



03/05/2026

Andy Woerner
Will-Power OH LLC - Apollo
2000 Commerce Dr
Pittsburgh, PA 15275

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 0387022027
Permit Number: P0139272
Permit Type: Initial Installation
County: Wood

Yes	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
Yes	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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 facility has been issued for the emissions unit(s) listed in the Authority. 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, Northwest District Office
347 North Dunbridge Rd.
Bowling Green, OH 43402

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, Northwest District Office at (419)352-8461.

Sincerely,

Robert Hodanbosi
Chief, Division of Air Pollution Control

cc: U.S. EPA Region 5 - Via E-Mail Notification
Ohio EPA-NWDO; Michigan; Indiana; Canada

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*](mailto:HClerk@epa.ohio.gov)

Draft Air Pollution Permit-to-Install Initial Installation

Will-Power OH LLC - Apollo
11902 Middleton Pike
Bowling Green, OH 43402

ID#: P0139272

Date of Action: 03/05/2026

Permit Desc: Initial Installation PTI for (6) natural gas fired engines and (21) natural gas fired turbines

Permit Strategy Write-Up

1. Check all that apply:

☐ Synthetic Minor Determination

☐ Netting Determination

2. Source Description:

Will-Power OH LLC – Apollo (Will-Power) submitted a PTI application for 6 non-emergency natural gas-fired engines (emissions units P003 – P008) and 21 natural gas-fired turbines (emissions units P009 – P029) that will provide power to an adjacent customer. All 27 emissions units will vent to SCR and oxidation catalyst systems. The facility is also planning to install 21 de minimis natural gas-fired heaters, 3 permit-by-rule emergency diesel-fired engines.

3. Facility Emissions and Attainment Status:

Will-Power will be located in Wood County which is in full attainment for all NAAQS. The facility will be a major source under Title V and MACT. The facility-wide PTE will remain below major source PSD thresholds taking into account the SCR and oxidation catalyst systems on the 27 permitted emissions units, 40 startups and 40 shutdowns per year per permitted emissions unit, and 500 hours per year of operation of the emergency generators. The controlled PTE is provided below in Table 1.

Table 1: Controlled PTE (TPY)

	NO _x	CO	VOC	PM ₁₀ /PM _{2.5}	SO ₂	Total HAPs	CH ₂ O	NH ₃
6 Caterpillar G3520 Engines	19.92	19.86	14.7	5.76	5.52	11.46	4.74	5.4
10 Solar Titan 130 Turbines	55.8	81.0	45.7	49.7	71.9	3.1	1.6	130.9
3 Siemens SGT-A35 Turbines	30.96	44.07	22.11	24.78	35.85	1.53	0.81	63.81
6 Siemens SGT-400 Turbines	28.26	43.02	24.54	25.44	36.84	3.54	2.76	64.98
2 Siemens SGT-800 Turbines	31.68	33.28	32.62	32.8	47.44	4.48	3.54	75.54
22 De Minimis Heaters	15.37	12.91	0.85	1.17	0.09	0.28	0.02	-
3 PBR Emergency Engines	10.1	0.48	0.05	0.07	0.07	0.009	0.0007	-
Total:	192.09	234.62	140.57	139.72	197.71	24.40	13.47	340.63

The facility's potential NO₂, CO, PM₁₀, PM_{2.5}, SO₂, CH₂O, and NH₃ emissions exceed the Ohio modeling significant emissions rates listed in Table 3 of Engineering Guide #69. Will-Power performed emissions modeling of the controlled PTE using AERMOD. The modeling has been reviewed and deemed acceptable.

4. Source Emissions:

Emissions units P003 through P029 are a source of products of combustion and ammonia emissions from the burning of natural gas and the use of the SCR control systems. NO_x emissions are controlled by the SCR and CO and VOC emissions are controlled by the oxidation catalyst.

Will-Power requested short-term and long-term BAT limits for NO_x, CO, and VOC to ensure their controlled PTE is legally and practicably enforceable for PSD avoidance. Except for NO_x and CO from the 3 Siemens SGT-A35 turbines (emissions units P015 – P017) and NO_x, CO and VOC from the 2 Siemens SGT-800 turbines (emissions units P024 and P025), all pollutants from each engine and turbine are less than 10 tons per year taking into account the oxidation catalyst and SCR. Where BAT does not apply, the legally and practicably enforceable limits for NO_x, CO, and/or VOC are being established under OAC rule 3745-31-05(F). The NO_x RACT requirements pursuant to OAC rules 3745-110-03(E) and (F) do not apply since they are either less stringent than or equivalent to the provisions of 40 CFR Part 60, Subpart KKKKa and 40 CFR Part 60, Subpart JJJJ, respectively.

Because the engines and turbines consume only natural gas, the emissions units are considered inherently clean and no visible emissions monitoring is required. Pursuant to OAC rule 3745-18-06(A), they are exempt from the SO₂ emissions limitation specified in OAC rule 3745-18-06(G) because they burn only natural gas.

5. Conclusion:

The terms and conditions contained within P0139272 are sufficient to ensure compliance with all state and federal regulations and are consistent with current Division of Air Pollution Control policy and guidance.



**Environmental
Protection
Agency**

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Will-Power OH LLC - Apollo

Facility ID: 0387022027
Permit Number: P0139272
Permit Type: Initial Installation
Issued: 03/05/2026
Effective: To be entered upon final issuance

Division of Air Pollution Control
Permit-to-Install
for
Will-Power OH LLC - Apollo

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Authorization

Facility ID: 0387022027
Facility Description: Will-Power OH LLC - Apollo
Application Number(s): A0080762, A0081069
Permit Number: P0139272
Permit Type: Permit-To-Install
Permit Fee: \$6,672.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 03/05/2026
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:

Will-Power OH LLC - Apollo
11902 Middleton Pike
Bowling Green, OH 43402

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

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Rd.
Bowling Green, OH 43402
(419)352-8461

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:P0139272

Permit Description:Initial Installation PTI for (6) natural gas fired engines and (21) natural gas fired turbines

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

Group Name:Caterpillar Generator Engines

Emissions Unit ID:	P003
Company Equipment ID:	CAT G3520 #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	CAT G3520 #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	CAT G3520 #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	CAT G3520 #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	CAT G3520 #5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	CAT G3520 #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name:Siemens SGT-400 Turbines

Emissions Unit ID:	P018
Company Equipment ID:	Siemens SGT-400 #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P019
Company Equipment ID:	Siemens SGT-400 #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P020
Company Equipment ID:	Siemens SGT-400 #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P021
Company Equipment ID:	Siemens SGT-400 #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P022
Company Equipment ID:	Siemens SGT-400 #5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P023
Company Equipment ID:	Siemens SGT-400 #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name:Siemens SGT-800 Turbines

Emissions Unit ID:	P024
Company Equipment ID:	Siemens SGT-800 #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P025
Company Equipment ID:	Siemens SGT-800 #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name:Siemens SGT-A35 Turbines

Emissions Unit ID:	P015
Company Equipment ID:	Siemens SGT-A35 #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P016
Company Equipment ID:	Siemens SGT-A35 #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P017
Company Equipment ID:	Siemens SGT-A35 #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name:Solar Titan T-130 Turbines

Emissions Unit ID:	P009
Company Equipment ID:	Solar Titan 130 #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	Solar Titan 130 #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P011
Company Equipment ID:	Solar Titan 130 #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P012
Company Equipment ID:	Solar Titan 130 #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P013
Company Equipment ID:	Solar Titan 130 #5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P014
Company Equipment ID:	Solar Titan 130 #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P026
Company Equipment ID:	Solar Titan 130 #7
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P027
Company Equipment ID:	Solar Titan 130 #8
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install
Will-Power OH LLC - Apollo
Permit Number: P0139272
Facility ID: 0387022027

Effective Date: To be entered upon final issuance

Emissions Unit ID:	P028
Company Equipment ID:	Solar Titan 130 #9
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P029
Company Equipment ID:	Solar Titan 130 #10
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/m ³ = 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/m ³ = 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 ₂ S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H ₂ SO 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/m ³ = 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, Northwest District 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, Northwest District 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, Northwest District 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, Northwest District 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, Northwest District 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, Northwest District 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, Northwest District 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.



**Environmental
Protection
Agency**

Draft Permit-to-Install
Will-Power OH LLC - Apollo
Permit Number: P0139272
Facility ID: 0387022027

Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions

Effective Date: To be entered upon final issuance

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.

