is defined as the gross power output of the generators before accounting for any balance of plant loads. **Visible PE Limitation:** Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average. **Rolling, 12-Month Emissions Limitations (per turbine):** 17.7 tons of NO_X emissions per rolling, 12-month period, including start-up and shutdown emissions. 18.3 tons of CO emissions per rolling, 12-month period, including start-up and shutdown emissions.

		5.4 tons of VOC emissions per rolling, 12-month period, including start-up and shutdown emissions. 13.2 tons of PM/PM_{10} emissions per rolling, 12-month period. 10.4 tons of $PM_{2.5}$ emissions per rolling, 12-month period. 2.0 tons of SO_2 emissions per rolling, 12-month period. 1.4 tons of H_2SO_4 emissions per rolling, 12-month period. 176,302 tons of CO_2e emissions per rolling, 12-month period. See b)(2)a. through b)(2)g., b)(2)j. through b)(2)o., c)(1), and c)(2) below.
b.	OAC rule 3745-31-05(A)(3) [BAT for NO_X, CO, PM_{10}, and $PM_{2.5}$]	The BAT requirements established pursuant to this rule are equivalent to the requirements established for NO_X, CO, PM_{10}, and $PM_{2.5}$ under OAC rules 3745-31-10 through 20.
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC and SO_2 emissions from this air contaminant source since the potentials to emit are less than 10 tons per year taking into account the emissions limitations established under OAC rules 3745-31-10 through 20.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
e.	OAC rule 3745-17-11(B)(4)	PE shall not exceed 0.040 lb/MMBtu actual heat input.
f.	OAC rule 3745-18-06(F)	SO_2 emissions shall not exceed 0.5 lb/MMBtu actual heat input. See b)(2)h. below.
g.	OAC rule 3745-110-03(K)(18)	Paragraphs (A) to (G) of OAC rule 3745-110-03 do not apply because this emissions unit is subject to BACT requirements for NO_X emissions.
h.	40 CFR Part 60, Subpart KKKKa [40 CFR 60.4300a – 60.4420a] [In accordance with 40 CFR 60.4305a(a), this emissions unit is a stationary combustion turbine with a base load rating greater than 10.7	SO_2 emissions from the turbine shall not exceed 0.90 lb/MWh of gross energy output or 0.060 lb SO_2/MMBtu heat input. See b)(2)i. and c)(3) below.

	gigajoules per hour (10 MMBtu/hr) that commenced construction after December 13, 2024.]	
i.	40 CFR Part 60, Subpart A [40 CFR 60.1 – 60.19]	The permittee shall comply with applicable requirements of the General Provisions of the Standards of Performance for New Stationary Sources in 40 CFR Part 60, Subpart A as they apply to the emissions unit regulated under 40 CFR Part 60, Subpart KKKKa.
j.	40 CFR Part 60, Subpart TTTTa [40 CFR 60.5508a – 60.5580a]	The requirements of this subpart do not apply to this stationary combustion turbine because it will not be capable of selling electricity to a utility power distribution system.
k.	OAC Chapter 3745-103 and 40 CFR Parts 72 and 75	See b)(2)j. and b)(2)m. below.
l.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(22) through d)(25) below.

(2) Additional Terms and Conditions

a. As part of the BACT determination for NO_X, the permittee shall install and maintain dry low-NO_X burners and an SCR system on this emissions unit. Operation of these control systems shall reduce NO_X emissions to the limitations specified in b)(1)a.

b. As part of the BACT determination for CO and VOC, the permittee shall install and operate an oxidation catalyst to reduce CO and VOC to the limitations specified in b)(1)a.

c. As part of the BACT determination for CO, VOC, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4, and GHG, the permittee shall operate the emissions unit in accordance with good combustion practices as recommended by the manufacturer. Good combustion practices include properly setting and controlling the air-to-fuel ratio and ensuring appropriate combustion zone residence time, temperature, and turbulence parameters.

d. As part of the BACT determination for SO_2 and H_2SO_4, the sulfur content of the fuel burned in this emissions unit shall not exceed the following:

i. 0.5 grains per 100 standard cubic feet of natural gas; and

ii. 15 ppm or 0.0015% sulfur by weight in ULSD (as specified by the ULSD standards for diesel fuel in 40 CFR 1090.305).

e. The permittee shall comply with the following emissions limitations during periods of startup and shutdown.

	Emissions Limitations During Startup and Shutdown (tons per rolling, 12-month period – per turbine)
NO_X	0.22
CO	1.2
VOC	0.048

f. "Startup" is defined as beginning with combustion turbine fuel ignition and ends when the oxidation catalyst bed and the SCR catalyst bed reach the minimum temperatures necessary for the oxidation catalyst and SCR to control CO, VOC, and NO_X emissions.

g. "Shutdown" is defined as the process of taking the turbine off-line and begins when the oxidation catalyst bed temperature or SCR catalyst bed temperature falls below the minimum temperature necessary for the oxidation catalyst and SCR to control CO, VOC, and NO_X emissions.

h. In accordance with OAC rule 3745-18-06(A), the emissions unit is exempt from the SO_2 emissions limitation established under OAC rule 3475-18-06(F) during any calendar day in which natural gas is the only fuel burned.

i. The permittee must not discharge into the atmosphere from the stationary combustion turbine any gases that contain an amount of NO_X that exceeds the applicable emissions standard that is determined in accordance with 40 CFR 60.4320a(b).

i. NO_X emissions standards from Table 1 to 40 CFR Part 60, Subpart KKKKa

Combustion Turbine Type	Input-Based NO_X Emission Standard (4-operating-hour rolling average basis)	Optional output-based NO_X standard (30-operating-day average basis)
Firing natural gas at utilization rate > 45 percent	15 ppm at 15 percent O_2 or 24 ng/J (0.055 lb/MMBtu)	0.20 kg/MWh-gross (0.43 lb/MWh-gross) 0.20 kg/MWh-net (0.44 lb/MWh-net)
Firing natural gas at utilization rate ≤ 45 percent	25 ppm at 15 percent O_2 or 40 ng/J (0.092 lb/MMBtu)	0.54 kg/MWh-gross (1.2 lb/MWh-gross) 0.56 kg/MWh-net (1.2 lb/MWh-net)
Firing non-natural gas	74 ppm at 15 percent O_2 or 120 ng/J (0.29 lb/MMBtu)	1.6 kg/MWh-gross (3.6 lb/MWh-gross) 1.6 kg/MWh-net (3.7 lb/MWh-net)
Operating at ambient temperatures less than 0°F, operated during periods of turbine tuning, and/or operating at less than 70 percent of the base load rating		N/A

ii. Alternative mass-based NO_X emission standards from Table 2 to 40 CFR Part 60, Subpart KKKKa

Combustion Turbine Type	4-hour emissions rate	12-calendar-month emissions rate
Natural gas	0.38 kg NO_X/MW-rated output (0.83 lb NO_X/MW-rated output)	0.44 tonne NO_X/MW-rated output (0.48 ton NO_X/MW-rated output)
Non-natural gas	0.82 kg NO_X/MW-rated output (1.8 lb NO_X/MW-rated output)	0.74 tonne NO_X/MW-rated output (0.81 ton NO_X/MW-rated output)

j. The permittee is subject to the requirements of OAC Chapter 3745-103 and 40 CFR Parts 72 and 75 concerning acid rain, so the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

k. The permittee shall use one of the following options to demonstrate ongoing compliance with the short-term CO emissions limitations:

i. Install, certify, maintain, and operate CEMS to determine the CO emission rates in the units of the applicable standards; or

ii. Install, calibrate, maintain, and operate continuous parameter monitoring to verify proper operation of the oxidation catalyst and SCR system.

l. The permittee shall use one of the following options to demonstrate ongoing compliance with the rolling, 12-month CO emissions limitations:

i. Install, certify, maintain, and operate CEMS to determine the CO emission rates in the units of the applicable standards; or

ii. If the emissions unit meets the applicability requirements of 40 CFR 75.19(a)(1), (a)(2), and (b), the low mass emissions (LME) excepted methodology in 40 CFR 75.19(c) may be used in lieu of CEMS. Even though the requirements of 40 CFR Part 75 do not apply to CO emissions, the permittee shall use the LME excepted methodology in 40 CFR 75.19(c) in addition to the CO-specific test methods and oxidation catalyst monitoring requirements that are specified in this permit.

m. If this emissions unit meets the applicability requirements of 40 CFR 75.19(a)(1), (a)(2), and (b), the LME excepted methodology in 40 CFR 75.19(c) may be used in lieu of CEMs or, if applicable, in lieu of methods under Appendices D, E, and G of 40 CFR Part 75, for the purpose of determining the unit heat input, NO_X, SO_2, CO_2, mass emissions, and the NO_X emission rate under 40 CFR Part 75. If the permittee of the qualifying emissions unit elects to use the LME methodology, it must be used for all parameters that are required to be monitored by the applicable program(s). For example, for an Acid Rain Program LME unit, the methodology must be used to estimate SO_2, NO_X, and CO_2 mass emissions, NO_X emission rate, and unit heat input.

n. The CEMS consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

o. Each continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be certified to meet the requirements of 40 CFR Part 75, Appendix B and Performance Specifications 2, 3 and 6. At least 45 days before commencing certification testing of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NO_X and CO_2 or O_2 emissions from the continuous monitor(s), in units of the applicable standard(s). The fuel flow monitor/meter shall be maintained as required in Part 75, Appendix D. Except as allowed below, the plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_X monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous NO_X monitoring system in accordance with the frequencies required

pursuant to 40 CFR Part 60 and 40 CFR Part 75; or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B, in lieu of frequencies required in 40 CFR Part 60. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits pursuant to 40 CFR Part 60, and linearity checks pursuant to 40 CFR Part 75; however, linearity checks completed pursuant to 40 CFR Part 75, Appendix B, may be substituted for the quarterly cylinder gas or relative accuracy audits required per 40 CFR Part 60.

p. Each continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3, 4 or 4a and 6. At least 45 days before commencing certification testing of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of CO and CO_2 or O_2 emissions from the continuous monitor(s), in units of the applicable standard(s). The fuel flow monitor/meter shall be maintained as required in Part 75, Appendix D. Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) in accordance with the frequencies required for monitoring systems subject to 40 CFR 60, or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; however, the quarterly cylinder gas audit and relative accuracy audit frequency requirements may be adjusted to coincide with linearity checks completed for continuous emissions monitoring systems subject to 40 CFR Part 75, Appendix B requirements.

c) Operational Restrictions

(1) The permittee shall burn only natural gas or ULSD in the emissions unit.

(2) The hours of operation while burning ULSD in emissions units P001 through P032 combined shall not exceed 3,861.3 hours per rolling, 12-month period. The hours of operation while burning ULSD in each emissions unit shall not exceed 500 hours per rolling, 12-month period.

(3) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall install, operate, and maintain the dry low-NO_X burners, SCR (including the ammonia injection system), and oxidation catalyst in accordance with the manufacturer's recommendations, instructions, and/or operating manual, with any modifications deemed

necessary by the permittee. The permittee shall maintain the SCR catalyst bed temperature below the maximum temperature established by the manufacturer.

(2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual for the dry low-NO_X burners, SCR, and oxidation catalyst, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the Ohio EPA, DO/LAA upon request.

(3) The permittee shall maintain the following information for maintenance and repairs performed on each dry low-NO_X burner, SCR, and oxidation catalyst:

a. the date of the maintenance and/or repair;

b. a description of the maintenance and/or repairs performed; and

c. the name of person(s) who performed the maintenance and/or repair.

(4) For each LME unit for which fuel-and-unit-specific NO_X emission rates are determined in accordance with 40 CFR 75.19(c)(1)(iv), the permittee shall develop and keep on-site a quality assurance plan which explains the procedures used to document proper operation of the dry low-NO_X burners and SCR system. The plan shall include the parameters monitored and the acceptable ranges for each parameter used to determine proper operation of the unit's NO_X controls.

Each parameter shall be monitored and recorded and kept for all operating hours in order to determine whether the NO_X controls are operating properly and to allow the determination of the correct NO_X emission rate. If one or more of the parameters is not within the acceptable range or at an acceptable value in a given operating hour, the fuel-and-unit specific emissions rates may not be used for that hour, and the appropriate default NO_X emission rate from Table LM-2 of 40 CFR Part 75 shall be reported instead.

(5) The permittee shall properly install, operate, and maintain equipment that continuously monitors and records the temperature of the oxidation catalyst. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within + 1 percent of the temperature being measured or + 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. Except during startup and shutdown, the temperature of the oxidation catalyst shall be maintained above the minimum temperature specified by the manufacturer. This information shall be correlated to the fuel flow meter to determine the amount of fuel consumed during each operating scenario (i.e., startup, shutdown, and normal operation when CO and VOC are controlled by the oxidation catalyst).

(6) Prior to the installation of a continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) meets the requirements of Performance Specifications 2 and 3 and the accuracy requirements of Performance Specification 6.

Following installation, the permittee shall document that the fuel flow monitor/meter meets 40 CFR Part 75 certification requirements prior to the performance specification test and

shall demonstrate how the pound per hour emissions of NO_X is being calculated stoichiometrically. The U.S. EPA shall certify that the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) meets the requirements under 40 CFR Part 75, which may be approved through the recommendation for certification by Ohio EPA to U.S. EPA. Once received, the letter(s)/document(s) of certification under 40 CFR Part 60 and certification or recommendation for certification under 40 CFR Part 75 shall be maintained on site and made available to the director (the appropriate Ohio EPA DO/LAA) upon request.