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group - Caterpillar Generator Engines: P003, P004, P005, P006, P007, P008,

EU ID	Operations, Property and/or Equipment Description
P003	Caterpillar G3520 Generator Engine #1
P004	Caterpillar G3520 Generator Engine #2
P005	Caterpillar G3520 Generator Engine #3
P006	Caterpillar G3520 Generator Engine #4
P007	Caterpillar G3520 Generator Engine #5
P008	Caterpillar G3520 Generator Engine #6

- 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) b)(1)g., d)(7) through d)(10), and e)(3)

- b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(5)(b)	Particulate emissions shall not exceed 0.062 pounds per million Btu of actual heat input.
c.	OAC rule 3745-18-06	See b)(2)d.
d.	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, SO ₂ , PM ₁₀ , and PM _{2.5} emissions from this air contaminant source because the PTE is less than 10 tons per year as vented to the oxidation catalyst and SCR system.
e.	OAC rule 3745-31-05(F)	NO _x emissions shall not exceed 0.74 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 0.73 pounds per hour, excluding periods of startup and shutdown.



		VOC emissions shall not exceed 0.56 pounds per hour, excluding periods of startup and shutdown. NO_x emissions shall not exceed 2.46 pounds per startup or shutdown event. CO emissions shall not exceed 3.45 pounds per startup or shutdown event. VOC emissions shall not exceed 0.51 pound per startup or shutdown event. NO_x emissions shall not exceed 3.32 tons per rolling, 12-month period from startup and shutdown events and normal operations. CO emissions shall not exceed 3.31 tons per rolling, 12-month period from startup and shutdown events and normal operations. VOC emissions shall not exceed 2.45 tons per rolling, 12-month period from startup and shutdown events and normal operations. See b)(2)a. through b)(2)c. below.
f.	OAC rule 3745-110-02(A)(2)(b) and OAC rule 3745-110-03(F)(2)	The permittee shall comply with 40 CFR Part 60, Subpart JJJJ in lieu of OAC Chapter 3745-110 because the emissions limitations and requirements of 40 CFR Part 60, Subpart JJJJ are more stringent than the emissions limitations and requirements of OAC Chapter 3745-110.
g.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(7) through d)(10) below.
h.	40 CFR Part 60, Subpart JJJJ [40 CFR 60.4230 – 60.4248] 40 CFR 60.4233(e) [The affected source is a 3,400 hp, non-emergency, natural gas-fired engine with lean burn combustion and vented to an oxidation catalyst and SCR system.]	The exhaust emissions from this engine shall not exceed: 1.0 grams of NO _x per horsepower hour or 82 ppmvd at 15% O ₂ ; 2.0 grams of CO per horsepower hour or 270 ppmvd at 15% O ₂ ; and 0.7 grams of VOC (excluding formaldehyde) per horsepower hour or 60 ppmvd at 15% O ₂ .
i.	40 CFR Part 60, Subpart A [40 CFR 60.1 – 60.19]	Table 3 to 40 CFR Part 60, Subpart JJJJ- "Applicability of General Provisions to Subpart JJJJ" identifies which parts of the General Provisions in 40 CFR Part 60.1 – 60.19 apply.
j.	40 CFR Part 63, Subpart ZZZZ	See b)(2)e. and b)(2)f. below.



	[40 CFR 63. 6580 - 40 CFR 63.6675] [The affected source is a new 4SLB stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions.]	
k.	40 CFR Part 63, Subpart A [40 CFR 63.1 – 63.16]	Table 8 to 40 CFR Part 63, Subpart ZZZZ- "Applicability of General Provisions to Subpart ZZZZ" identifies which parts of the General Provisions in 40 CFR Part 63.1 – 63.16 apply.

(2) Additional Terms and Conditions

- a. The legally and practically enforceable emission limitations in b)(1)e. are established for the purpose of representing potential to emit (PTE) and are based on the operational restrictions contained in c)(1). The legally and practically enforceable emission limitations are voluntary restrictions.
- b. "Startup" is defined as beginning with engine fuel ignition and ends when the SCR catalyst bed temperature reaches the minimum temperature necessary for the SCR to control NO_x emissions.
- c. "Shutdown" is defined as the process of taking the engine off-line and begins when the SCR catalyst bed temperature falls below the minimum temperatures necessary for the SCR to control NO_x emissions.
- d. These emissions units (EUs) are exempt from the SO₂ emissions limitations specified in OAC rule 3745-18-06(D), (F), and (G) pursuant to OAC rule 3745-18-06(A).
- e. The 4SLB stationary RICE shall meet one of the following emissions limitations except during periods of startup:
 - i. Reduce CO emissions by 93 percent or more; or
 - ii. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O₂.
- f. During periods of startup, the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations in b)(2)b. apply.

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically enforceable requirements which represent PTE [See b)(2)a.]:
 - a. The permittee shall burn only natural gas in this emissions unit.
 - b. The NO_x, CO, and VOC emissions from this emissions unit shall be vented to an oxidation catalyst and SCR system at all times when the emissions unit is in operation except during startup and shutdown.
 - c. The permittee shall meet the following operating limitations, except during periods of startup:

- i. Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load $\pm$ 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and
 - ii. Maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1,350°F.
 - d. Startup and shutdown events shall each be limited to 40 events per rolling, 12-month period.
- (2) See 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248).
- (3) See 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 – 63.6675).
- d) Monitoring and/or Recordkeeping Requirements
 - (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (2) The permittee shall install, operate, and maintain the oxidation catalyst and SCR system, including the ammonia injection system, 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.
 - (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual for the oxidation catalyst and SCR system, 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.
 - (4) The permittee shall maintain the following information for maintenance and repairs performed on the oxidation catalyst and SCR system:
 - 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.
 - (5) The permittee shall properly install, operate, and maintain equipment that continuously monitors the following information for the oxidation catalyst and SCR system at all times when the associated engine is in operation and records of hourly average data for:
 - a. the pressure drop across the control system;
 - b. the NO_x concentration at the SCR catalyst bed exhaust; and
 - c. the temperature of the SCR catalyst bed.

Each monitoring device shall be equipped with a mechanism to detect parameters that exceed recommended thresholds as established per d)(2) and trigger an alarm to operators when the control system is not operating within the recommended conditions.
 - (6) The permittee shall maintain monthly records of the following information:
 - a. the hours of operation, excluding startup and shutdown;
 - b. the number of startup events;



- c. the number of shutdown events;
- d. the NO_x emissions, in pounds or tons;
- e. the CO emissions, in pounds or tons;
- f. the VOC emissions, in pounds or tons;
- g. the rolling, 12-month summation of the number of startup events;
- h. the rolling, 12-month summation of the number of shutdown events;
- i. the rolling, 12-month NO_x emissions, in tons;
- j. the rolling, 12-month CO emissions, in tons; and
- k. the rolling, 12-month VOC emissions, in tons.

Emissions from startup and shutdown events shall be calculated using the emissions data provided by the engine manufacturer and identified in b)(1)e. above. Emissions during all other periods of operation shall be calculated by multiplying the hours of operation, excluding startup and shutdown, by the maximum hourly emissions rate provided by the engine manufacturer and identified in b)(1)e. above or the results of most recent testing as conducted per f)(1).

- (7) The PTI application for emissions units P001 through P030 and B001 through B022 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/m³): 17.41

Maximum Hourly Emission Rate (lb/hr): 0.21 lb/hr (per EU) from P003 – P008, 3.00 lbs/hr (per EU) from P009 – P014 and P026 – P029, 4.87 lbs/hr (per EU) from P015 – P017, 2.48 lbs/hr (per EU) from P018 – P023, and 8.65 lbs/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration (µg/m³): 30.43

MAGLC (µg/m³): 414.60

- ii. Toxic Contaminant: formaldehyde

TLV (mg/m³): 0.123

Maximum Hourly Emission Rate (lb/hr): 0.84 lb/hr (per EU) from P003 – P008, 0.27 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.28 lb/hr (per EU) from P015 – P017, 0.30 lb/hr (per EU) from P018 – P023, and 0.39 lb/hr (per EU) from P024 – P025. The emissions from P001 – P002, P030, and B001 – B022 combined are less than 2.8 x 10⁻³ lb/hr.

Predicted Annual and One-Hour Maximum Ground-Level Concentration (µg/m³): 0.129 (annual) and 12.22 (1-hour)

Alternative acceptable concentration (µg/m³): 0.8 (annual) and 49 (1-hour max)

- iii. Toxic Contaminant: acetaldehyde

TLV (mg/m³): 33.20

Maximum Hourly Emission Rate (lb/hr): 0.111 lb/hr (per EU) from P003 – P008, 0.004 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.007 lb/hr (per EU) from P015 – P017, 0.004 lb/hr (per EU) from P018 – P023, and 0.014 lb/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration (µg/m³): 1.59

MAGLC (µg/m³): 790.36

The permittee has demonstrated that emissions of ammonia, formaldehyde, and acetaldehyde from emissions units P001 through P030 and B001 through B022 are calculated to be less than 80 percent of the MAGLC for ammonia and acetaldehyde and less than 80 percent of the alternative acceptable concentrations for formaldehyde; 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).

- (8) 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:
- 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.
 - 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.
 - 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.

- (9) 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 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.).
 - The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated per the *Toxic Air Contaminant Statute*, ORC 3704.03(F).
 - 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.
 - 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.

- (10) 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.
- (11) See 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248).
- (12) See 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 – 63.6675).

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. All exceedances of the number of startup and shutdown events identified in c)(1)d.; and
 - b. All exceedances of the rolling, 12-month NO_x, CO, and VOC emissions limitations.

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.

- (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 included as part of the Title V annual compliance certification.

- (4) See 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248).
- (5) See 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 – 63.6675).

f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, emission testing for this EU 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 EU will be operated, but not later than 180 days after initial startup of the EU.
- b. The emission testing shall be conducted to demonstrate initial compliance with the hourly NO_x, CO, and VOC emissions limitations established under OAC rule 3745-31-05(F); the NO_x, CO, and VOC emissions standards established under 40 CFR 60.4233(e); and the minimum CO reduction requirement or the formaldehyde concentration limitation established under 40 CFR 63.6600(b).
- c. Subsequent performance tests for NO_x, CO, and VOC shall be conducted every 8,760 hours or 3 years, whichever comes first in accordance with 40 CFR 60.4243(b)(2)(ii).
- d. Subsequent performance tests for CO reduction or formaldehyde concentration shall be conducted semiannually in accordance with Table 3 to 40 CFR Part 63, Subpart ZZZZ. The frequency of subsequent performance tests may be reduced to annually after compliance has been demonstrated during two consecutive tests. If the results of any subsequent annual performance test indicate the EU is not in compliance with the CO or formaldehyde emission limitations, or the EU deviates from any operating limitations, then semiannual performance tests must be resumed.
- e. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

Emissions Factors	Limits/Emissions	Test Methods and Procedures
The hourly VOC emissions limitation established under OAC rule 3745-31-05(F)		VOC emissions shall be calculated by summing the VOC emissions, as propane, and formaldehyde emissions. The VOC emissions, as propane, shall be determined using Methods 1 through 4 or 19, and 18 or 25A, as applicable, of 40 CFR Part 60, Appendix A. The formaldehyde emissions shall be determined using Methods 1 through 4 or 19 of 40 CFR Part 60, Appendix A, and Method 320 or 323 of 40 CFR Part 63, Appendix A or ASTM D6348-03, provided in ASTM D6348-03 Annex A5, the percent R must be greater than or equal to 70 and less than or equal to 130.
The hourly NO _x and CO emissions limitations established under OAC rule 3745-31-05(F) and the NO _x , CO, and VOC limits established pursuant to 40 CFR Part 60, Subpart JJJJ		The methods and procedures specified in 40 CFR 60.4244 and Table 2 to 40 CFR Part 60, Subpart JJJJ.
CO reduction requirement or the formaldehyde concentration limitation established pursuant to 40 CFR Part 63, Subpart ZZZZ		The methods and procedures specified in 40 CFR 63.6620 and Table 4 to 40 CFR Part 63, Subpart ZZZZ

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



- f. During the emissions testing, the EU 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 EU 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.
 - g. Not later than 60 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 EU 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).
 - h. 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 EU and the testing procedures provide a valid characterization of the emissions from the EU and/or the performance of the control equipment.
 - i. 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 60 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.
- (2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emissions Limitation

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

Applicable Compliance Method

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR Part 60, Appendix A.
 - b. Emissions Limitation

Particulate emissions shall not exceed 0.062 pounds per million Btu of actual heat input.



Applicable Compliance Method

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).

c. Emissions Limitations

NO_x emissions shall not exceed 0.74 pounds per hour, excluding periods of startup and shutdown.

CO emissions shall not exceed 0.73 pounds per hour, excluding periods of startup and shutdown.

VOC emissions shall not exceed 0.56 pounds per hour, excluding periods of startup and shutdown.

Applicable Compliance Method

Compliance with these emissions limitations shall be demonstrated through emissions testing performed in accordance with f)(1) above.

d. Emissions Limitations

NO_x emissions shall not exceed 3.32 tons per rolling, 12-month period from startup and shutdown events and normal operations, combined.

CO emissions shall not exceed 3.31 tons per rolling, 12-month period, from startup and shutdown events and normal operations, combined

VOC emissions shall not exceed 2.45 tons per rolling, 12-month period from startup and shutdown events and normal operations, combined.

Applicable Compliance Method

Compliance with these emissions limitations shall be determined in accordance with the monitoring and/or recordkeeping specified in d) above.

e. Emissions Limitations

NO_x emissions shall not exceed 2.46 pounds per startup or shutdown event.

CO emissions shall not exceed 3.45 pounds per startup or shutdown event.

VOC emissions shall not exceed 0.51 pound per startup or shutdown event.

Applicable Compliance Method

These emissions limitations were established based on the manufacturer's information provided by the permittee. If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 or 19, and 7E for NO_x, 10 for CO, 18 or 25A for VOC (excluding formaldehyde), and 40 CFR Part 63, Appendix A, Method 320 or 323 or ASTM D6348-03 for formaldehyde.

f. Emissions Limitations

The exhaust emissions from this engine shall not exceed:

1.0 grams of NO_x per horsepower hour or 82 ppmvd at 15% O₂;

2.0 grams of CO per horsepower hour or 270 ppmvd at 15% O₂; and

0.7 grams of VOC (excluding formaldehyde) per horsepower hour or 60 ppmvd at 15% O₂.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) above and the requirements specified in 40 CFR 60.4243(b)(2), 40 CFR 60.4244, and Table 2 to 40 CFR Part 60, Subpart JJJJ.

g. Emissions Limitation

The 4SLB stationary RICE shall meet one of the following emissions limitations except during periods of startup: reduce CO emissions by 93 percent or more; or limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O₂.

Applicable Compliance Method

Initial compliance shall be demonstrated through emissions testing performed in accordance with f)(1) above and the requirements specified in 40 CFR 63.6630 and Table 5 to 40 CFR Part 63, Subpart ZZZZ. Continuous compliance shall be demonstrated through emissions testing performed in accordance with f)(1) above and the requirements specified in 40 CFR 63.6640 and Table 6 to 40 CFR Part 63, Subpart ZZZZ.

g) Miscellaneous Requirements

(1) None.

2. Emissions Unit Group - Siemens SGT-400 Turbines: P018, P019, P020, P021, P022, P023

EU ID	Operations, Property and/or Equipment Description
P018	Siemens SGT-400 Generator Turbine #1
P019	Siemens SGT-400 Generator Turbine #2
P020	Siemens SGT-400 Generator Turbine #3
P021	Siemens SGT-400 Generator Turbine #4
P022	Siemens SGT-400 Generator Turbine #5
P023	Siemens SGT-400 Generator Turbine #6

- 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) b)(1)f., d)(7) through d)(10), and e)(3)

- b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(4)	Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.
c.	OAC rule 3745-31-05(F)	NO_x emissions shall not exceed 1.04 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 1.11 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 0.83 pound per hour, excluding periods of startup and shutdown. NO_x emissions shall not exceed 4.00 pounds per startup or shutdown event.



		CO emissions shall not exceed 64.00 pounds per startup event. CO emissions shall not exceed 52.00 pounds per shutdown event. VOC emissions shall not exceed 12.00 pounds per startup or shutdown event. NO_x emissions shall not exceed 4.71 tons per rolling, 12-month period from startup and shutdown events and normal operations. CO emissions shall not exceed 7.17 tons per rolling, 12-month period from startup and shutdown events and normal operations. VOC emissions shall not exceed 4.09 tons per rolling, 12-month period from startup and shutdown events and normal operations. See b)(2)a. through b)(2)c. below.
d.	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, SO ₂ , PM ₁₀ , and PM _{2.5} emissions from this air contaminant source because the PTE is less than 10 tons per year as vented to the oxidation catalyst and SCR system.
e.	OAC rule 3745-110-02(A)(2)(b) and OAC rule 3745-110-03(E)(1)(b)(i)	The permittee shall comply with 40 CFR Part 60, Subpart KKKKa in lieu of OAC Chapter 3745-110 because the emissions limitations and requirements of 40 CFR Part 60, Subpart KKKKa are more stringent than the emissions limitations and requirements of OAC Chapter 3745-110.
f.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(7) through d)(10) below.
g.	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 heat input at peak load greater than 10.7 gigajoules (10 MMBtu) per hour that commenced construction after December 13, 2024. This turbine is categorized as a new installation firing natural gas with a utilization rate over 45%.]	NO_x emissions shall not exceed 15 ppm at 15% O₂ or 24 ng/J of useful output (0.055 lb/MMBtu). SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.
h.	40 CFR Part 60, Subpart TTTTa	See b)(2)d. below.