(7) The permittee shall install, operate and maintain equipment to continuously monitor and record NO_X and CO_2 or O_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) including, but not limited to:

a. emissions of NO_X in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of NO_X in pounds per hour and in units of the applicable standard(s) in the appropriate averaging period;

c. the percent CO_2 or O_2 with each cycle time of the analyzer, with no resolution less than one data point per minute required;

d. results of quarterly cylinder gas audits or linearity checks;

e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

g. hours of operation of the emissions unit, continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), and control equipment;

h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system);

i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system); and

j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(7)h. and d)(7)i.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(8) The permittee may operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of NO_X, in pounds per hour, as an alternative to conducting Performance Specification 6. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The

permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as the reason (if known) and the corrective actions taken (if any) for each such event.

(9) Prior to the installation of a continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate). The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous CO monitoring system meets the requirements of Performance Specifications 3 and 4 or 4a and the accuracy requirements of Performance Specification 6.

Following installation, the permittee shall document that the fuel flow monitor/meter meets 40 CFR Part 75 certification requirements prior to the performance specification test and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. Once received, the letter(s)/document(s) of certification shall be maintained on site and shall be made available to the director (the appropriate Ohio EPA DO/LAA) upon request.

(10) If the permittee chooses to demonstrate compliance with the CO emissions limitations established under OAC rules 3745-31-10 through 3745-31-20 through the use of a CEMS, the permittee shall operate and maintain equipment to continuously monitor and record CO and CO_2 or O_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to:

a. emissions of CO in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of CO in pounds per hour and in units of the applicable standard(s) in the appropriate averaging period;

c. the percent CO_2 or O_2 with each cycle time of the analyzer, with no resolution less than one data point per minute required;

d. results of quarterly cylinder gas audits;

e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

g. hours of operation of the emissions unit, continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), and control equipment;

h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system);

i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system); and

j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(10)h. and d)(10)i.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(11) The permittee may operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of CO in pounds per hour, as an alternative to conducting Performance Specification 6. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as the reason (if known) and the corrective actions taken (if any) for each such event.

(12) The permittee shall collect, record, and maintain measurements, data, records, and reports required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required by 40 CFR Part 75.

(13) The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

Fuel flow data that is substituted in accordance with 40 CFR Part 75, Appendix D, is not to be used when verifying compliance with the hourly emission limits. Hours in which fuel flow is substituted should be included as monitoring system downtime.

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

(15) The permittee shall demonstrate that the natural gas combusted in this emissions unit does not exceed potential emissions of 0.0014 lb SO_2/MMBtu using one of the following sources of information:

a. the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content is 0.5 grains of sulfur or less per 100 standard cubic feet of natural gas and has potential sulfur emissions of less than 0.0014 lb SO_2/MMBtu heat input; or

b. representative fuel sampling data which show that the sulfur content of the fuel does not exceed 0.0014 lb SO_2/MMBtu heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 of Appendix D to 40 CFR Part 75 is required.

(16) The permittee shall determine the gross calorific value of the natural gas at least once per calendar month in accordance with section 2.3.4 of Appendix D to 40 CFR Part 75.

(17) The permittee shall maintain records of the percentage of sulfur by weight, gross calorific value, and density of the ULSD burned in this emissions unit. This information shall be obtained in accordance with the one of the sampling options and frequencies described in

section 2.2.3 (flow proportional sampling), 2.2.4.1 (daily samples), 2.2.4.2 (sampling from a unit's storage tank), and 2.2.4.3 (sampling from each delivery) of 40 CFR Part 75, Appendix D.

(18) The permittee shall determine the hourly heat input rate to the combustion turbine, in MMBtu, from the fuel flow rate as determined in d)(13) and gross calorific value as determined in d)(16) for natural gas and d)(17) for ULSD. The heat input rate shall be calculated in accordance with the procedures in section 5 of 40 CFR Part 75, Appendix F.

(19) The permittee shall maintain daily records of the following information:

a. the period of time (start time and end time) that each turbine operated; and

b. the type of fuel combusted during operation.

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

a. the hours of operation, excluding startup and shutdown;

b. the hours of operation during startup;

c. the hours of operation during shutdown;

d. the hours of operation while burning ULSD;

e. the NO_X emissions, in pounds, as recorded by the CEMS;

f. the CO emissions, in pounds, as recorded by the CEMS or calculated using the LME excepted methodology in 40 CFR 75.19(c), as applicable;

g. the VOC emissions, in pounds, for startup/shutdown events calculated by multiplying the hours of operation of the combustion turbine in each startup and shutdown operating mode by the hourly VOC emissions rate for the corresponding mode of operation and type of fuel burned, i.e., 4.5 lb/hr during startup and 5.1 lb/hr during shutdown when burning natural gas and 0.12 lb/hr during startup and 0.12 lb/hr during shutdown when burning ULSD;

h. the VOC emissions, in pounds, excluding startup/shutdown emissions, calculated using the VOC emissions factors of 0.0038 lb/MMBtu when burning natural gas and 0.00041 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

i. the $PM/PM_{10}/PM_{2.5}$ emissions, in pounds, including startup/shutdown emissions, calculated using the $PM/PM_{10}/PM_{2.5}$ emission factors of 0.0093 lb/MMBtu when burning natural gas and 0.012 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

j. the SO_2 emissions, in pounds, including startup/shutdown emissions, for this emissions unit, calculated using the SO_2 emission factors of 0.0014 lb/MMBtu when burning natural gas and 0.0015 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

k. the total H_2SO_4 emissions, in pounds, including startup/shutdown emissions, calculated using the H_2SO_4 emission factors of 0.00095 lb/MMBtu when burning natural gas and 0.0010 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

l. the rolling, 12-month summation of the NO_X emissions for startup/shutdown events, in tons, calculated by adding the total NO_X emissions from startup/shutdown events for the present month as recorded in d)(20)e., plus the total NO_X emissions from startup/shutdown events for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

m. the rolling, 12-month summation of the NO_X, in tons, including start-up/shutdown emissions, calculated by adding the total NO_X emissions for the present month as recorded in d)(20)e., plus the total NO_X emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

n. the rolling, 12-month summation of the CO emissions for startup/shutdown events, in tons, calculated by adding the total CO emissions from startup/shutdown events for the present month as recorded in d)(20)f., plus the total CO emissions from startup/shutdown events for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

o. The rolling, 12-month summation of the CO, in tons, including startup/shutdown emissions, calculated by adding the total CO emissions for the present month as recorded in d)(20)f., plus the total CO emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

p. the rolling, 12-month summation of the VOC emissions, in tons, for startup/shutdown events calculated by adding the total VOC emissions from startup/shutdown events for the present month as recorded in d)(20)g., plus the total VOC emissions from startup/shutdown events for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

q. The rolling, 12-month summation of the VOC, in tons, including startup/shutdown emissions, calculated by adding the total VOC emissions for the present month as recorded in d)(20)g. and d)(20)h., plus the total VOC emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

r. The rolling, 12-month summation of the $PM/PM_{10}/PM_{2.5}$, in tons, including startup/shutdown emissions, calculated by adding the total $PE/PM_{10}/PM_{2.5}$ emissions for the present month as recorded in d)(20)i., plus the total $PE/PM_{10}/PM_{2.5}$ emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

s. The rolling, 12-month summation of the SO_2 emissions, in tons, including startup/shutdown emissions, calculated by adding the total SO_2 emissions for the present month as recorded in d)(20)j., plus the total SO_2 emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

t. The rolling, 12-month summation of the H_2SO_4, in tons, including startup/shutdown emissions, calculated by adding the total H_2SO_4 emissions for the present month as recorded in d)(20)k., plus the total H_2SO_4 emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

u. the rolling, 12-month hours of operation while burning ULSD; and

v. the rolling, 12-month hours operation while burning ULSD in emissions units P001 through P032 combined.

(21) The permittee shall maintain monthly records of the CO_{2e} emissions from the calendar month as well as the rolling, 12-month CO_{2e} emissions, in tons. The CO_{2e} emissions shall be calculated using the global warming potentials identified in Table A-1 of 40 CFR Part 98, the

CH_4 and N_2O emission factors identified in Table C-2 of 40 CFR Part 98, and one of the following options to calculate CO_2 emissions:

a. The procedures specified in 40 CFR Part 75, Appendix G using data from the continuous fuel flow monitor; or

b. The LME excepted methodology in 40 CFR 75.19(c) may be used if the emissions unit meets the applicability requirements of 40 CFR 75.19(a)(1), (a)(2), and (b).

(22) The PTI application for emissions units P001 through P032 and P063 through P065 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust systems, as specified by the permittee. The *Toxic Air Contaminant Statute*, ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01 using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year (tpy) using an air dispersion model such as AERSCREEN, AERMOD, ISCST3 or other Ohio EPA-approved model. The predicted one-hour maximum ground-level concentration results from the approved air dispersion model, were compared to the maximum acceptable ground-level concentration (MAGLC), calculated as described in Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A," as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional eight-hour workday and a 40-hour workweek, for each toxic compound emitted from the emissions units (as determined from the raw materials processed and/or coatings or other materials applied), has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices shall be used, if the chemical is listed; or

ii. Short-term exposure limit (STEL) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent eight-hour TLV.

b. The TLV is divided by 10 to adjust the standard from the working population to the general public.

c. This standard is adjusted to account for the duration of the exposure or the operating hours of the emissions units, that is, 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week.

d. The resulting calculation shall be used to determine the MAGLC:

$$\frac{TLV}{10} \times \frac{8}{24} \times \frac{5}{7} = 4\frac{TLV}{168} = MAGLC$$

e. The following summarizes the results of dispersion modeling for the significant toxic contaminants or *worst-case* scenario:

i. Toxic Contaminant: ammonia

TLV (mg/m^3): 17

Maximum Hourly Emission Rate (lb/hr): 3.56 lb/hr (per turbine for P001 – P032)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 25.4

MAGLC ($\mu g/m^3$): 400

ii. Toxic Contaminant: formaldehyde

TLV (mg/m^3): 0.12

Maximum Hourly Emission Rate (lb/hr): 0.06 lb/hr (per turbine for P001 – P032), 3.58E-05 lb/hr (for P063), and 9.25E-05 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 0.41

MAGLC ($\mu g/m^3$): 2.9

iii. Toxic Contaminant: sulfuric acid

TLV (mg/m^3): 0.2

Maximum Hourly Emission Rate (lb/hr): 0.31 lb/hr (per turbine for P001 – P032), 6.24E-03 lb/hr (for P063), and 4.82E-02 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 2.3

MAGLC ($\mu g/m^3$): 5

The permittee has demonstrated that emissions of ammonia, formaldehyde, and sulfuric acid from emissions units P001 through P032 and P063 through P065 are calculated to be less than 80 percent of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

(23) Prior to making any physical changes to or changes in the method of operation of the emissions units that could impact the parameters or values that were used in the predicted one-hour maximum ground-level concentration, the permittee shall re-model any change to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the one-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emissions of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled.

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application.

c. Physical changes to the emissions units or exhaust parameters (for example, increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines the *Toxic Air Contaminant Statute, ORC 3704.03(F),* will be satisfied for the above changes, Ohio EPA will not consider a change to be a *modification* under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), has been documented. If each change meets the definition of a *modification*, the permittee shall apply for and obtain a final PTI prior to the change. The director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground-level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(24) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the *Toxic Air Contaminant Statute* ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (for example, the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.).

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated per the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

c. A copy of the computer model run(s), that established the predicted one-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions.

d. The documentation of the initial evaluation of compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

(25) The permittee shall maintain a record of any change made to a parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(26) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 12-month NO_X, CO, VOC, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4, and/or CO_2e emissions limitations;

b. each period of time (start time and date, and end time and date) when the emissions unit was in operation, excluding periods of startup and shutdown, when the emissions were not controlled by the dry low-NO_X burners, oxidation catalyst, and/or SCR system; and

c. each period of time (start time and date, and end time and date) when the emissions unit was in operation, excluding periods of startup and shutdown, when any parameter monitored to verify the proper operation of the dry low-NO_X burners, oxidation catalyst, and SCR was outside of the acceptable range.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions in Section A of this permit.

(2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system):

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of NO_X emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, 40 CFR Parts 75 and 76, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of continuous CO_2 or O_2 monitoring system downtime and malfunction while the emissions unit was in operation.

c. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous NO_X and CO_2 or O_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total NO_X emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) while the emissions unit was in operation;

viii. results and date of quarterly cylinder gas audits or linearity checks;

ix. unless previously submitted, results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_X and CO_2 or O_2 monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(2)c.xi. and e)(2)c.xii.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

(3) If using the fuel flow rate to stoichiometrically calculate the pound per hour emissions of NO_X in place of Performance Specification 6 requirements, the permittee shall submit quarterly reports, to the appropriate Ohio EPA DO/LAA, that document the date, time, and duration of each malfunction and/or period of downtime of the continuous fuel flow monitoring system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event. If there was no downtime or malfunction of the continuous fuel flow monitoring system during any calendar quarter, the report shall be submitted so stating it. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.