	[40 CFR 60.5508a – 60.5580a]	
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 63, Subpart YYYY [40 CFR 63.6080 - 40 CFR 63.6175] [The affected source is a new lean premix gas-fired simple cycle stationary combustion turbine located at a major source of HAP emissions.]	Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O ₂ , 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.
k.	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.

(2) Additional Terms and Conditions

- a. The legally and practically enforceable emission limitations in b)(1)c. are established for the purpose of representing potential to emit (PTE) and are based on the operational restrictions contained in c)(1). The legally and practically enforceable emission limitations in b)(1)c. are voluntary restrictions.
- b. "Startup" is defined as beginning with turbine fuel ignition and ends when the SCR catalyst bed temperature reaches the minimum temperature necessary for the SCR to control NO_x emissions.
- c. "Shutdown" is defined as the process of taking the turbine off-line and begins when the SCR catalyst bed temperature falls below the minimum temperatures necessary for the SCR to control NO_x emissions.
- d. This facility will not sell electricity to a utility power distribution system and these emissions units are therefore not subject to 40 CFR Part 60, Subpart TTTTa. If this facility begins selling electricity to a utility power distribution system at any point, then these emissions units will be subject to the provisions of this subpart. The permittee shall apply for and obtain a permit modification prior to selling electricity to a utility power distribution system.

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically enforceable requirements which represent PTE [See b)(2)a.]:
 - a. The permittee shall burn only natural gas in this emissions unit.
 - b. The NO_x, CO, and VOC emissions from this emissions unit shall be vented to an oxidation catalyst and SCR system at all times when the emissions unit is in operation except during startup and shutdown.



- c. 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.
 - d. Startup and shutdown events shall each be limited to 40 events per rolling, 12-month period.
 - (2) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).
 - (3) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).
- d) Monitoring and/or Recordkeeping Requirements
 - (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (2) The permittee shall install, operate, and maintain the oxidation catalyst and SCR system, including the ammonia injection system, 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.
 - (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual for the oxidation catalyst and SCR system, 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.
 - (4) The permittee shall maintain the following information for maintenance and repairs performed on the oxidation catalyst and SCR system:
 - 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.
 - (5) The permittee shall properly install, operate, and maintain equipment that continuously monitors the following information for the oxidation catalyst and SCR system at all times when the associated engine is in operation and records of hourly average data for:
 - a. the pressure drop across the control system;
 - b. the NO_x concentration at the SCR catalyst bed exhaust; and
 - c. the temperature of the SCR catalyst bed.Each monitoring device shall be equipped with a mechanism to detect parameters that exceed recommended thresholds as established per d)(2) and trigger an alarm to operators when the control system is not operating within the recommended conditions.
 - (6) The permittee shall maintain monthly records of the following information:
 - a. the hours of operation, excluding startup and shutdown;
 - b. the number of startup events;
 - c. the number of shutdown events;
 - d. the NO_x emissions, in pounds or tons;



- e. the CO emissions, in pounds or tons;
- f. the VOC emissions, in pounds or tons;
- g. the rolling, 12-month summation of the number of startup events;
- h. the rolling, 12-month summation of the number of shutdown events;
- i. the rolling, 12-month NO_x emissions, in tons;
- j. the rolling, 12-month CO emissions, in tons; and
- k. the rolling, 12-month VOC emissions, in tons.

Emissions from startup and shutdown events shall be calculated using the emissions data provided by the turbine manufacturer and identified in b)(1)c. above. Emissions during all other periods of operation shall be calculated by multiplying the hours of operation, excluding startup and shutdown, by the maximum hourly emissions rate provided by the turbine manufacturer and identified in b)(1)c. above or the results of most recent testing as conducted per f)(1).

- (7) The PTI application for emissions units P001 through P030 and B001 through B022 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/m³): 17.41

Maximum Hourly Emission Rate (lb/hr): 0.21 lb/hr (per EU) from P003 – P008, 3.00 lbs/hr (per EU) from P009 – P014 and P026 – P029, 4.87 lbs/hr (per EU) from P015 – P017, 2.48 lbs/hr (per EU) from P018 – P023, and 8.65 lbs/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration (µg/m³): 30.43

MAGLC (µg/m³): 414.60

- ii. Toxic Contaminant: formaldehyde
TLV (mg/m³): 0.123
Maximum Hourly Emission Rate (lb/hr): 0.84 lb/hr (per EU) from P003 – P008, 0.27 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.28 lb/hr (per EU) from P015 – P017, 0.30 lb/hr (per EU) from P018 – P023, and 0.39 lb/hr (per EU) from P024 – P025. The emissions from P001 – P002, P030, and B001 – B022 combined are less than 2.8×10^{-3} lb/hr.
Predicted Annual and One-Hour Maximum Ground-Level Concentration (µg/m³): 0.129 (annual) and 12.22 (1-hour)
Alternative acceptable concentration (µg/m³): 0.8 (annual) and 49 (1-hour max)
- iii. Toxic Contaminant: acetaldehyde
TLV (mg/m³): 33.20
Maximum Hourly Emission Rate (lb/hr): 0.111 lb/hr (per EU) from P003 – P008, 0.004 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.007 lb/hr (per EU) from P015 – P017, 0.004 lb/hr (per EU) from P018 – P023, and 0.014 lb/hr (per EU) from P024 – P025.
Predicted One-Hour Maximum Ground-Level Concentration (µg/m³): 1.59
MAGLC (µg/m³): 790.36

The permittee has demonstrated that emissions of ammonia, formaldehyde, and acetaldehyde from emissions units P001 through P030 and B001 through B022 are calculated to be less than 80 percent of the MAGLC for ammonia and acetaldehyde and less than 80 percent of the alternative acceptable concentrations for formaldehyde; 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).

- (8) 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.

- (9) 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.
- (10) 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.
- (11) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).
- (12) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. All exceedances of the number of startup and shutdown events identified in c)(1)d.; and
 - b. All exceedances of the rolling, 12-month NO_x, CO, and VOC emissions limitations.



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.

- (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:
- The original model input.
 - The updated model input.
 - The reason for each change to any input parameter.
 - A summary of the results of the updated modeling, including the input changes.
 - 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 included as part of the Title V annual compliance certification.

- (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).

f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, emission testing for this EU in accordance with the following requirements:
- The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the EU will be operated, but not later than 180 days after initial startup of the EU.
 - The emission testing shall be conducted to demonstrate initial compliance with the hourly NO_x, CO, and VOC emissions limitations established under OAC rule 3745-31-05(F); the NO_x emissions limitation established under 40 CFR 60.4320a(a); and the formaldehyde concentration limitation established under 40 CFR 63.6100.
 - Any subsequent performance tests for NO_x shall be conducted in accordance with 40 CFR 60.4333a and 60.4400a(a).
 - Subsequent performance tests for formaldehyde concentration shall be conducted annually as specified in Table 3 to 40 CFR Part 63, Subpart YYYY.
 - The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

Emissions Factors	Limits/Emissions	Test Methods and Procedures
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The hourly VOC emissions limitation established under OAC rule 3745-31-05(F)	VOC emissions shall be calculated by summing the VOC emissions, as propane, and formaldehyde emissions. The VOC emissions, as propane, shall be determined using Methods 1 through 4 or 19, and 18 or 25A, as applicable, of 40 CFR Part 60, Appendix A. The formaldehyde emissions shall be determined using Methods 1 through 4 or 19 of 40 CFR Part 60, Appendix A, and Method 320 or 323 of 40 CFR Part 63, Appendix A or ASTM D6348-12e1, provided that the test plan preparation and implementation provisions of Annexes A1-A8 are followed and the percent R must be greater than or equal to 70 and less than or equal to 130.
The hourly NO _x emissions limitation established under OAC rule 3745-31-05(F) and the NO _x emissions limitation established pursuant to 40 CFR Part 60, Subpart KKKKa	The methods and procedures specified in 40 CFR 60.4400a.
The hourly CO emissions limitations established under OAC rule 3745-31-05(F)	Methods 1 through 4 or 19, and 10 of 40 CFR Part 60, Appendix A
The formaldehyde concentration limitation established pursuant to 40 CFR Part 63, Subpart YYYY	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.