(4) If the permittee chooses to demonstrate compliance with the CO emissions limitations established under OAC rules 3745-31-10 through 3745-31-20 through the use of a CEMS, the permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system):

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-21, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of continuous CO_2 or O_2 monitoring system downtime and malfunction while the emissions unit was in operation.

c. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous CO and CO_2 or O_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total CO emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO and CO_2 or O_2 monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), and/or emissions unit;

xii. the date, time, and duration of any downtime** of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)c.xi. and e)(4)c.xii.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

*where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

**each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

(5) If using the fuel flow rate to stoichiometrically calculate the pound per hour emissions of CO, in place of Performance Specification 6 requirements, the permittee shall submit quarterly reports, to the appropriate Ohio EPA DO/LAA, that document the date, time, and duration of each malfunction and/or period of downtime of the continuous fuel flow monitoring system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event. If there was no downtime or malfunction of the continuous fuel flow monitoring system during any calendar quarter, the report shall be submitted so stating it. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.

(6) The permittee shall submit annual reports that include any changes to any parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The report shall include:

a. The original model input.

b. The updated model input.

c. The reason for each change to any input parameter.

d. A summary of the results of the updated modeling, including the input changes.

e. A statement that the model results indicate that the one-hour maximum ground-level concentration is less than 80 percent of the MAGLC.

If no changes to the emissions, emissions units or the exhaust stacks have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(7) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).

f) Testing Requirements

(1) Within 60 days of achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup, the permittee shall conduct certification tests of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; Performance Specification 6 relative accuracy requirements; ORC section 3704.03(I); 40 CFR Part 75; and 40 CFR Part 60, Subpart KKKKa.

The permittee shall certify that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test and shall demonstrate how the pound per hour emissions of NO_X and CO_2 or O_2 will be calculated stoichiometrically from the fuel flow rate.

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA DO/LAA shall be notified 45 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA DO/LAA and one copy to Ohio

EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification, or recommendation for certification by Ohio EPA to U.S. EPA, of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; Performance Specification 6 relative accuracy requirements; ORC section 3704.03(I); and 40 CFR Part 75.

Ongoing compliance with the NO_X emissions limitations contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Recordkeeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

(2) If the permittee chooses to demonstrate compliance with the CO emissions limitations established under OAC rules 3745-31-10 through 3745-31-20 through the use of a CEMS, within 60 days of achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup, the permittee shall conduct certification tests of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate); Performance Specification 6 relative accuracy requirements; and ORC section 3704.03(I).

The permittee shall certify that the fuel flow monitor/meter is calibrated prior to the performance specification test and shall demonstrate how the pound per hour emissions of CO will be calculated stoichiometrically from the fuel flow rate.

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA DO/LAA shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA DO/LAA and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be granted upon determination by the Ohio EPA Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate); Performance Specification 6 relative accuracy requirements; and ORC section 3704.03(I).

Ongoing compliance with the CO emission limitations contained in this permit and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Recordkeeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

(3) The permittee shall conduct, or have conducted, emission testing for this 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 the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate initial compliance with the NO_X, CO, and VOC outlet concentrations; the lb/hr emissions limitations for NO_X, CO, VOC, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4; the lb/MMBtu emissions limitations/factors for CO (ULSD only), VOC, PE, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4; the lb/MW-hr emissions limitations for CO_2e; and the visible PE limitation.

c. The emission testing shall be conducted to demonstrate initial compliance with the NO_X emissions limitations specified in 40 CFR 60.4320a and the SO_2 emissions limitation specified in 40 CFR 60.4330a. If the permittee elects to demonstrate compliance with the SO_2 emission standard in 40 CFR 60.4330a using the methods specified in 40 CFR 60.4333a(d)(1), subsequent SO_2 performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test), except as provided by rule.

d. For emissions units using the LME excepted methodology in 40 CFR 75.19(c), emissions testing shall be conducted every 5 years (20 calendar quarters) to determine new fuel-and-unit-specific NO_X and CO emissions rates, unless changes in the fuel supply, physical changes to the unit, changes in the manner of unit operation, or changes to the emission controls occur which may cause a significant increase in the unit's actual NO_X and/or CO emission rate(s). The fuel-and-unit-specific NO_X and CO emission rates shall be determined in accordance with 40 CFR 75.19(c)(1)(iv).

e. Separate emission testing shall be performed for each fuel (i.e., natural gas and ULSD).

f. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

NO_X	Methods 1 through 4 and 7E or 20 of 40 CFR Part 60, Appendix A
CO	Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A
VOC	Methods 1 through 4 and 18 or 25A of 40 CFR Part 60, Appendix A
PE	Methods 1 through 5 of 40 CFR Part 60, Appendix A
$PM/PM_{10}/PM_{2.5}$	Methods 1 through 4 of 40 CFR Part 60, Appendix A and Methods 201A and 202 of 40 CFR Part 51, Appendix M
CO_2	Methods 1 through 4 of 40 CFR Part 60, Appendix A, mass balance calculations using ASTM D1945-03 (Standard Test Method for Analysis of Natural Gas by Gas Chromatography) and/or ASTM D1826-94 (Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter).
Visible PE	Method 9 of 40 CFR Part 60, Appendix A
SO_2	40 CFR 60.4415a
H_2SO_4	Methods 1 through 4 and 8 of 40 CFR Part 60, Appendix A

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

g. During the emissions testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio DO/LAA. Operational

conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.) or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under *worst case* conditions expected during the life of the permit. As part of the information provided in the Intent to Test (ITT) notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe *worst case* operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA DO/LAA that the proposed operating conditions constitute *worst case*. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

h. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an ITT notification to the appropriate Ohio EPA DO/LAA. The ITT 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 DO/LAA's refusal to accept the results of the emission test(s).

i. Personnel from the appropriate Ohio EPA DO/LAA 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.

j. A comprehensive written report on the results of the emissions test(s) shall be signed by the person(s) responsible for the tests and submitted to the appropriate Ohio EPA DO/LAA 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 DO/LAA.

(4) 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 Limitations

The permittee must not discharge into the atmosphere from the stationary combustion turbine any gases that contain an amount of NO_X that exceeds the applicable emissions standard that is determined in accordance with 40 CFR 60.4320a(b).

Applicable Compliance Method

Initial compliance shall be demonstrated through emissions testing performed in accordance with f)(3) above and the applicable requirements in 40 CFR 60.4333a and 60.4405a.

Ongoing compliance shall be demonstrated using a continuous emissions monitoring system (CEMS) for measuring NO_X emissions according to the provisions in 40 CFR 60.4345a. and 60.4350a.

b. Emissions Limitations

SO_2 emissions from the turbine shall not exceed 0.90 lb/MWh of gross energy output or 0.060 lb SO_2/MMBtu heat input.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(3) above using one of the methods specified in paragraphs 40 CFR 60.4333a(d)(1) through (4).

c. Emissions Limitations

NO_X emissions when firing natural gas shall not exceed 3.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.9 pounds per hour, excluding periods of startup and shutdown.

NO_X emissions when firing ULSD shall not exceed 9.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 14.4 pounds per hour, excluding periods of startup and shutdown.

CO emissions when firing natural gas shall not exceed 5.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.9 pounds per hour, excluding periods of startup and shutdown.

CO emissions when firing ULSD shall not exceed 0.012 lb/MMBtu and 3.76 pounds per hour, excluding periods of startup and shutdown.

VOC emissions when firing natural gas shall not exceed 3.0 ppmvd at 15% O_2 and 1.2 pounds per hour, excluding periods of startup and shutdown.

VOC emissions when firing ULSD shall not exceed 0.00041 lb/MMBtu and 0.13 pounds per hour, excluding periods of startup and shutdown.

PE shall not exceed 0.040 lb/MMBtu actual heat input.

PM/PM_{10} emissions when firing natural gas shall not exceed 0.0093 lb/MMBtu and 3.0 pounds per hour.

$PM_{2.5}$ emissions when firing natural gas shall not exceed 0.0073 lb/MMBtu and 2.35 pounds per hour.

$PM/PM_{10}/PM_{2.5}$ emissions when firing ULSD shall not exceed 0.012 lb/MMBtu and 3.7 pounds per hour.

SO_2 emissions when firing natural gas shall not exceed 0.0014 lb/MMBtu and 0.46 pounds per hour.

SO_2 emissions when firing ULSD shall not exceed 0.0015 lb/MMBtu and 0.47 pounds per hour.

SO_2 emissions when firing ULSD shall not exceed 0.5 lb/MMBtu actual heat input.

H_2SO_4 emissions when firing natural gas shall not exceed 0.00095 lb/MMBtu and 0.31 pounds per hour.

H_2SO_4 emissions when firing ULSD shall not exceed 0.0010 lb/MMBtu and 0.31 pounds per hour.

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(3) above and the monitoring and recordkeeping specified in d) above.

d. Emission Limitations

CO_2e emissions when firing natural gas shall not exceed 1,147 lb/MW-hr gross energy output at full load ISO conditions.

CO_2e emissions when firing ULSD shall not exceed 1,360 lb/MW-hr gross energy output at full load ISO conditions.

Applicable Compliance Method

Because more than 99% of the CO_2e emissions result from CO_2 emissions, compliance with the lb/MW-hr emissions limitations will be demonstrated if the CO_2 emissions measured during testing performed in accordance with f)(3) above do not exceed 1,147 lb/MW-hr when firing natural gas and 1,360 lb/MW-hr when firing ULSD.

e. Emissions Limitations

17.7 tons of NO_X per rolling, 12-month period, including start-up and shutdown emissions

18.3 tons of CO emissions per rolling, 12-month period, including start-up and shutdown emissions

5.4 tons of VOC emissions per rolling, 12-month period, including start-up and shutdown emissions

13.2 tons of PE/PM_{10} per rolling, 12-month period

10.4 tons of $PM_{2.5}$ per rolling, 12-month period

2.0 tons of SO_2 emissions per rolling, 12-month period

1.4 tons of H_2SO_4 emissions per rolling, 12-month period

176,302 tons of CO_2e emissions per rolling, 12-month period

NO_X emissions during startup and shutdown shall not exceed 0.22 tons per rolling, 12-month period.

CO emissions during startup and shutdown shall not exceed 1.2 tons per rolling, 12-month period.

VOC emissions during startup and shutdown shall not exceed 0.048 tons per rolling, 12-month period.

Applicable Compliance Method

Compliance with the rolling, 12-month emissions limitations shall be demonstrated in accordance with the monitoring and recordkeeping specified in d) above.

g) Miscellaneous Requirements

(1) None.

3. Emissions Unit Group - Solar Titan 350: P033, P034, P035, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P052, P053, P054, P055, P056, P057, P058, P059, P060, P061, and P062

EU ID	Operations, Property and/or Equipment Description
P033 through P062	Solar Titan 350 simple cycle turbines with dry low-NO_X burners, SCR, and oxidation catalysts (CatOx) burning natural gas (347 MMBtu/hr) or ULSD (361 MMBtu/hr)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) See b)(1)n., d)(22) through d)(25), and e)(6) below.

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 rules 3745-31-10 through 3745-31-20 and 3745-31-34 [Prevention of Significant Deterioration of Air Quality]	**Short-Term Emissions Limitations when Burning Natural Gas (per turbine):** NO_X emissions shall not exceed 3.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.7 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 5.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.8 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 3.0 ppmvd at 15% O_2 and 1.3 pounds per hour, excluding periods of startup and shutdown. $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.0059 lb/MMBtu and 2.1 pounds per hour. SO_2 emissions shall not exceed 0.0014 lb/MMBtu and 0.50 pounds per hour. H_2SO_4 emissions shall not exceed 0.00095 lb/MMBtu and 0.33 pounds per hour. CO_2e emissions shall not exceed 1,067 lb/MW-hr gross energy output at full load ISO conditions. Gross energy output is defined as the gross power output of the

		generators before accounting for any balance of plant loads. **Short-Term Emissions Limitations when Burning ULSD (per turbine):** NO_X emissions shall not exceed 9.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 44.0 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 0.00066 lb/MMBtu and 0.24 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 0.00041 lb/MMBtu and 0.15 pounds per hour, excluding periods of startup and shutdown. $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.012 lb/MMBtu and 4.3 pounds per hour. SO_2 emissions shall not exceed 0.0015 lb/MMBtu and 0.55 pounds per hour. H_2SO_4 emissions shall not exceed 0.0010 lb/MMBtu and 0.37 pounds per hour. CO_2e emissions shall not exceed 1,553 lb/MW-hr gross energy output at full load ISO conditions. Gross energy output is defined as the gross power output of the generators before accounting for any balance of plant loads. **Visible PE Limitation:** Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average. **Rolling, 12-Month Emissions Limitations (per turbine):** 19.1 tons of NO_X emissions per rolling, 12-month period, including start-up and shutdown emissions. 20.3 tons of CO emissions per rolling, 12-month period, including start-up and shutdown emissions. 6.0 tons of VOC emissions per rolling, 12-month period, including start-up and shutdown emissions. 9.2 tons of $PM/PM_{10}/PM_{2.5}$ emissions per rolling, 12-month period.

		2.2 tons of SO_2 emissions per rolling, 12-month period. 1.5 tons of H_2SO_4 emissions per rolling, 12-month period. 178,644 tons of CO_2e emissions per rolling, 12-month period. See b)(2)a. through b)(2)g., b)(2)k. through b)(2)p., c)(1), and c)(2) below.
b.	OAC rule 3745-31-05(A)(3) [BAT for NO_X and CO]	The BAT requirements established pursuant to this rule are equivalent to the requirements established for NO_X and CO under OAC rules 3745-31-10 through 20.
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC, PM_{10}, $PM_{2.5}$ and SO_2 emissions from this air contaminant source since the potentials to emit are less than 10 tons per year taking into account the emissions limitations established under OAC rules 3745-31-10 through 20.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
e.	OAC rule 3745-17-11(B)(4)	PE shall not exceed 0.040 lb/MMBtu actual heat input.
f.	OAC rule 3745-18-06(F)	SO_2 emissions shall not exceed 0.5 lb/MMBtu actual heat input. See b)(2)h. below.
g.	OAC rule 3745-110-03(K)(18)	Paragraphs (A) to (G) of OAC rule 3745-110-03 do not apply because this emissions unit is subject to BACT requirements for NO_X emissions.
h.	40 CFR Part 60, Subpart KKKKa [40 CFR 60.4300a – 60.4420a] [In accordance with 40 CFR 60.4305a(a), this emissions unit is a stationary combustion turbine with a base load rating greater than 10.7 gigajoules per hour (10 MMBtu/hr) that commenced construction after December 13, 2024.]	SO_2 emissions from the turbine shall not exceed 0.90 lb/MWh of gross energy output or 0.060 lb SO_2/MMBtu heat input. See b)(2)i. and c)(3) below.
i.	40 CFR Part 60, Subpart A [40 CFR 60.1 – 60.19]	The permittee shall comply with applicable requirements of the General Provisions of the Standards of Performance for New Stationary Sources in 40 CFR Part 60, Subpart A as they apply to the emissions

		unit regulated under 40 CFR Part 60, Subpart KKKKa.
j.	40 CFR Part 60, Subpart TTTTa [40 CFR 60.5508a – 60.5580a]	The requirements of this subpart do not apply to this stationary combustion turbine because it will not be capable of selling electricity to a utility power distribution system.
k.	40 CFR Part 63, Subpart YYYY [40 CFR 63.6080 – 60.6175] [In accordance with 40 CFR 63.6090(a), this emissions unit is a new stationary combustion turbine located at a major source of HAP emissions.]	Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent oxygen, except during turbine startup. In accordance with 40 CFR 63.6175, startup ends when the turbine has reached stable operation or after 1 hour, whichever is less.
l.	40 CFR Part 63, Subpart A [40 CFR 63.1 – 63.16]	Table 7 to 40 CFR Part 63, Subpart YYYY-"Applicability of General Provisions to Subpart YYYY" identifies which parts of the General Provisions in 40 CFR Part 63.1 – 63.16 apply.
m.	OAC Chapter 3745-103 and 40 CFR Parts 72 and 75	See b)(2)j. and b)(2)m. below.
n.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(22) through d)(25) below.

(2) Additional Terms and Conditions

a. As part of the BACT determination for NO_X, the permittee shall install and maintain dry low-NO_X burners and an SCR system on this emissions unit. Operation of these control systems shall reduce NO_X emissions to the limitations specified in b)(1)a.

b. As part of the BACT determination for CO and VOC, the permittee shall install and operate an oxidation catalyst to reduce CO and VOC to the limitations specified in b)(1)a.

c. As part of the BACT determination for CO, VOC, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4, and GHG, the permittee shall operate the emissions unit in accordance with good combustion practices as recommended by the manufacturer. Good combustion practices include properly setting and controlling the air-to-fuel ratio and ensuring appropriate combustion zone residence time, temperature, and turbulence parameters.

d. As part of the BACT determination for SO_2 and H_2SO_4, the sulfur content of the fuel burned in this emissions unit shall not exceed the following:

i. 0.5 grains per 100 standard cubic feet of natural gas; and

ii. 15 ppm or 0.0015% sulfur by weight in ULSD (as specified by the ULSD standards for diesel fuel in 40 CFR 1090.305).

e. The permittee shall comply with the following emissions limitations during periods of startup and shutdown.

	Emissions Limitations During Startup and Shutdown (tons per rolling, 12-month period – per turbine)
NO_X	0.31
CO	3.7
VOC	0.27

f. "Startup" is defined as beginning with combustion turbine fuel ignition and ends when the oxidation catalyst bed and the SCR catalyst bed reach the minimum temperatures necessary for the oxidation catalyst and SCR to control CO, VOC, and NO_X emissions.

g. "Shutdown" is defined as the process of taking the turbine off-line and begins when the oxidation catalyst bed temperature or SCR catalyst bed temperature falls below the minimum temperature necessary for the oxidation catalyst and SCR to control CO, VOC, and NO_X emissions.

h. In accordance with OAC rule 3745-18-06(A), the emissions unit is exempt from the SO_2 emissions limitation established under OAC rule 3475-18-06(F) during any calendar day in which natural gas is the only fuel burned.

i. The permittee must not discharge into the atmosphere from the stationary combustion turbine any gases that contain an amount of NO_X that exceeds the applicable emissions standard that is determined in accordance with 40 CFR 60.4320a(b).

i. NO_X emissions standards from Table 1 to 40 CFR Part 60, Subpart KKKKa

Combustion Turbine Type	Input-Based NO_X Emission Standard (4-operating-hour rolling average basis)	Optional output-based NO_X standard (30-operating-day average basis)
Firing natural gas at utilization rate > 45 percent	15 ppm at 15 percent O_2 or 24 ng/J (0.055 lb/MMBtu)	0.20 kg/MWh-gross (0.43 lb/MWh-gross) 0.20 kg/MWh-net (0.44 lb/MWh-net)
Firing natural gas at utilization rate ≤ 45 percent	25 ppm at 15 percent O_2 or 40 ng/J (0.092 lb/MMBtu)	0.54 kg/MWh-gross (1.2 lb/MWh-gross) 0.56 kg/MWh-net (1.2 lb/MWh-net)
Firing non-natural gas	74 ppm at 15 percent O_2 or 120 ng/J (0.29 lb/MMBtu)	1.6 kg/MWh-gross (3.6 lb/MWh-gross) 1.6 kg/MWh-net (3.7 lb/MWh-net)
Operating at ambient temperatures less than 0°F, operated during periods of turbine tuning, and/or operating at less than 70 percent of the base load rating		N/A

ii. Alternative mass-based NO_X emission standards from Table 2 to 40 CFR Part 60, Subpart KKKKa

Combustion Turbine Type	4-hour emissions rate	12-calendar-month emissions rate
Natural gas	0.38 kg NO_X/MW-rated output (0.83 lb NO_X/MW-rated output)	0.44 tonne NO_X/MW-rated output (0.48 ton NO_X/MW-rated output)
Non-natural gas	0.82 kg NO_X/MW-rated output (1.8 lb NO_X/MW-rated output)	0.74 tonne NO_X/MW-rated output (0.81 ton NO_X/MW-rated output)

j. The permittee is subject to the requirements of OAC Chapter 3745-103 and 40 CFR Parts 72 and 75 concerning acid rain, so the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

k. The permittee shall use one of the following options to demonstrate ongoing compliance with the short-term CO emissions limitations:

i. Install, certify, maintain, and operate CEMS to determine the CO emission rates in the units of the applicable standards; or

ii. Install, calibrate, maintain, and operate continuous parameter monitoring to verify proper operation of the oxidation catalyst and SCR system.

l. The permittee shall use one of the following options to demonstrate ongoing compliance with the rolling, 12-month CO emissions limitations:

i. Install, certify, maintain, and operate CEMS to determine the CO emission rates in the units of the applicable standards; or

ii. If the emissions unit meets the applicability requirements of 40 CFR 75.19(a)(1), (a)(2), and (b), the low mass emissions (LME) excepted methodology in 40 CFR 75.19(c) may be used in lieu of CEMS. Even though the requirements of 40 CFR Part 75 do not apply to CO emissions, the permittee shall use the LME excepted methodology in 40 CFR 75.19(c) in addition to the CO-specific test methods and oxidation catalyst monitoring requirements that are specified in this permit.

m. If this emissions unit meets the applicability requirements of 40 CFR 75.19(a)(1), (a)(2), and (b), the LME excepted methodology in 40 CFR 75.19(c) may be used in lieu of CEMs or, if applicable, in lieu of methods under Appendices D, E, and G of 40 CFR Part 75, for the purpose of determining the unit heat input, NO_X, SO_2, CO_2, mass emissions, and the NO_X emission rate under 40 CFR Part 75. If the permittee of the qualifying emissions unit elects to use the LME methodology, it must be used for all parameters that are required to be monitored by the applicable program(s). For example, for an Acid Rain Program LME unit, the methodology must be used to estimate SO_2, NO_X, and CO_2 mass emissions, NO_X emission rate, and unit heat input.

n. The CEMS consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

o. Each continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be certified to meet the requirements of 40 CFR Part 75, Appendix B and Performance Specifications 2, 3 and 6. At least 45 days before commencing certification testing of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NO_X and CO_2 or O_2 emissions from the continuous monitor(s), in units of the applicable standard(s). The fuel flow monitor/meter shall be maintained as required in Part 75, Appendix D. Except as allowed below, the plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_X monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous NO_X monitoring system in accordance with the frequencies required

pursuant to 40 CFR Part 60 and 40 CFR Part 75; or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B, in lieu of frequencies required in 40 CFR Part 60. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits pursuant to 40 CFR Part 60, and linearity checks pursuant to 40 CFR Part 75; however, linearity checks completed pursuant to 40 CFR Part 75, Appendix B, may be substituted for the quarterly cylinder gas or relative accuracy audits required per 40 CFR Part 60.

p. Each continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3, 4 or 4a and 6. At least 45 days before commencing certification testing of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of CO and CO_2 or O_2 emissions from the continuous monitor(s), in units of the applicable standard(s). The fuel flow monitor/meter shall be maintained as required in Part 75, Appendix D. Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) in accordance with the frequencies required for monitoring systems subject to 40 CFR 60, or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; however, the quarterly cylinder gas audit and relative accuracy audit frequency requirements may be adjusted to coincide with linearity checks completed for continuous emissions monitoring systems subject to 40 CFR Part 75, Appendix B requirements.

c) Operational Restrictions

(1) The permittee shall burn only natural gas or ULSD in the emissions unit.

(2) The hours of operation while burning ULSD in emissions units P033 through P062 combined shall not exceed 3,620.0 hours per rolling, 12-month period. The hours of operation while burning ULSD in each emissions unit shall not exceed 500 hours per rolling, 12-month period.

(3) The permittee shall maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer. The permittee is not required to use the catalyst inlet temperature data that is recorded during engine startup in the calculations of the 4-hour rolling average catalyst inlet temperature.

(4) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).

(5) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall install, operate, and maintain the dry low-NO_X burners, SCR (including the ammonia injection system), and oxidation catalyst in accordance with the manufacturer's recommendations, instructions, and/or operating manual, with any modifications deemed necessary by the permittee. The permittee shall maintain the SCR catalyst bed temperature below the maximum temperature established by the manufacturer.

(2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual for the dry low-NO_X burners, SCR, and oxidation catalyst, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the Ohio EPA, DO/LAA upon request.

(3) The permittee shall maintain the following information for maintenance and repairs performed on each dry low-NO_X burner, SCR, and oxidation catalyst:

a. the date of the maintenance and/or repair;

b. a description of the maintenance and/or repairs performed; and

c. the name of person(s) who performed the maintenance and/or repair.

(4) For each LME unit for which fuel-and-unit-specific NO_X emission rates are determined in accordance with 40 CFR 75.19(c)(1)(iv), the permittee shall develop and keep on-site a quality assurance plan which explains the procedures used to document proper operation of the dry low-NO_X burners and SCR system. The plan shall include the parameters monitored and the acceptable ranges for each parameter used to determine proper operation of the unit's NO_X controls.

Each parameter shall be monitored and recorded and kept for all operating hours in order to determine whether the NO_X controls are operating properly and to allow the determination of the correct NO_X emission rate. If one or more of the parameters is not within the acceptable range or at an acceptable value in a given operating hour, the fuel-and-unit specific emissions rates may not be used for that hour, and the appropriate default NO_X emission rate from Table LM-2 of 40 CFR Part 75 shall be reported instead.

(5) The permittee shall properly install, operate, and maintain equipment that continuously monitors and records the temperature of the oxidation catalyst. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within + 1 percent of the temperature being measured or + 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. Except during startup and shutdown, the temperature of the oxidation catalyst shall be maintained above the minimum temperature specified by the manufacturer. This information shall be correlated to the fuel flow meter to determine the amount of fuel consumed during each operating scenario (i.e., startup, shutdown, and normal operation when CO and VOC are controlled by the oxidation catalyst).

(6) Prior to the installation of a continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3. The Ohio EPA, Central Office

shall approve the proposed sampling site and certify that the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) meets the requirements of Performance Specifications 2 and 3 and the accuracy requirements of Performance Specification 6.