- f. During the emissions testing, the EU 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 EU 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.
- g. Not later than 60 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 EU 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).

- h. 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 EU and the testing procedures provide a valid characterization of the emissions from the EU and/or the performance of the control equipment.
- i. 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 60 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.

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

a. Emissions Limitation

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

Applicable Compliance Method

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR Part 60, Appendix A.

b. Emissions Limitation

Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.

Applicable Compliance Method

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).

c. Emissions Limitations

NO_x emissions shall not exceed 1.04 pounds per hour, excluding periods of startup and shutdown.

CO emissions shall not exceed 1.11 pounds per hour, excluding periods of startup and shutdown.

VOC emissions shall not exceed 0.83 pounds per hour, excluding periods of startup and shutdown.

Applicable Compliance Method

Compliance with these emissions limitations shall be demonstrated through emissions testing performed in accordance with f)(1) above.



d. Emissions Limitations

NO_x emissions shall not exceed 4.71 tons per rolling, 12-month period from startup and shutdown events and normal operations.

CO emissions shall not exceed 7.17 tons per rolling, 12-month period from startup and shutdown events and normal operations.

VOC emissions shall not exceed 4.09 tons per rolling, 12-month period from startup and shutdown events and normal operations.

Applicable Compliance Method

Compliance with these emissions limitations shall be determined in accordance with the monitoring and/or recordkeeping specified in d) above.

e. Emissions Limitations

NO_x emissions shall not exceed 4.00 pounds per startup or shutdown event.

CO emissions shall not exceed 64.00 pounds per startup event.

CO emissions shall not exceed 52.00 pounds per shutdown event.

VOC emissions shall not exceed 12.00 pounds per startup or shutdown event.

Applicable Compliance Method

These emissions limitations were established based on the manufacturer's information provided by the permittee. If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 or 19, and 7E for NO_x, 10 for CO, 18 or 25A for VOC (excluding formaldehyde), and 40 CFR Part 63, Appendix A, Method 320 or 323 or ASTM D6348-12e1 for formaldehyde.

f. Emissions Limitation

NO_x emissions shall not exceed 15 ppm at 15% O₂ or 24 ng/J of useful output (0.055 lb/MMBtu).

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) above and the requirements specified in 40 CFR 60.4400a.

g. Emissions Limitation

SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.

Applicable Compliance Method

The permittee shall perform an initial performance test, as required in 40 CFR 60.8, and annual performance tests (no more than 12 calendar months following the previous performance test). The permittee shall use one of the four methodologies specified in 40 CFR 60.4333a(d) to demonstrate compliance.

h. Emissions Limitation



Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O₂, except during turbine startup.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) 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.

3. Emissions Unit Group - Siemens SGT-800 Turbines: P024, P025

EU ID	Operations, Property and/or Equipment Description
P024	Siemens SGT-800 Generator Turbine #1
P025	Siemens SGT-800 Generator Turbine #2

- 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) b)(1)e., d)(7) through d)(10), and e)(3)

- b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(4)	Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.
c.	OAC rule 3745-31-05(A)(3) ORC 3704.03(T)	NO _x emissions shall not exceed 3.59 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 3.28 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 3.62 pounds per hour, excluding periods of startup and shutdown. NO _x emissions shall not exceed 4.00 pounds per startup or shutdown event. CO emissions shall not exceed 64.00 pounds per startup event. CO emissions shall not exceed 52.00 pounds per shutdown event. VOC emissions shall not exceed 12.00 pounds per startup or shutdown event.



		NO_x emissions shall not exceed 15.84 tons per rolling, 12-month period from startup and shutdown events and normal operations. CO emissions shall not exceed 16.64 tons per rolling, 12-month period from startup and shutdown events and normal operations. VOC emissions shall not exceed 16.30 tons per rolling, 12-month period from startup and shutdown events and normal operations. SO₂ emissions shall not exceed 2.00 tons per month as a rolling, 12-month average. PM₁₀ and PM_{2.5} emissions shall not exceed 1.37 tons per month as a rolling, 12-month average. See b)(2)a. through b)(2)c. below.
d.	OAC rule 3745-110-02(A)(2)(b) and OAC rule 3745-110-03(E)(1)(b)(i)	The permittee shall comply with 40 CFR Part 60, Subpart KKKKa in lieu of OAC Chapter 3745-110 because the emissions limitations and requirements of 40 CFR Part 60, Subpart KKKKa are more stringent than the emissions limitations and requirements of OAC Chapter 3745-110.
e.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(7) through d)(10) below.
f.	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 heat input at peak load greater than 10.7 gigajoules (10 MMBtu) per hour that commenced construction after December 13, 2024. This turbine is categorized as a new installation firing natural gas with a utilization rate over 45%.]	NO_x emissions shall not exceed 15 ppm at 15% O₂ or 24 ng/J of useful output (0.055 lb/MMBtu). SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.
g.	40 CFR Part 60, Subpart TTTTa [40 CFR 60.5508a – 60.5580a]	See b)(2)d. below.
h.	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.
i.	40 CFR Part 63, Subpart YYYY [40 CFR 63.6080 - 40 CFR 63.6175] [The affected source is a new lean premix gas-fired simple cycle stationary combustion turbine located at a major source of HAP emissions.]	Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O ₂ , 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.
j.	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.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under ORC rule 3704.03(T) have been determined to be compliance with the rolling 12-month NO_x, CO, VOC, PM₁₀, PM_{2.5}, and SO₂ emission limitations established under OAC rule 3745-31-05(A)(3) and the operational restrictions in c)(1).
- b. "Startup" is defined as beginning with turbine fuel ignition and ends when the SCR catalyst bed temperature reaches the minimum temperature necessary for the SCR to control NO_x emissions.
- c. "Shutdown" is defined as the process of taking the turbine off-line and begins when the SCR catalyst bed temperature falls below the minimum temperatures necessary for the SCR to control NO_x emissions.
- d. This facility will not sell electricity to a utility power distribution system and these emissions units are therefore not subject to 40 CFR Part 60, Subpart TTTTa. If this facility begins selling electricity to a utility power distribution system at any point, then these emissions units will be subject to the provisions of this subpart. The permittee shall apply for and obtain a permit modification prior to selling electricity to a utility power distribution system.

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing BAT requirements which represent PTE [See b)(2)a.]:
 - a. The permittee shall burn only natural gas in this emissions unit.
 - b. The NO_x, CO, and VOC emissions from this emissions unit shall be vented to an oxidation catalyst and SCR system at all times when the emissions unit is in operation except during startup and shutdown.
 - c. 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.

- d. Startup and shutdown events shall each be limited to 40 events per rolling, 12-month period.
- (2) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).
- (3) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).
- d) Monitoring and/or Recordkeeping Requirements
 - (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (2) The permittee shall install, operate, and maintain the oxidation catalyst and SCR system, including the ammonia injection system, 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.
 - (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual for the oxidation catalyst and SCR system, 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.
 - (4) The permittee shall maintain the following information for maintenance and repairs performed on the oxidation catalyst and SCR system:
 - 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.
 - (5) The permittee shall properly install, operate, and maintain equipment that continuously monitors the following information for the oxidation catalyst and SCR system at all times when the associated engine is in operation and records of hourly average data for:



- a. the pressure drop across the control system;
- b. the NO_x concentration at the SCR catalyst bed exhaust; and
- c. the temperature of the SCR catalyst bed.

Each monitoring device shall be equipped with a mechanism to detect parameters that exceed recommended thresholds as established per d)(2) and trigger an alarm to operators when the control system is not operating within the recommended conditions.

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

- a. the hours of operation, excluding startup and shutdown;
- b. the number of startup events;
- c. the number of shutdown events;
- d. the NO_x emissions, in pounds or tons;
- e. the CO emissions, in pounds or tons;
- f. the VOC emissions, in pounds or tons;
- g. the SO₂ emissions, in pounds or tons;
- h. the PM₁₀ and PM_{2.5} emissions, in pounds or tons;
- i. the rolling, 12-month summation of the number of startup events;
- j. the rolling, 12-month summation of the number of shutdown events;
- k. the rolling, 12-month NO_x emissions, in tons;
- l. the rolling, 12-month CO emissions, in tons;
- m. the rolling, 12-month VOC emissions, in tons; and
- n. the monthly SO₂ emissions as a 12-month, rolling average, in tons.
- o. the monthly PM₁₀ and PM_{2.5} emissions as a 12-month, rolling average, in tons.