Following installation, the permittee shall document that the fuel flow monitor/meter meets 40 CFR Part 75 certification requirements prior to the performance specification test and shall demonstrate how the pound per hour emissions of NO_X is being calculated stoichiometrically. The U.S. EPA shall certify that the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) meets the requirements under 40 CFR Part 75, which may be approved through the recommendation for certification by Ohio EPA to U.S. EPA. Once received, the letter(s)/document(s) of certification under 40 CFR Part 60 and certification or recommendation for certification under 40 CFR Part 75 shall be maintained on site and made available to the director (the appropriate Ohio EPA DO/LAA) upon request.

(7) The permittee shall install, operate and maintain equipment to continuously monitor and record NO_X and CO_2 or O_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) including, but not limited to:

a. emissions of NO_X in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of NO_X in pounds per hour and in units of the applicable standard(s) in the appropriate averaging period;

c. the percent CO_2 or O_2 with each cycle time of the analyzer, with no resolution less than one data point per minute required;

d. results of quarterly cylinder gas audits or linearity checks;

e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

g. hours of operation of the emissions unit, continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), and control equipment;

h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system);

i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system); and

j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(7)h. and d)(7)i.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(8) The permittee may operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of NO_X, in pounds per hour, as an alternative to conducting Performance Specification 6. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as the reason (if known) and the corrective actions taken (if any) for each such event.

(9) Prior to the installation of a continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate). The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous CO monitoring system meets the requirements of Performance Specifications 3 and 4 or 4a and the accuracy requirements of Performance Specification 6.

Following installation, the permittee shall document that the fuel flow monitor/meter meets 40 CFR Part 75 certification requirements prior to the performance specification test and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. Once received, the letter(s)/document(s) of certification shall be maintained on site and shall be made available to the director (the appropriate Ohio EPA DO/LAA) upon request.

(10) If the permittee chooses to demonstrate compliance with the CO emissions limitations established under OAC rules 3745-31-10 through 3745-31-20 through the use of a CEMS, the permittee shall operate and maintain equipment to continuously monitor and record CO and CO_2 or O_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to:

a. emissions of CO in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of CO in pounds per hour and in units of the applicable standard(s) in the appropriate averaging period;

c. the percent CO_2 or O_2 with each cycle time of the analyzer, with no resolution less than one data point per minute required;

d. results of quarterly cylinder gas audits;

e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

g. hours of operation of the emissions unit, continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), and control equipment;

h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system);

i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system); and

j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(10)h. and d)(10)i.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(11) The permittee may operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of CO in pounds per hour, as an alternative to conducting Performance Specification 6. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as the reason (if known) and the corrective actions taken (if any) for each such event.

(12) The permittee shall collect, record, and maintain measurements, data, records, and reports required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required by 40 CFR Part 75.

(13) The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

Fuel flow data that is substituted in accordance with 40 CFR Part 75, Appendix D, is not to be used when verifying compliance with the hourly emission limits. Hours in which fuel flow is substituted should be included as monitoring system downtime.

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

(15) The permittee shall demonstrate that the natural gas combusted in this emissions unit does not exceed potential emissions of 0.0014 lb SO_2/MMBtu using one of the following sources of information:

a. the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content is 0.5 grains of sulfur or less per 100 standard cubic feet of natural gas and has potential sulfur emissions of less than 0.0014 lb SO_2/MMBtu heat input; or

b. representative fuel sampling data which show that the sulfur content of the fuel does not exceed 0.0014 lb SO_2/MMBtu heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 of Appendix D to 40 CFR Part 75 is required.

(16) The permittee shall determine the gross calorific value of the natural gas at least once per calendar month in accordance with section 2.3.4 of Appendix D to 40 CFR Part 75.

(17) The permittee shall maintain records of the percentage of sulfur by weight, gross calorific value, and density of the ULSD burned in this emissions unit. This information shall be obtained in accordance with the one of the sampling options and frequencies described in section 2.2.3 (flow proportional sampling), 2.2.4.1 (daily samples), 2.2.4.2 (sampling from a unit's storage tank), and 2.2.4.3 (sampling from each delivery) of 40 CFR Part 75, Appendix D.

(18) The permittee shall determine the hourly heat input rate to the combustion turbine, in MMBtu, from the fuel flow rate as determined in d)(13) and gross calorific value as determined in d)(16) for natural gas and d)(17) for ULSD. The heat input rate shall be calculated in accordance with the procedures in section 5 of 40 CFR Part 75, Appendix F.

(19) The permittee shall maintain daily records of the following information:

a. the period of time (start time and end time) that each turbine operated; and

b. the type of fuel combusted during operation.

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

a. the hours of operation, excluding startup and shutdown;

b. the hours of operation during startup;

c. the hours of operation during shutdown;

d. the hours of operation while burning ULSD;

e. the NO_X emissions, in pounds, as recorded by the CEMS;

f. the CO emissions, in pounds, as recorded by the CEMS or calculated using the LME excepted methodology in 40 CFR 75.19(c), as applicable;

g. the VOC emissions, in pounds, for startup/shutdown events calculated by multiplying the hours of operation of the combustion turbine in each startup and shutdown operating mode by the hourly VOC emissions rate for the corresponding mode of operation and type of fuel burned, i.e., 30 lb/hr during startup and 24 lb/hr during shutdown when burning natural gas and 0.15 lb/hr during startup and 0.15 lb/hr during shutdown when burning ULSD;

h. the VOC emissions, in pounds, excluding startup/shutdown emissions, calculated using the VOC emissions factors of 0.0038 lb/MMBtu when burning natural gas and 0.00041 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

i. the $PM/PM_{10}/PM_{2.5}$ emissions, in pounds, including startup/shutdown emissions, calculated using the $PM/PM_{10}/PM_{2.5}$ emission factors of 0.0059 lb/MMBtu when burning natural gas and 0.012 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

j. the SO_2 emissions, in pounds, including startup/shutdown emissions, for this emissions unit, calculated using the SO_2 emission factors of 0.0014 lb/MMBtu when

burning natural gas and 0.0015 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

k. the total H_2SO_4 emissions, in pounds, including startup/shutdown emissions, calculated using the H_2SO_4 emission factors of 0.00095 lb/MMBtu when burning natural gas and 0.0010 lb/MMBtu when burning ULSD, or after testing has been completed, the results of the most recent stack test;

l. the rolling, 12-month summation of the NO_X emissions for startup/shutdown events, in tons, calculated by adding the total NO_X emissions from startup/shutdown events for the present month as recorded in d)(20)e., plus the total NO_X emissions from startup/shutdown events for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

m. the rolling, 12-month summation of the NO_X, in tons, including start-up/shutdown emissions, calculated by adding the total NO_X emissions for the present month as recorded in d)(20)e., plus the total NO_X emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

n. the rolling, 12-month summation of the CO emissions for startup/shutdown events, in tons, calculated by adding the total CO emissions from startup/shutdown events for the present month as recorded in d)(20)f., plus the total CO emissions from startup/shutdown events for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

o. The rolling, 12-month summation of the CO, in tons, including startup/shutdown emissions, calculated by adding the total CO emissions for the present month as recorded in d)(20)f., plus the total CO emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

p. the rolling, 12-month summation of the VOC emissions, in tons, for startup/shutdown events calculated by adding the total VOC emissions from startup/shutdown events for the present month as recorded in d)(20)g., plus the total VOC emissions from startup/shutdown events for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

q. The rolling, 12-month summation of the VOC, in tons, including startup/shutdown emissions, calculated by adding the total VOC emissions for the present month as recorded in d)(20)g. and d)(20)h., plus the total VOC emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

r. The rolling, 12-month summation of the PM/PM_{10}/$PM_{2.5}$, in tons, including startup/shutdown emissions, calculated by adding the total PE/PM_{10}/$PM_{2.5}$ emissions for the present month as recorded in d)(20)i., plus the total PE/PM_{10}/$PM_{2.5}$ emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

s. The rolling, 12-month summation of the SO_2 emissions, in tons, including startup/shutdown emissions, calculated by adding the total SO_2 emissions for the present month as recorded in d)(20)j., plus the total SO_2 emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

t. The rolling, 12-month summation of the H_2SO_4, in tons, including startup/shutdown emissions, calculated by adding the total H_2SO_4 emissions for the present month as recorded in d)(20)k., plus the total H_2SO_4 emissions for the previous 11 months, and multiplying by 1 ton/2,000 pounds;

u. the rolling, 12-month hours of operation while burning ULSD; and

v. the rolling, 12-month hours operation while burning ULSD in emissions units P001 through P032 combined.

(21) The permittee shall maintain monthly records of the CO_{2e} emissions from the calendar month as well as the rolling, 12-month CO_{2e} emissions, in tons. The CO_{2e} emissions shall be calculated using the global warming potentials identified in Table A-1 of 40 CFR Part 98, the CH_4 and N_2O emission factors identified in Table C-2 of 40 CFR Part 98, and one of the following options to calculate CO_2 emissions:

a. The procedures specified in 40 CFR Part 75, Appendix G using data from the continuous fuel flow monitor; or

b. The LME excepted methodology in 40 CFR 75.19(c) may be used if the emissions unit meets the applicability requirements of 40 CFR 75.19(a)(1), (a)(2), and (b).

(22) The PTI application for emissions units P033 through P065 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust systems, as specified by the permittee. The *Toxic Air Contaminant Statute*, ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01 using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year (tpy) using an air dispersion model such as AERSCREEN, AERMOD, ISCST3 or other Ohio EPA-approved model. The predicted one-hour maximum ground-level concentration results from the approved air dispersion model, were compared to the maximum acceptable ground-level concentration (MAGLC), calculated as described in Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A," as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional eight-hour workday and a 40-hour workweek, for each toxic compound emitted from the emissions units (as determined from the raw materials processed and/or coatings or other materials applied), has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices shall be used, if the chemical is listed; or

ii. Short-term exposure limit (STEL) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent eight-hour TLV.

b. The TLV is divided by 10 to adjust the standard from the working population to the general public.

c. This standard is adjusted to account for the duration of the exposure or the operating hours of the emissions units, that is, 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week.

d. The resulting calculation shall be used to determine the MAGLC:

$$\frac{TLV}{10} \times \frac{8}{24} \times \frac{5}{7} = 4\frac{TLV}{168} = MAGLC$$

e. The following summarizes the results of dispersion modeling for the significant toxic contaminants or *worst-case* scenario:

i. Toxic Contaminant: ammonia

TLV (mg/m^3): 17

Maximum Hourly Emission Rate (lb/hr): 4.86 lb/hr (per turbine for P033 – P062)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 32.3

MAGLC ($\mu g/m^3$): 400

ii. Toxic Contaminant: formaldehyde

TLV (mg/m^3): 0.12

Maximum Hourly Emission Rate (lb/hr): 0.08 (per turbine for P033 – P062), 3.58E-05 lb/hr (for P063), and 9.25E-05 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 0.52

MAGLC ($\mu g/m^3$): 2.9

iii. Toxic Contaminant: sulfuric acid

TLV (mg/m^3): 0.2

Maximum Hourly Emission Rate (lb/hr): 0.33 (per turbine for P033 – P062), 6.24E-03 lb/hr (for P063), and 4.82E-02 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 2.3

MAGLC ($\mu g/m^3$): 5

The permittee has demonstrated that emissions of ammonia, formaldehyde, and sulfuric acid from emissions units P033 through P065 are calculated to be less than 80 percent of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

(23) Prior to making any physical changes to or changes in the method of operation of the emissions units that could impact the parameters or values that were used in the predicted one-hour maximum ground-level concentration, the permittee shall re-model any change to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the one-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emissions of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled.

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application.

c. Physical changes to the emissions units or exhaust parameters (for example, increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines the *Toxic Air Contaminant Statute, ORC 3704.03(F),* will be satisfied for the above changes, Ohio EPA will not consider a change to be a *modification* under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), has been documented. If each change meets the definition of a *modification*, the permittee shall apply for and obtain a final PTI prior to the change. The director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground-level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(24) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the *Toxic Air Contaminant Statute* ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (for example, the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.).

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated per the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

c. A copy of the computer model run(s), that established the predicted one-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions.

d. The documentation of the initial evaluation of compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

(25) The permittee shall maintain a record of any change made to a parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(26) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).

(27) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 12-month NO_X, CO, VOC, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4, and/or CO_2e emissions limitations;

b. each period of time (start time and date, and end time and date) when the emissions unit was in operation, excluding periods of startup and shutdown, when the emissions were not controlled by the dry low-NO_X burners, oxidation catalyst, and/or SCR system; and

c. each period of time (start time and date, and end time and date) when the emissions unit was in operation, excluding periods of startup and shutdown, when any parameter monitored to verify the proper operation of the dry low-NO_X burners, oxidation catalyst, and SCR was outside of the acceptable range.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions in Section A of this permit.

(2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system):

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of NO_X emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, 40 CFR Parts 75 and 76, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of continuous CO_2 or O_2 monitoring system downtime and malfunction while the emissions unit was in operation.

c. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous NO_X and CO_2 or O_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total NO_X emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) while the emissions unit was in operation;

viii. results and date of quarterly cylinder gas audits or linearity checks;

ix. unless previously submitted, results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_X and CO_2 or O_2 monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(2)c.xi. and e)(2)c.xii.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

(3) If using the fuel flow rate to stoichiometrically calculate the pound per hour emissions of NO_X in place of Performance Specification 6 requirements, the permittee shall submit quarterly reports, to the appropriate Ohio EPA DO/LAA, that document the date, time, and duration of each malfunction and/or period of downtime of the continuous fuel flow monitoring system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event. If there was no downtime or malfunction of the continuous fuel flow monitoring system during any calendar quarter, the report shall be submitted so stating it. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.

(4) If the permittee chooses to demonstrate compliance with the CO emissions limitations established under OAC rules 3745-31-10 through 3745-31-20 through the use of a CEMS, the permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system):

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the

requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-21, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA DO/LAA, documenting all instances of continuous CO_2 or O_2 monitoring system downtime and malfunction while the emissions unit was in operation.

c. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous CO and CO_2 or O_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total CO emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO and CO_2 or O_2 monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), and/or emissions unit;

xii. the date, time, and duration of any downtime** of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)c.xi. and e)(4)c.xii.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

*where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

**each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

(5) If using the fuel flow rate to stoichiometrically calculate the pound per hour emissions of CO, in place of Performance Specification 6 requirements, the permittee shall submit quarterly reports, to the appropriate Ohio EPA DO/LAA, that document the date, time, and duration of each malfunction and/or period of downtime of the continuous fuel flow monitoring system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event. If there was no downtime or malfunction of the continuous fuel flow monitoring system during any calendar quarter, the report shall be submitted so stating it. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.

(6) The permittee shall submit annual reports that include any changes to any parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The report shall include:

a. The original model input.

b. The updated model input.

c. The reason for each change to any input parameter.

d. A summary of the results of the updated modeling, including the input changes.

e. A statement that the model results indicate that the one-hour maximum ground-level concentration is less than 80 percent of the MAGLC.

If no changes to the emissions, emissions units or the exhaust stacks have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(7) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).

(8) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).

f) Testing Requirements

(1) Within 60 days of achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup, the permittee shall conduct certification tests of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system), in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; Performance Specification 6 relative accuracy requirements; ORC section 3704.03(I); 40 CFR Part 75; and 40 CFR Part 60, Subpart KKKKa.

The permittee shall certify that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test and shall demonstrate how the pound per hour emissions of NO_X and CO_2 or O_2 will be calculated stoichiometrically from the fuel flow rate.

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA DO/LAA shall be notified 45 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA DO/LAA and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification, or recommendation for certification by Ohio EPA to U.S. EPA, of the continuous NO_X monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; Performance Specification 6 relative accuracy requirements; ORC section 3704.03(I); and 40 CFR Part 75.

Ongoing compliance with the NO_X emissions limitations contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Recordkeeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

(2) If the permittee chooses to demonstrate compliance with the CO emissions limitations established under OAC rules 3745-31-10 through 3745-31-20 through the use of a CEMS, within 60 days of achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup, the permittee shall conduct certification tests of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate); Performance Specification 6 relative accuracy requirements; and ORC section 3704.03(I).

The permittee shall certify that the fuel flow monitor/meter is calibrated prior to the performance specification test and shall demonstrate how the pound per hour emissions of CO will be calculated stoichiometrically from the fuel flow rate.

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA DO/LAA shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA DO/LAA and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system) shall be granted upon determination by the Ohio EPA Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate); Performance Specification 6 relative accuracy requirements; and ORC section 3704.03(I).

Ongoing compliance with the CO emission limitations contained in this permit and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Recordkeeping Section of this permit; and through demonstration of

compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

(3) The permittee shall conduct, or have conducted, emission testing for this 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 the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate initial compliance with the NO_X, CO, and VOC outlet concentrations; the lb/hr emissions limitations for NO_X, CO, VOC, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4; the lb/MMBtu emissions limitations/factors for CO (ULSD only), VOC, PE, $PM/PM_{10}/PM_{2.5}$, SO_2, H_2SO_4; the lb/MW-hr emissions limitations for CO_2e; and the visible PE limitation.

c. The emission testing shall be conducted to demonstrate initial compliance with the NO_X emissions limitations specified in 40 CFR 60.4320a and the SO_2 emissions limitation specified in 40 CFR 60.4330a. If the permittee elects to demonstrate compliance with the SO_2 emission standard in 40 CFR 60.4330a using the methods specified in 40 CFR 60.4333a(d)(1), subsequent SO_2 performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test), except as provided by rule.

d. The emission testing shall be conducted to demonstrate initial compliance with the formaldehyde concentration limitation specified in 40 CFR 63.6100. Subsequent performance tests for formaldehyde concentration shall be conducted annually as specified in Table 3 to 40 CFR Part 63, Subpart YYYY.

e. For emissions units using the LME excepted methodology in 40 CFR 75.19(c), emissions testing shall be conducted every 5 years (20 calendar quarters) to determine new fuel-and-unit-specific NO_X and CO emissions rates, unless changes in the fuel supply, physical changes to the unit, changes in the manner of unit operation, or changes to the emission controls occur which may cause a significant increase in the unit's actual NO_X and/or CO emission rate(s). The fuel-and-unit-specific NO_X and CO emission rates shall be determined in accordance with 40 CFR 75.19(c)(1)(iv).

f. Separate emission testing shall be performed for each fuel (i.e., natural gas and ULSD).

g. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

NO_X	Methods 1 through 4 and 7E or 20 of 40 CFR Part 60, Appendix A
CO	Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A
VOC	Methods 1 through 4 and 18 or 25A of 40 CFR Part 60, Appendix A
PE	Methods 1 through 5 of 40 CFR Part 60, Appendix A
$PM/PM_{10}/PM_{2.5}$	Methods 1 through 4 of 40 CFR Part 60, Appendix A and Methods 201A and 202 of 40 CFR Part 51, Appendix M

CO_2	Methods 1 through 4 of 40 CFR Part 60, Appendix A, mass balance calculations using ASTM D1945-03 (Standard Test Method for Analysis of Natural Gas by Gas Chromatography) and/or ASTM D1826-94 (Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter).
Visible PE	Method 9 of 40 CFR Part 60, Appendix A
SO_2	40 CFR 60.4415a
H_2SO_4	Methods 1 through 4 and 8 of 40 CFR Part 60, Appendix A
Formaldehyde	The methods and procedures specified in 40 CFR 63.6120 and Tables 3 and 4 to 40 CFR Part 63, Subpart YYYY

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

h. During the emissions testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio DO/LAA. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.) or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under *worst case* conditions expected during the life of the permit. As part of the information provided in the Intent to Test (ITT) notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe *worst case* operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA DO/LAA that the proposed operating conditions constitute *worst case*. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

i. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an ITT notification to the appropriate Ohio EPA DO/LAA. The ITT 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 DO/LAA's refusal to accept the results of the emission test(s).

j. Personnel from the appropriate Ohio EPA DO/LAA 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.

k. A comprehensive written report on the results of the emissions test(s) shall be signed by the person(s) responsible for the tests and submitted to the appropriate Ohio EPA DO/LAA 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 DO/LAA.

(4) 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 Limitations

The permittee must not discharge into the atmosphere from the stationary combustion turbine any gases that contain an amount of NO_X that exceeds the applicable emissions standard that is determined in accordance with 40 CFR 60.4320a(b).

Applicable Compliance Method

Initial compliance shall be demonstrated through emissions testing performed in accordance with f)(3) above and the applicable requirements in 40 CFR 60.4333a and 60.4405a.

Ongoing compliance shall be demonstrated using a continuous emissions monitoring system (CEMS) for measuring NO_X emissions according to the provisions in 40 CFR 60.4345a. and 60.4350a.

b. Emissions Limitations

SO_2 emissions from the turbine shall not exceed 0.90 lb/MWh of gross energy output or 0.060 lb SO_2/MMBtu heat input.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(3) above using one of the methods specified in paragraphs 40 CFR 60.4333a(d)(1) through (4).

c. Emissions Limitations

NO_X emissions when firing natural gas shall not exceed 3.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.7 pounds per hour, excluding periods of startup and shutdown.

NO_X emissions when firing ULSD shall not exceed 9.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 44.0 pounds per hour, excluding periods of startup and shutdown.

CO emissions when firing natural gas shall not exceed 5.0 ppmvd at 15% O_2 based on a 3-hour block averaging period and 3.8 pounds per hour, excluding periods of startup and shutdown.

CO emissions when firing ULSD shall not exceed 0.00066 lb/MMBtu and 0.24 pounds per hour, excluding periods of startup and shutdown.

VOC emissions when firing natural gas shall not exceed 3.0 ppmvd at 15% O_2 and 1.3 pounds per hour, excluding periods of startup and shutdown.

VOC emissions when firing ULSD shall not exceed 0.00041 lb/MMBtu and 0.15 pounds per hour, excluding periods of startup and shutdown.

PE shall not exceed 0.040 lb/MMBtu actual heat input.

$PM/PM_{10}/PM_{2.5}$ emissions when firing natural gas shall not exceed 0.0059 lb/MMBtu and 2.1 pounds per hour.

$PM/PM_{10}/PM_{2.5}$ emissions when firing ULSD shall not exceed 0.012 lb/MMBtu and 4.3 pounds per hour.

SO_2 emissions when firing natural gas shall not exceed 0.0014 lb/MMBtu and 0.50 pounds per hour.

SO_2 emissions when firing ULSD shall not exceed 0.0015 lb/MMBtu and 0.55 pounds per hour.

SO_2 emissions when firing ULSD shall not exceed 0.5 lb/MMBtu actual heat input.

H_2SO_4 emissions when firing natural gas shall not exceed 0.00095 lb/MMBtu and 0.33 pounds per hour.

H_2SO_4 emissions when firing ULSD shall not exceed 0.0010 lb/MMBtu and 0.37 pounds per hour.

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(3) above and the monitoring and recordkeeping specified in d) above.

d. Emission Limitations

CO_2e emissions when firing natural gas shall not exceed 1,067 lb/MW-hr gross energy output at full load ISO conditions.

CO_2e emissions when firing ULSD shall not exceed 1,553 lb/MW-hr gross energy output at full load ISO conditions.

Applicable Compliance Method

Because more than 99% of the CO_2e emissions result from CO_2 emissions, compliance with the lb/MW-hr emissions limitations will be demonstrated if the CO_2 emissions measured during testing performed in accordance with f)(3) above do not exceed 1,067 lb/MW-hr when firing natural gas and 1,553 lb/MW-hr when firing ULSD.

e. Emissions Limitations

19.1 tons of NO_X per rolling, 12-month period, including start-up and shutdown emissions

20.3 tons of CO emissions per rolling, 12-month period, including start-up and shutdown emissions

6.0 tons of VOC emissions per rolling, 12-month period, including start-up and shutdown emissions

9.2 tons of $PE/PM_{10}/PM_{2.5}$ per rolling, 12-month period

2.2 tons of SO_2 emissions per rolling, 12-month period

1.5 tons of H_2SO_4 emissions per rolling, 12-month period

178,644 tons of CO_2e emissions per rolling, 12-month period

NO_X emissions during startup and shutdown shall not exceed 0.31 tons per rolling, 12-month period.

CO emissions during startup and shutdown shall not exceed 3.7 tons per rolling, 12-month period.

VOC emissions during startup and shutdown shall not exceed 0.27 tons per rolling, 12-month period.

Applicable Compliance Method

Compliance with the rolling, 12-month emissions limitations shall be demonstrated in accordance with the monitoring and recordkeeping specified in d) above.

f. Emissions Limitation

Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent oxygen, except during turbine startup.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(3) above and the applicable requirements specified in 40 CFR 63.6110 through 63.6140 and Tables 3 through 5 of 40 CFR Part 63, Subpart YYYY.

g) Miscellaneous Requirements

(1) None.

4. P063, BLGR-FWP-101

Operations, Property and/or Equipment Description:

380 hp Diesel-Fired Emergency Firewater Pump Engine

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) See b)(1)i., d)(6) through d)(9), and e)(3) below.

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 rules 3745-31-10 through 3745-31-20 and 3745-31-34 [Prevention of Significant Deterioration of Air Quality]	The emissions unit shall be certified to meet the following emissions standards: 0.20 grams PM/kW-hr; 4.0 grams NO_X + NMHC/kW-hr; and 3.5 grams CO/kW-hr. NO_X emissions shall not exceed 3.1 pounds per hour and 0.16 tons per rolling, 12-month period. CO emissions shall not exceed 2.2 pounds per hour and 0.11 tons per rolling, 12-month period. VOC emissions shall not exceed 2.5 pounds per hour and 0.13 tons per rolling, 12-month period. $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.84 pounds per hour and 0.042 tons per rolling, 12-month period. SO_2 emissions shall not exceed 0.0015 lb/MMBtu of actual heat input, 0.0041 pounds per hour, and 0.00020 tons per rolling, 12-month period. Sulfuric acid emissions shall not exceed 0.0023 lb/MMBtu of actual heat input, 0.0062 pounds per hour, and 0.00031 tons per rolling, 12-month period. CO_2e emissions shall not exceed 21.8 tons per rolling, 12-month period. See b)(2)a., b)(2)b., and b)(2)e. below.

b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_X, CO, VOC, PM_{10}, $PM_{2.5}$ and SO_2 emissions from this air contaminant source since the potentials to emit are less than 10 tons per year.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)(5)(a)	Particulate emissions from the engine's exhaust shall not exceed 0.310 lb/MMBtu actual heat input.
e.	OAC rule 3745-110-03(K)(3)	Paragraphs (A) to (G) of OAC rule 3745-110-03 do not apply to this stationary ICE because the energy output capacity is less than 500 hp.
f.	40 CFR Part 60, Subpart IIII 40 CFR 60.4202(d) 40 CFR 60.4205(c) 40 CFR 60.4207(b) Table 4	The emissions unit shall be certified to meet the following emissions standards: 0.20 grams PM/kW-hr; 4.0 grams NO_X + NMHC/kW-hr; and 3.5 grams CO/kW-hr. See b)(2)a. through b)(2)d. below.
g.	40 CFR Part 60, Subpart A [40 CFR 60.1 – 60.19]	Table 8 to 40 CFR Part 60, Subpart IIII- "Applicability of General Provisions to Subpart IIII" identifies which parts of the General Provisions in 40 CFR Part 60.1-19 apply.
h.	40 CFR Part 63, Subpart ZZZZ [40 CFR 63.6580 – 63.6675] [In accordance with 40 CFR 63.6590(c)(6), this emissions unit is an emergency stationary RICE with a site rating of less than 500 brake HP located at a major source of HAP emissions.]	The emissions unit shall meet the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines. See b)(2)e. below.
i.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(6) through d)(9) below.