Emissions from startup and shutdown events shall be calculated using the emissions data provided by the turbine manufacturer and identified in b)(1)c. above. Emissions during all other periods of operation shall be calculated by multiplying the hours of operation, excluding startup and shutdown, by the maximum hourly emissions rate provided by the turbine manufacturer and identified in b)(1)c. above or the results of most recent testing as conducted per f)(1).

(7) The PTI application for emissions units P001 through P030 and B001 through B022 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/m³): 17.41

Maximum Hourly Emission Rate (lb/hr): 0.21 lb/hr (per EU) from P003 – P008, 3.00 lbs/hr (per EU) from P009 – P014 and P026 – P029, 4.87 lbs/hr (per EU) from P015 – P017, 2.48 lbs/hr (per EU) from P018 – P023, and 8.65 lbs/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration (µg/m³): 30.43

MAGLC (µg/m³): 414.60

- ii. Toxic Contaminant: formaldehyde

TLV (mg/m³): 0.123

Maximum Hourly Emission Rate (lb/hr): 0.84 lb/hr (per EU) from P003 – P008, 0.27 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.28 lb/hr (per EU) from P015 – P017, 0.30 lb/hr (per EU) from P018 – P023, and 0.39 lb/hr

(per EU) from P024 – P025. The emissions from P001 – P002, P030, and B001 – B022 combined are less than 2.8×10^{-3} lb/hr.

Predicted Annual and One-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$): 0.129 (annual) and 12.22 (1-hour)

Alternative acceptable concentration ($\mu\text{g}/\text{m}^3$): 0.8 (annual) and 49 (1-hour max)

iii. Toxic Contaminant: acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lb/hr): 0.111 lb/hr (per EU) from P003 – P008, 0.004 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.007 lb/hr (per EU) from P015 – P017, 0.004 lb/hr (per EU) from P018 – P023, and 0.014 lb/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$): 1.59

MAGLC ($\mu\text{g}/\text{m}^3$): 790.36

The permittee has demonstrated that emissions of ammonia, formaldehyde, and acetaldehyde from emissions units P001 through P030 and B001 through B022 are calculated to be less than 80 percent of the MAGLC for ammonia and acetaldehyde and less than 80 percent of the alternative acceptable concentrations for formaldehyde; 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).

- (8) 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.

- (9) 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.
- (10) 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.
- (11) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).
- (12) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. All exceedances of the number of startup and shutdown events identified in c)(1)d.; and
 - b. All exceedances of the rolling, 12-month NO_x, CO, SO₂, PM₁₀, PM_{2.5}, and VOC emissions limitations.

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.

- (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 included as part of the Title V annual compliance certification.

(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).

f) **Testing Requirements**

- (1) The permittee shall conduct, or have conducted, emission testing for this EU 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 EU will be operated, but not later than 180 days after initial startup of the EU.
 - b. The emission testing shall be conducted to demonstrate initial compliance with the hourly NO_x, CO, and VOC emissions limitations established under OAC rule 3745-31-05(A)(3); the NO_x emissions limitation established under 40 CFR 60.4320a(a); and the formaldehyde concentration limitation established under 40 CFR 63.6100.
 - c. Any subsequent performance tests for NO_x shall be conducted in accordance with 40 CFR 60.4333a and 60.4400a(a).
 - d. Subsequent performance tests for formaldehyde concentration shall be conducted annually as specified in Table 3 to 40 CFR Part 63, Subpart YYYY.
 - e. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

Emissions Factors	Limits/Emissions	Test Methods and Procedures
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The hourly VOC emissions limitation established under OAC rule 3745-31-05(A)(3)	VOC emissions shall be calculated by summing the VOC emissions, as propane, and formaldehyde emissions. The VOC emissions, as propane, shall be determined using Methods 1 through 4 or 19, and 18 or 25A, as applicable, of 40 CFR Part 60, Appendix A. The formaldehyde emissions shall be determined using Methods 1 through 4 or 19 of 40 CFR Part 60, Appendix A, and Method 320 or 323 of 40 CFR Part 63, Appendix A or ASTM D6348-12e1, provided that the test plan preparation and implementation provisions of Annexes A1-A8 are followed and the percent R must be greater than or equal to 70 and less than or equal to 130.
The hourly NO _x emissions limitation established under OAC rule 3745-31-05(A)(3) and the NO _x emissions limitation established pursuant to 40 CFR Part 60, Subpart KKKKa	The methods and procedures specified in 40 CFR 60.4400a.
The hourly CO emissions limitations established under OAC rule 3745-31-05(A)(3)	Methods 1 through 4 or 19, and 10 of 40 CFR Part 60, Appendix A
The formaldehyde concentration limitation established pursuant to 40 CFR Part 63, Subpart YYYY	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.

- f. During the emissions testing, the EU 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 EU 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.
- g. Not later than 60 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 EU 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).

- h. 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 EU and the testing procedures provide a valid characterization of the emissions from the EU and/or the performance of the control equipment.
- i. 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 60 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.

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

a. Emissions Limitation

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

Applicable Compliance Method

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR Part 60, Appendix A.

b. Emissions Limitation

Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.

Applicable Compliance Method

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).

c. Emissions Limitations

NO_x emissions shall not exceed 3.59 pounds per hour, excluding periods of startup and shutdown.

CO emissions shall not exceed 3.28 pounds per hour, excluding periods of startup and shutdown.

VOC emissions shall not exceed 3.62 pounds per hour, excluding periods of startup and shutdown.

Applicable Compliance Method

Compliance with these emissions limitations shall be demonstrated through emissions testing performed in accordance with f)(1) above.



d. Emissions Limitations

NO_x emissions shall not exceed 15.84 tons per rolling, 12-month period from startup and shutdown events and normal operations.

CO emissions shall not exceed 16.64 tons per rolling, 12-month period from startup and shutdown events and normal operations.

VOC emissions shall not exceed 16.30 tons per rolling, 12-month period from startup and shutdown events and normal operations.

SO₂ emissions shall not exceed 2.00 tons per month based upon a 12-month, rolling average.

PM₁₀ and PM_{2.5} emissions shall not exceed 1.37 tons per month based upon a 12-month, rolling average.

Applicable Compliance Method

Compliance with these emissions limitations shall be determined in accordance with the monitoring and/or recordkeeping specified in d) above.

e. Emissions Limitations

NO_x emissions shall not exceed 4.00 pounds per startup or shutdown event.

CO emissions shall not exceed 64.00 pounds per startup event.

CO emissions shall not exceed 52.00 pounds per shutdown event.

VOC emissions shall not exceed 12.00 pounds per startup or shutdown event.

Applicable Compliance Method

These emissions limitations were established based on the manufacturer's information provided by the permittee. If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 or 19, and 7E for NO_x, 10 for CO, 18 or 25A for VOC (excluding formaldehyde), and 40 CFR Part 63, Appendix A, Method 320 or 323 or ASTM D6348-12e1 for formaldehyde.

f. Emissions Limitation

NO_x emissions shall not exceed 15 ppm at 15% O₂ or 24 ng/J of useful output (0.055 lb/MMBtu).

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) above and the requirements specified in 40 CFR 60.4400a.

g. Emissions Limitation

SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.

Applicable Compliance Method

The permittee shall perform an initial performance test, as required in 40 CFR 60.8, and annual performance tests (no more than 12 calendar months following the



previous performance test). The permittee shall use one of the four methodologies specified in 40 CFR 60.4333a(d) to demonstrate compliance.

h. Emissions Limitation

Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O₂, except during turbine startup.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) 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. Emissions Unit Group - Siemens SGT-A35 Turbines: P015, P016, P017

EU ID	Operations, Property and/or Equipment Description
P015	Siemens SGT-A35 Generator Turbine #1
P016	Siemens SGT-A35 Generator Turbine #2
P017	Siemens SGT-A35 Generator Turbine #3

- 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) b)(1)g., d)(7) through d)(10), and e)(3)

- b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(4)	Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.
c.	OAC rule 3745-31-05(F)	VOC emissions shall not exceed 1.58 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 12.00 pounds per startup or shutdown event. VOC emissions shall not exceed 7.37 tons per rolling, 12-month period from startup and shutdown events and normal operations. See b)(2)a., b)(2)c., and b)(2)d. below.
d.	OAC rule 3745-31-05(A)(3) ORC 3704.3(T)	NO _x emissions shall not exceed 2.33 pounds per hour, excluding periods of startup and shutdown. CO emissions shall not exceed 2.83 pounds per hour, excluding periods of startup and shutdown.