(2) Additional Terms and Conditions

a. The emergency stationary compression ignition (CI) internal combustion engine (ICE) shall be installed, operated, and maintained according to the manufacturer's emission-related written instructions and the permittee shall only change those emission–related settings that are allowed by the manufacturer. The CI ICE must also be installed and operated to meet the applicable requirements from 40 CFR Part 60, Subpart IIII. The permittee shall operate and maintain the stationary CI ICE to achieve the emissions standards established in 40 CFR 60.4205 over the entire life of the engine(s).

b. The emergency stationary CI ICE has been or shall be purchased certified by the manufacturer to emission standards as stringent as those identified in 40 CFR 60.4202(d) and found in Table 4 of 40 CFR Part 60, Subpart IIII for stationary fire pump engines greater than or equal to 300 horsepower (225 kilowatt) and less than 600 horsepower (450 kilowatt).

c. The emergency stationary ICE must comply with the applicable requirements specified in 40 CFR 60.4211(f) in order to be considered an emergency stationary ICE under Part 60, Subpart IIII.

d. The emergency stationary CI ICE shall burn only ultra-low sulfur diesel (ULSD) that meets the following per-gallon standards:

i. A maximum sulfur content of 15 ppm (0.0015% sulfur by weight); and

ii. A cetane index or aromatic contents, as follows:

(a) A minimum cetane index of 40; or

(b) A maximum aromatic content of 35 volume percent.

e. The emergency stationary CI ICE shall not operate more than 100 non-emergency hours per rolling, 12-month period.

f. If the permittee chooses to install the GE turbines (emissions units P001 through P032), then the facility is a minor source of HAP emissions and the requirements in b)(1)h. shall be considered void.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the manufacturer's certification, to the applicable emission standards in Table 4 of 40 CFR Part 60, Subpart IIII, on site or at a central location for all facility ICE and it shall be made available for review upon request. If the manufacturer's certification is not kept on site, the permittee shall maintain a log for the location of each ICE and it shall identify the agency-assigned emissions unit number, the manufacturer's identification number, and the identification number of the certificate. The manufacturer's operations manual and any written instructions or procedures developed by the permittee and approved by the manufacturer shall be maintained at the same location as the ICE.

(2) The emergency stationary CI ICE shall be installed with a non-resettable hour meter prior to startup of the engine.

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

a. the total number of hours the engine was in operation;

b. the number of hours spent in emergency operation;

c. what classified the operation as an emergency;

d. the number of hours spent in non-emergency operation;

e. the number of hours in maintenance checks and readiness testing; and

f. the rolling, 12-month summation of the number of hours the engine was in non-emergency operation.

(4) The permittee shall maintain documents provided by the oil supplier for each shipment of fuel oil to demonstrate compliance with the ULSD requirement. These documents must include the receipt or bill of lading that includes confirmation that the fuel meets the ULSD standard.

(5) For each day during which the permittee burns a fuel other than ULSD, the permittee shall maintain a record of the type, percent sulfur content, and quantity of fuel burned in this emissions unit.

(6) The PTI application for emissions units P001 through P032 or P033 through P062, and P063 through P065 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust systems, as specified by the permittee. The *Toxic Air Contaminant Statute*, ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01 using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year (tpy) using an air dispersion model such as AERSCREEN, AERMOD, ISCST3 or other Ohio EPA-approved model. The predicted one-hour maximum ground-level concentration results from the approved air dispersion model, were compared to the maximum acceptable ground-level concentration (MAGLC), calculated as described in Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A," as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional eight-hour workday and a 40-hour workweek, for each toxic compound emitted from the emissions units (as determined from the raw materials processed and/or coatings or other materials applied), has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices shall be used, if the chemical is listed; or

ii. Short-term exposure limit (STEL) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent eight-hour TLV.

b. The TLV is divided by 10 to adjust the standard from the working population to the general public.

c. This standard is adjusted to account for the duration of the exposure or the operating hours of the emissions units, that is, 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week.

d. The resulting calculation shall be used to determine the MAGLC:

$$\frac{TLV}{10} \times \frac{8}{24} \times \frac{5}{7} = 4\frac{TLV}{168} = MAGLC$$

e. The following summarizes the results of dispersion modeling for the significant toxic contaminants or *worst-case* scenario for emissions units P001 through P032 and P063 through P065:

i. Toxic Contaminant: formaldehyde

TLV (mg/m^3): 0.12

Maximum Hourly Emission Rate (lb/hr): 0.06 lb/hr (per turbine for P001 – P032), 3.58E-05 lb/hr (for P063), and 9.25E-05 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 0.35

MAGLC ($\mu g/m^3$): 2.9

ii. Toxic Contaminant: sulfuric acid

TLV (mg/m^3): 0.2

Maximum Hourly Emission Rate (lb/hr): 0.31 lb/hr (per turbine for P001 – P032), 6.24E-03 lb/hr (for P063), and 4.82E-02 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 1.9

MAGLC ($\mu g/m^3$): 5

f. The following summarizes the results of dispersion modeling for the significant toxic contaminants or *worst-case* scenario for emissions units P033 through P065:

i. Toxic Contaminant: formaldehyde

TLV (mg/m^3): 0.12

Maximum Hourly Emission Rate (lb/hr): 0.08 (per turbine for P033 – P062), 3.58E-05 lb/hr (for P063), and 9.25E-05 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 0.53

MAGLC ($\mu g/m^3$): 2.9

ii. Toxic Contaminant: sulfuric acid

TLV (mg/m^3): 0.2

Maximum Hourly Emission Rate (lb/hr): 0.33 (per turbine for P033 – P062), 6.24E-03 lb/hr (for P063), and 4.82E-02 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 2.5

MAGLC ($\mu g/m^3$): 5

The permittee has demonstrated that emissions of formaldehyde and sulfuric acid are calculated to be less than 80 percent of the MAGLC; any new raw material or processing agent

shall not be applied without evaluating each component toxic air contaminant in accordance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

(7) Prior to making any physical changes to or changes in the method of operation of the emissions units that could impact the parameters or values that were used in the predicted one-hour maximum ground-level concentration, the permittee shall re-model any change to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the one-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emissions of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled.

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application.

c. Physical changes to the emissions units or exhaust parameters (for example, increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines the *Toxic Air Contaminant Statute, ORC 3704.03(F),* will be satisfied for the above changes, Ohio EPA will not consider a change to be a *modification* under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), has been documented. If each change meets the definition of a *modification*, the permittee shall apply for and obtain a final PTI prior to the change. The director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground-level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the *Toxic Air Contaminant Statute* ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (for example, the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.).

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated per the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

c. A copy of the computer model run(s), that established the predicted one-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions.

d. The documentation of the initial evaluation of compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), and documentation of any determination that

was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

(9) The permittee shall maintain a record of any change made to a parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than low-sulfur diesel fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight) was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(2) The permittee shall submit a completed EAC form for the emergency stationary CI ICE within 30 days after placement on its concrete pad.

(3) The permittee shall submit annual reports that include any changes to any parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The report shall include:

a. The original model input.

b. The updated model input.

c. The reason for each change to any input parameter.

d. A summary of the results of the updated modeling, including the input changes.

e. A statement that the model results indicate that the one-hour maximum ground-level concentration is less than 80 percent of the MAGLC.

If no changes to the emissions, emissions units or the exhaust stacks have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

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. <u>Emissions Limitations</u>

The emissions unit shall be certified to meet the following emissions standards:
0.20 grams PM/kW-hr;
4.0 grams NO_X + NMHC/kW-hr; and
3.5 grams CO/kW-hr.

<u>Applicable Compliance Method</u>

Compliance with the emissions limitations shall be based on the manufacturer's certification and by maintaining the engine according to the manufacturer's instructions.

b. Emissions Limitations

NO_X emissions shall not exceed 3.1 pounds per hour and 0.16 tons per rolling, 12-month period.

CO emissions shall not exceed 2.2 pounds per hour and 0.11 tons per rolling, 12-month period.

VOC emissions shall not exceed 2.5 pounds per hour and 0.13 tons per rolling, 12-month period.

$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.84 pounds per hour and 0.042 tons per rolling, 12-month period.

SO_2 emissions shall not exceed 0.0015 lb/MMBtu of actual heat input, 0.0041 pounds per hour, and 0.00020 tons per rolling, 12-month period.

Sulfuric acid emissions shall not exceed 0.0023 lb/MMBtu of actual heat input, 0.0062 pounds per hour, and 0.00031 tons per rolling, 12-month period.

Applicable Compliance Method

The short-term emissions limitations were established to reflect the potential-to-emit for this emissions unit based on burning only ULSD with a maximum sulfur content of 15 ppm (0.0015% sulfur by weight). Compliance with the emissions limitations shall be based on burning only ULSD and maintaining the engine according to the manufacturers' instructions.

The rolling, 12-month emissions limitations were established by multiplying the hourly emissions limit by 100 hours per year and dividing by 2,000 pounds per ton. Compliance with the rolling, 12-month emissions limitations may be assumed provided the permittee complies with the hourly emissions limitations and the engine operates no more than 100 hours per rolling, 12-month period for non-emergency purposes.

If required, the permittee shall demonstrate compliance with these emissions limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6 for SO_2; Method 7E for NO_X; Method 8 for sulfuric acid mist; Method 10 for CO; Method 25 or 25A, as applicable, for VOC; Method 5 for PM; 40 CFR Part 51, Appendix M, Methods 201/201A and 202 for PM_{10}; and 40 CFR Part 51, Appendix M, Methods 201A and 202 for $PM_{2.5}$. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. Emissions Limitation

CO_2e emissions shall not exceed 21.8 tons per rolling, 12-month period.

Applicable Compliance Method

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

$$CO_2e = \frac{(\text{Emission Factor})(\text{Hours of Operation})}{2{,}000 \text{ lb/ton}}$$, where:

Emission Factor = 435.1 lb CO_2e/hr, calculated using the maximum heat input capacity for the engine, the emissions factors in 40 CFR Part 98, Tables C-1 and C-2, and the global warming potentials in 40 CFR Part 98, Table A-1

Hours of Operation = the number of hours the engine operated during the rolling, 12-month period, as recorded in d)(3)f. above

d. Emissions Limitation

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

Applicable Compliance Method

If required, compliance shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.

e. Emissions Limitation

Particulate emissions from the engine's exhaust shall not exceed 0.310 lb/MMBtu actual heat input.

Applicable Compliance Method

Compliance shall be determined based on the manufacturer's specification sheet.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

g) Miscellaneous Requirements

(1) None.

5. Emissions Unit Group - Emergency Generators: P064 and P065

EU ID	Operations, Property and/or Equipment Description
P064 and P065	1,750 kWe Diesel-Fired Emergency Generators

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) See b)(1)i., d)(6) through d)(9), and e)(3) below.

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 rules 3745-31-10 through 3745-31-20 and 3745-31-34 [Prevention of Significant Deterioration of Air Quality]	The emissions unit shall be certified to meet the following emissions standards: 0.20 grams PM/kW-hr; 6.4 grams NO_X + NMHC/kW-hr; 3.5 grams CO/kW-hr; 20 percent opacity during the acceleration mode; 15 percent opacity during the lugging mode; and 50 percent opacity during the peaks in either the acceleration or lugging modes. NO_X emissions shall not exceed 40.0 pounds per hour and 10.0 tons per rolling, 12-month period. CO emissions shall not exceed 6.1 pounds per hour and 1.5 tons per rolling, 12-month period. VOC emissions shall not exceed 1.0 pound per hour and 0.26 tons per rolling, 12-month period. $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.45 pounds per hour and 0.11 tons per rolling, 12-month period. SO_2 emissions shall not exceed 0.0015 lb/MMBtu of actual heat input, 0.031 pounds per hour and 0.0079 tons per rolling, 12-month period.