		NO_x emissions shall not exceed 4.00 pounds per startup or shutdown event. CO emissions shall not exceed 64.00 pounds per startup event. CO emissions shall not exceed 52.00 pounds per shutdown event. NO_x emissions shall not exceed 10.32 tons per rolling, 12-month period from startup and shutdown events and normal operations. CO emissions shall not exceed 14.69 tons per rolling, 12-month period from startup and shutdown events and normal operations. SO₂ emissions shall not exceed 1.00 ton per month as a rolling, 12-month average. See b)(2)b. through b)(2)d. below.
e.	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 , and PM _{2.5} emissions from this air contaminant source because the PTE is less than 10 tons per year as vented to the oxidation catalyst system.
f.	OAC rule 3745-110-02(A)(2)(b) and OAC rule 3745-110-03(E)(1)(b)(i)	The permittee shall comply with 40 CFR Part 60, Subpart KKKKa in lieu of OAC Chapter 3745-110 because the emissions limitations and requirements of 40 CFR Part 60, Subpart KKKKa are more stringent than the emissions limitations and requirements of OAC Chapter 3745-110.
g.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(7) through d)(10) below.
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 heat input at peak load greater than 10.7 gigajoules (10 MMBtu) per hour that commenced construction after December 13, 2024. This turbine is categorized as a new installation firing natural gas with a utilization rate over 45%.]	NO_x emissions shall not exceed 15 ppm at 15% O₂ or 24 ng/J of useful output (0.055 lb/MMBtu). SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.
i.	40 CFR Part 60, Subpart TTTTa [40 CFR 60.5508a – 60.5580a]	See b)(2)d. below.



j.	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.
k.	40 CFR Part 63, Subpart YYYY [40 CFR 63.6080 - 40 CFR 63.6175] [The affected source is a new lean premix gas-fired simple cycle stationary combustion turbine located at a major source of HAP emissions.]	Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O ₂ , 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.

(2) Additional Terms and Conditions

- a. The legally and practically enforceable emission limitations for VOC in b)(1)c. are established for the purpose of representing potential to emit (PTE) and are based on the operational restrictions contained in c)(1). The legally and practically enforceable emission limitations in b)(1)c. are voluntary restrictions.
- b. The Best Available Technology (BAT) requirements under ORC rule 3704.03(T) have been determined to be compliance with the rolling 12-month NO_x, CO, and SO₂ emission limitations established under OAC rule 3745-31-05(A)(3) and the operational restrictions in c)(1).
- c. "Startup" is defined as beginning with turbine fuel ignition and ends when the SCR catalyst bed temperature reaches the minimum temperature necessary for the SCR to control NO_x emissions.
- d. "Shutdown" is defined as the process of taking the turbine off-line and begins when the SCR catalyst bed temperature falls below the minimum temperatures necessary for the SCR to control NO_x emissions.
- e. This facility will not sell electricity to a utility power distribution system and these emissions units are therefore not subject to 40 CFR Part 60, Subpart TTTTa. If this facility begins selling electricity to a utility power distribution system at any point, then these emissions units will be subject to the provisions of this subpart. The permittee shall apply for and obtain a permit modification prior to selling electricity to a utility power distribution system.

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing BAT and legally and practically enforceable requirements which represent PTE [See b)(2)a. and b)(2)b.]:



- a. The permittee shall burn only natural gas in this emissions unit.
 - b. The NO_x, CO, and VOC emissions from this emissions unit shall be vented to an oxidation catalyst and SCR system at all times when the emissions unit is in operation except during startup and shutdown.
 - c. 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.
 - d. Startup and shutdown events shall each be limited to 40 events per rolling, 12-month period.
- (2) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).
- (3) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (2) The permittee shall install, operate, and maintain the oxidation catalyst and SCR system, including the ammonia injection system, 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.
 - (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual for the oxidation catalyst and SCR system, 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.
 - (4) The permittee shall maintain the following information for maintenance and repairs performed on the oxidation catalyst and SCR system:
 - 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.
 - (5) The permittee shall properly install, operate, and maintain equipment that continuously monitors the following information for the oxidation catalyst and SCR system at all times when the associated engine is in operation and records of hourly average data for:
 - a. the pressure drop across the control system;
 - b. the NO_x concentration at the SCR catalyst bed exhaust; and
 - c. the temperature of the SCR catalyst bed.

Each monitoring device shall be equipped with a mechanism to detect parameters that exceed recommended thresholds as established per d)(2) and trigger an alarm to operators when the control system is not operating within the recommended conditions.
 - (6) The permittee shall maintain monthly records of the following information:



- a. the hours of operation, excluding startup and shutdown;
- b. the number of startup events;
- c. the number of shutdown events;
- d. the NO_x emissions, in pounds or tons;
- e. the CO emissions, in pounds or tons;
- f. the VOC emissions, in pounds or tons;
- g. the SO₂ emissions, in pounds or tons;
- h. the rolling, 12-month summation of the number of startup events;
- i. the rolling, 12-month summation of the number of shutdown events;
- j. the rolling, 12-month NO_x emissions, in tons;
- k. the rolling, 12-month CO emissions, in tons; and
- l. the rolling, 12-month VOC emissions, in tons; and
- m. the monthly SO₂ emissions as a 12-month, rolling average, in tons.

Emissions from startup and shutdown events shall be calculated using the emissions data provided by the turbine manufacturer and identified in b)(1)c. above. Emissions during all other periods of operation shall be calculated by multiplying the hours of operation, excluding startup and shutdown, by the maximum hourly emissions rate provided by the turbine manufacturer and identified in b)(1)c. above or the results of most recent testing as conducted per f)(1).

- (7) The PTI application for emissions units P001 through P030 and B001 through B022 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



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- 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/m³): 17.41

Maximum Hourly Emission Rate (lb/hr): 0.21 lb/hr (per EU) from P003 – P008, 3.00 lbs/hr (per EU) from P009 – P014 and P026 – P029, 4.87 lbs/hr (per EU) from P015 – P017, 2.48 lbs/hr (per EU) from P018 – P023, and 8.65 lbs/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration (µg/m³): 30.43

MAGLC (µg/m³): 414.60

- ii. Toxic Contaminant: formaldehyde

TLV (mg/m³): 0.123

Maximum Hourly Emission Rate (lb/hr): 0.84 lb/hr (per EU) from P003 – P008, 0.27 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.28 lb/hr (per EU) from P015 – P017, 0.30 lb/hr (per EU) from P018 – P023, and 0.39 lb/hr (per EU) from P024 – P025. The emissions from P001 – P002, P030, and B001 – B022 combined are less than 2.8 x 10⁻³ lb/hr.

Predicted Annual and One-Hour Maximum Ground-Level Concentration (µg/m³): 0.129 (annual) and 12.22 (1-hour)

Alternative acceptable concentration (µg/m³): 0.8 (annual) and 49 (1-hour max)

- iii. Toxic Contaminant: acetaldehyde

TLV (mg/m³): 33.20

Maximum Hourly Emission Rate (lb/hr): 0.111 lb/hr (per EU) from P003 – P008, 0.004 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.007 lb/hr (per EU) from P015 – P017, 0.004 lb/hr (per EU) from P018 – P023, and 0.014 lb/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration (µg/m³): 1.59

MAGLC (µg/m³): 790.36

The permittee has demonstrated that emissions of ammonia, formaldehyde, and acetaldehyde from emissions units P001 through P030 and B001 through B022 are calculated to be less than 80 percent of the MAGLC for ammonia and acetaldehyde and less than 80 percent of the alternative acceptable concentrations for formaldehyde; 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).

- (8) 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.

- (9) 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.
- (10) 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.

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

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

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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

a. All exceedances of the number of startup and shutdown events identified in c)(1)d.; and

b. All exceedances of the rolling, 12-month NO_x, CO, SO₂, and VOC emissions limitations.

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.

(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 included as part of the Title V annual compliance certification.

(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).

f) Testing Requirements

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

b. The emission testing shall be conducted to demonstrate initial compliance with the hourly VOC emissions limitations established under OAC rule 3745-31-05(F) and the

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hourly NO_x and CO emissions limitations established under OAC rule 3745-31-05(A)(3); the NO_x emissions limitation established under 40 CFR 60.4320(a); and the formaldehyde concentration limitation established under 40 CFR 63.6100.