		Sulfuric acid emissions shall not exceed 0.0023 lb/MMBtu of actual heat input, 0.048 pounds per hour, and 0.012 tons per rolling, 12-month period. CO_2e emissions shall not exceed 839.8 tons per rolling, 12-month period. See b)(2)a., b)(2)b., and b)(2)e. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_X, CO, VOC, PM_{10}, $PM_{2.5}$ and SO_2 emissions from this air contaminant source since the potentials to emit are less than 10 tons per year.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)(5)(b)	Particulate emissions from the engine's exhaust shall not exceed 0.062 lb/MMBtu actual heat input.
e.	OAC rule 3745-18-06(G)	SO_2 emissions shall not exceed 0.5 lb/MMBtu actual heat input.
f.	OAC rule 3745-110-03(K)(18)	Paragraphs (A) to (G) of OAC rule 3745-110-03 do not apply because this emissions unit is subject to BACT requirements for NO_X emissions.
g.	40 CFR Part 60, Subpart IIII 40 CFR 60.4202(a)(2) 40 CFR 60.4205(b) 40 CFR 60.4207(b) 40 CFR Part 1039, Appendix I, Tier 2 40 CFR 1039.105	The emissions unit shall be certified to meet the following emissions standards: 0.20 grams PM/kW-hr; 6.4 grams NO_X + NMHC/kW-hr; 3.5 grams CO/kW-hr; 20 percent opacity during the acceleration mode; 15 percent opacity during the lugging mode; and 50 percent opacity during the peaks in either the acceleration or lugging modes. See b)(2)a. through b)(2)d. below.
h.	40 CFR Part 60, Subpart A [40 CFR 60.1 – 60.19]	Table 8 to 40 CFR Part 60, Subpart IIII-"Applicability of General Provisions to Subpart IIII" identifies which parts of the General Provisions in 40 CFR Part 60.1-19 apply.
i.	40 CFR Part 63, Subpart ZZZZ [40 CFR 63.6580 – 63.6675] [In accordance with 40 CFR 63.6590(b)(1), this emissions unit is an emergency stationary RICE with a site	In accordance with 40 CFR 63.6590(b)(1), the emissions unit does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 63, Subpart A except for the initial notification requirements of 40 CFR 63.6645(f).

	rating of more than 500 brake HP located at a major source of HAP emissions.]	See b)(2)f. below.
j.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(6) through d)(9) below.

(2) Additional Terms and Conditions

a. The emergency stationary compression ignition (CI) internal combustion engine (ICE) shall be installed, operated, and maintained according to the manufacturer's emission-related written instructions and the permittee shall only change those emission–related settings that are allowed by the manufacturer. The CI ICE must also be installed and operated to meet the applicable requirements from 40 CFR Part 60, Subpart IIII; 40 CFR Part 1039, Control of Emissions from New and In-use Nonroad CI Engines; and 40 CFR Part 1068, the General Compliance Provisions for Engine Programs. The permittee shall operate and maintain the stationary CI ICE to achieve the emissions standards established in 40 CFR 60.4205 over the entire life of the engine(s).

b. The emergency stationary CI ICE has been or shall be purchased certified by the manufacturer to emission standards as stringent as those identified in 40 CFR 60.4202(a)(2), including the Tier 2 standards in 40 CFR 1039, Appendix I for engines greater than or equal 750 horsepower (560 kilowatt) and the smoke standards as specified in 40 CFR 1039.105.

c. The emergency stationary ICE must comply with the applicable requirements specified in 40 CFR 60.4211(f) in order to be considered an emergency stationary ICE under Part 60, Subpart IIII.

d. The emergency stationary CI ICE shall burn only ultra-low sulfur diesel (ULSD) that meets the following per-gallon standards:

i. A maximum sulfur content of 15 ppm (0.0015% sulfur by weight); and

ii. A cetane index or aromatic contents, as follows:

(a) A minimum cetane index of 40; or

(b) A maximum aromatic content of 35 volume percent.

e. The emergency stationary CI ICE shall not operate more than 500 hours per rolling, 12-month period.

f. If the permittee chooses to install the GE turbines (emissions units P001 through P032), then the facility is a minor source of HAP emissions and the requirements in b)(1)i. and e)(4) shall be considered void.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the manufacturer's certification, to the applicable Tier 2 emission standards in 40 CFR 1039, Appendix I, on site or at a central location for all facility ICE and it shall be made available for review upon request. If the manufacturer's certification is not kept on site, the permittee shall maintain a log for the location of each ICE and it shall identify the agency-assigned emissions unit number, the manufacturer's identification number, and the identification number of the certificate. The manufacturer's operations manual and any written instructions or procedures developed by the permittee and approved by the manufacturer shall be maintained at the same location as the ICE.

(2) The emergency stationary CI ICE shall be installed with a non-resettable hour meter prior to startup of the engine.

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

a. the total number of hours the engine was in operation;

b. the number of hours spent in emergency operation;

c. what classified the operation as an emergency;

d. the number of hours spent in non-emergency operation;

e. the number of hours in maintenance checks and readiness testing; and

f. the rolling, 12-month summation of the number of hours the engine was in operation.

(4) The permittee shall maintain documents provided by the oil supplier for each shipment of fuel oil to demonstrate compliance with the ULSD requirement. These documents must include the receipt or bill of lading that includes confirmation that the fuel meets the ULSD standard.

(5) For each day during which the permittee burns a fuel other than ULSD, the permittee shall maintain a record of the type, percent sulfur content, and quantity of fuel burned in this emissions unit.

(6) The PTI application for emissions units P001 through P032 or P033 through P062, and P063 through P065 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust systems, as specified by the permittee. The *Toxic Air Contaminant Statute*, ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01 using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year (tpy) using an air dispersion model such as AERSCREEN, AERMOD, ISCST3 or other Ohio EPA-approved model. The predicted one-hour maximum ground-level concentration results from the approved air dispersion model, were compared to the maximum acceptable ground-level concentration (MAGLC), calculated as described in Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A," as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional eight-hour workday and a 40-hour workweek, for each toxic compound emitted from the emissions units (as determined from the raw materials processed and/or coatings or other materials applied), has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices shall be used, if the chemical is listed; or

ii. Short-term exposure limit (STEL) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent eight-hour TLV.

b. The TLV is divided by 10 to adjust the standard from the working population to the general public.

c. This standard is adjusted to account for the duration of the exposure or the operating hours of the emissions units, that is, 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week.

d. The resulting calculation shall be used to determine the MAGLC:

$$\frac{TLV}{10} \times \frac{8}{24} \times \frac{5}{7} = 4\frac{TLV}{168} = MAGLC$$

e. The following summarizes the results of dispersion modeling for the significant toxic contaminants or *worst-case* scenario for emissions units P001 through P032 and P063 through P065:

i. Toxic Contaminant: formaldehyde

TLV (mg/m^3): 0.12

Maximum Hourly Emission Rate (lb/hr): 0.06 lb/hr (per turbine for P001 – P032), 3.58E-05 lb/hr (for P063), and 9.25E-05 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 0.35

MAGLC ($\mu g/m^3$): 2.9

ii. Toxic Contaminant: sulfuric acid

TLV (mg/m^3): 0.2

Maximum Hourly Emission Rate (lb/hr): 0.31 lb/hr (per turbine for P001 – P032), 6.24E-03 lb/hr (for P063), and 4.82E-02 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 1.9

MAGLC ($\mu g/m^3$): 5

f. The following summarizes the results of dispersion modeling for the significant toxic contaminants or *worst-case* scenario for emissions units P033 through P065:

i. Toxic Contaminant: formaldehyde

TLV (mg/m^3): 0.12

Maximum Hourly Emission Rate (lb/hr): 0.08 (per turbine for P033 – P062), 3.58E-05 lb/hr (for P063), and 9.25E-05 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration (µg/m^3): 0.53

MAGLC (µg/m^3): 2.9

ii. Toxic Contaminant: sulfuric acid

TLV (mg/m^3): 0.2

Maximum Hourly Emission Rate (lb/hr): 0.33 (per turbine for P033 – P062), 6.24E-03 lb/hr (for P063), and 4.82E-02 lb/hr (per engine for P064 and P065)

Predicted One-Hour Maximum Ground-Level Concentration (µg/m^3): 2.5

MAGLC (µg/m^3): 5

The permittee has demonstrated that emissions of formaldehyde and sulfuric acid are calculated to be less than 80 percent of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

(7) Prior to making any physical changes to or changes in the method of operation of the emissions units that could impact the parameters or values that were used in the predicted one-hour maximum ground-level concentration, the permittee shall re-model any change to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the one-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emissions of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled.

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application.

c. Physical changes to the emissions units or exhaust parameters (for example, increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines the *Toxic Air Contaminant Statute, ORC 3704.03(F),* will be satisfied for the above changes, Ohio EPA will not consider a change to be a *modification* under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), has been documented. If each change meets the definition of a *modification*, the permittee shall apply for and obtain a final PTI prior to the change. The director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground-level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the *Toxic Air Contaminant Statute* ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (for example, the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.).

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated per the *Toxic Air Contaminant Statute*, ORC 3704.03(F).

c. A copy of the computer model run(s), that established the predicted one-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions.

d. The documentation of the initial evaluation of compliance with the *Toxic Air Contaminant Statute,* ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

(9) The permittee shall maintain a record of any change made to a parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than low-sulfur diesel fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight) was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(2) The permittee shall submit a completed EAC form for the emergency stationary CI ICE within 30 days after placement on its concrete pad.

(3) The permittee shall submit annual reports that include any changes to any parameter or value entered in the dispersion model used to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F), through the predicted one-hour maximum ground-level concentration. The report shall include:

a. The original model input.

b. The updated model input.

c. The reason for each change to any input parameter.

d. A summary of the results of the updated modeling, including the input changes.

e. A statement that the model results indicate that the one-hour maximum ground-level concentration is less than 80 percent of the MAGLC.

If no changes to the emissions, emissions units or the exhaust stacks have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(4) See 40 CFR 63.6645(f).

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 Limitations

The emissions unit shall be certified to meet the following emissions standards:
0.20 grams PM/kW-hr;
6.4 grams NO_X + NMHC/kW-hr;
3.5 grams CO/kW-hr;
20 percent opacity during the acceleration mode;
15 percent opacity during the lugging mode; and
50 percent opacity during the peaks in either the acceleration or lugging modes.

Applicable Compliance Method

Compliance with the emissions limitations shall be based on the manufacturer's certification and by maintaining the engine according to the manufacturer's instructions.

b. Emissions Limitations

NO_X emissions shall not exceed 40.0 pounds per hour and 10.0 tons per rolling, 12-month period.

CO emissions shall not exceed 6.1 pounds per hour and 1.5 tons per rolling, 12-month period.

VOC emissions shall not exceed 1.0 pound per hour and 0.26 tons per rolling, 12-month period.

$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 0.45 pounds per hour and 0.11 tons per rolling, 12-month period.

SO_2 emissions shall not exceed 0.0015 lb/MMBtu of actual heat input, 0.031 pounds per hour and 0.0079 tons per rolling, 12-month period.

Sulfuric acid emissions shall not exceed 0.0023 lb/MMBtu of actual heat input, 0.048 pounds per hour, and 0.012 tons per rolling, 12-month period.

Applicable Compliance Method

The short-term emissions limitations were established to reflect the potential-to-emit for this emissions unit based on burning only ULSD with a maximum sulfur content of 15 ppm (0.0015% sulfur by weight). Compliance with the emissions limitations shall be based on burning only ULSD and maintaining the engine according to the manufacturers' instructions.

The rolling, 12-month emissions limitations were established by multiplying the hourly emissions limit by 500 hours per year and dividing by 2,000 pounds per ton.

Compliance with the rolling, 12-month emissions limitations may be assumed provided the permittee complies with the hourly emissions limitations and the engine operates no more than 500 hours per rolling, 12-month period.

If required, the permittee shall demonstrate compliance with these emissions limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6 for SO_2; Method 7E for NO_X; Method 8 for sulfuric acid mist; Method 10 for CO; Method 25 or 25A, as applicable, for VOC; Method 5 for PM; 40 CFR Part 51, Appendix M, Methods 201/201A and 202 for PM_{10}; and 40 CFR Part 51, Appendix M, Methods 201A and 202 for $PM_{2.5}$. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. Emissions Limitation

CO_2e emissions shall not exceed 839.8 tons per rolling, 12-month period.

Applicable Compliance Method

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

$CO_2e = \frac{(\text{Emission Factor})(\text{Hours of Operation})}{2{,}000 \text{ lb/ton}}$, where:

Emission Factor = 3,359 lb CO_2e/hr, calculated using the maximum heat input capacity for the engine, the emissions factors in 40 CFR Part 98, Tables C-1 and C-2, and the global warming potentials in 40 CFR Part 98, Table A-1

Hours of Operation = the number of hours the engine operated during the rolling, 12-month period, as recorded in d)(3)f. above

d. Emissions Limitation

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

Applicable Compliance Method

If required, compliance shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.

e. Emissions Limitation

Particulate emissions from the engine's exhaust shall not exceed 0.062 lb/MMBtu actual heat input.

Applicable Compliance Method

Compliance shall be determined based on the manufacturer's specification sheet.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

f. Emissions Limitation

SO_2 emissions shall not exceed 0.5 lb/MMBtu actual heat input.

Applicable Compliance Method

Compliance shall be determined using documents required in d)(4) above. Emissions of SO_2 shall be calculated in accordance with OAC rule 3745-18-04(F)(2) using the maximum fuel sulfur content of 15 ppm.

g) Miscellaneous Requirements

(1) None.