- c. Any subsequent performance tests for NO_x shall be conducted in accordance with 40 CFR 60.4333a and 60.4400a(a).
- d. Subsequent performance tests for formaldehyde concentration shall be conducted annually as specified in Table 3 to 40 CFR Part 63, Subpart YYYY.
- e. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

Emissions Factors	Limits/Emissions	Test Methods and Procedures
The hourly VOC emissions limitation established under OAC rule 3745-31-05(F)		VOC emissions shall be calculated by summing the VOC emissions, as propane, and formaldehyde emissions. The VOC emissions, as propane, shall be determined using Methods 1 through 4 or 19, and 18 or 25A, as applicable, of 40 CFR Part 60, Appendix A. The formaldehyde emissions shall be determined using Methods 1 through 4 or 19 of 40 CFR Part 60, Appendix A, and Method 320 or 323 of 40 CFR Part 63, Appendix A or ASTM D6348-12e1, provided that the test plan preparation and implementation provisions of Annexes A1-A8 are followed and the percent R must be greater than or equal to 70 and less than or equal to 130.
The hourly NO _x emissions limitation established under OAC rule 3745-31-05(A)(3) and the NO _x emissions limitation pursuant to 40 CFR Part 60, Subpart KKKKa		The methods and procedures specified in 40 CFR 60.4400a.
The hourly CO emissions limitations established under OAC rule 3745-31-05(A)(3)		Methods 1 through 4 or 19, and 10 of 40 CFR Part 60, Appendix A
The formaldehyde concentration limitation established pursuant to 40 CFR Part 63, Subpart YYYY		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.

- f. During the emissions testing, the EU 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 EU 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.

- g. Not later than 60 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 EU 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).
- h. 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 EU and the testing procedures provide a valid characterization of the emissions from the EU and/or the performance of the control equipment.
- i. 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 60 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.

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

a. Emissions Limitation

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

Applicable Compliance Method

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR Part 60, Appendix A.

b. Emissions Limitation

Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.

Applicable Compliance Method

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).



c. Emissions Limitations

NO_x emissions shall not exceed 2.33 pounds per hour, excluding periods of startup and shutdown.

CO emissions shall not exceed 2.83 pounds per hour, excluding periods of startup and shutdown.

VOC emissions shall not exceed 1.58 pounds per hour, excluding periods of startup and shutdown.

Applicable Compliance Method

Compliance with these emissions limitations shall be demonstrated through emissions testing performed in accordance with f)(1) above.

d. Emissions Limitations

NO_x emissions shall not exceed 10.32 tons per rolling, 12-month period from startup and shutdown events and normal operations.

CO emissions shall not exceed 14.69 tons per rolling, 12-month period from startup and shutdown events and normal operations.

VOC emissions shall not exceed 7.37 tons per rolling, 12-month period from startup and shutdown events and normal operations.

SO₂ emissions shall not exceed 1.00 tons per month based upon a 12-month, rolling average.

Applicable Compliance Method

Compliance with these emissions limitations shall be determined in accordance with the monitoring and/or recordkeeping specified in d) above.

e. Emissions Limitations

NO_x emissions shall not exceed 4.00 pounds per startup or shutdown event.

CO emissions shall not exceed 64.00 pounds per startup event.

CO emissions shall not exceed 52.00 pounds per shutdown event.

VOC emissions shall not exceed 12.00 pounds per startup or shutdown event.

Applicable Compliance Method

These emissions limitations were established based on the manufacturer's information provided by the permittee. If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 or 19, and 7E for NO_x, 10 for CO, 18 or 25A for VOC (excluding formaldehyde), and 40 CFR Part 63, Appendix A, Method 320 or 323 or ASTM D6348-12e1 for formaldehyde.

f. Emissions Limitation

NO_x emissions shall not exceed 15 ppm at 15% O₂ or 24 ng/J of useful output (0.055 lb/MMbtu).

Applicable Compliance Method



Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) above and the requirements specified in 40 CFR 60.4400a.

g. Emissions Limitation

SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.

Applicable Compliance Method

The permittee shall perform an initial performance test, as required in 40 CFR 60.8, and annual performance tests (no more than 12 calendar months following the previous performance test). The permittee shall use one of the four methodologies specified in 40 CFR 60.4333a(d) to demonstrate compliance.

h. Emissions Limitation

Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O₂, except during turbine startup.

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) 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 YYYYY.

g) Miscellaneous Requirements

(1) None.

5. Emissions Unit Group - Solar Titan T-130 Turbines: P009, P010, P011, P012, P013, P014, P026, P027, P028, P029

EU ID	Operations, Property and/or Equipment Description
P009	Solar Titan 130 Generator Turbine #1
P010	Solar Titan 130 Generator Turbine #2
P011	Solar Titan 130 Generator Turbine #3
P012	Solar Titan 130 Generator Turbine #4
P013	Solar Titan 130 Generator Turbine #5
P014	Solar Titan 130 Generator Turbine #6
P026	Solar Titan 130 Generator Turbine #7
P027	Solar Titan 130 Generator Turbine #8
P028	Solar Titan 130 Generator Turbine #9
P029	Solar Titan 130 Generator Turbine #10

- 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) b)(1)f., d)(7) through d)(10), and e)(3)

- b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(4)	Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.
c.	OAC rule 3745-31-05(F)	NO _x emissions shall not exceed 1.24 pounds per hour, excluding periods of startup and shutdown.



		CO emissions shall not exceed 1.32 pounds per hour, excluding periods of startup and shutdown. VOC emissions shall not exceed 0.94 pounds per hour, excluding periods of startup and shutdown. NO_x emissions shall not exceed 4.00 pounds per startup or shutdown event. CO emissions shall not exceed 64.00 pounds per startup event. CO emissions shall not exceed 52.00 pounds per shutdown event. VOC emissions shall not exceed 12.00 pounds per startup or shutdown event. NO_x emissions shall not exceed 5.58 tons per rolling, 12-month period from startup and shutdown events and normal operations. CO emissions shall not exceed 8.10 tons per rolling, 12-month period from startup and shutdown events and normal operations. VOC emissions shall not exceed 4.57 tons per rolling, 12-month period from startup and shutdown events and normal operations. See b)(2)a. through b)(2)c. below.
d.	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, SO ₂ , PM ₁₀ , and PM _{2.5} emissions from this air contaminant source because the PTE is less than 10 tons per year as vented to the oxidation catalyst and SCR system.
e.	OAC rule 3745-110-02(A)(2)(b) and OAC rule 3745-110-03(E)(1)(b)(i)	The permittee shall comply with 40 CFR Part 60, Subpart KKKKa in lieu of OAC Chapter 3745-110 because the emissions limitations and requirements of 40 CFR Part 60, Subpart KKKKa are more stringent than the emissions limitations and requirements of OAC Chapter 3745-110.
f.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(7) through d)(10) below.
g.	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	NO _x emissions shall not exceed 15 ppm at 15% O ₂ or 24 ng/J of useful output (0.055 lb/MMBtu).



	stationary combustion turbine with a heat input at peak load greater than 10.7 gigajoules (10 MMBtu) per hour that commenced construction after December 13, 2024. This turbine is categorized as a new installation firing natural gas with a utilization rate over 45%.]	SO ₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO ₂ /MMBtu heat input.
h.	40 CFR Part 60, Subpart TTTTa [40 CFR 60.5508a – 60.5580a]	See b)(2)d. 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 63, Subpart YYYY [40 CFR 63.6080 - 40 CFR 63.6175] [The affected source is a new lean premix gas-fired simple cycle stationary combustion turbine located at a major source of HAP emissions.]	Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O ₂ , 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.
k.	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.

(2) Additional Terms and Conditions

- a. The legally and practically enforceable emission limitations in b)(1)c. are established for the purpose of representing potential to emit (PTE) and are based on the operational restrictions contained in c)(1). The legally and practically enforceable emission limitations in b)(1)c. are voluntary restrictions.
- b. "Startup" is defined as beginning with turbine fuel ignition and ends when the SCR catalyst bed temperature reaches the minimum temperature necessary for the SCR to control NO_x emissions.
- c. "Shutdown" is defined as the process of taking the turbine off-line and begins when the SCR catalyst bed temperature falls below the minimum temperatures necessary for the SCR to control NO_x emissions.
- d. This facility will not sell electricity to a utility power distribution system and these emissions units are therefore not subject to 40 CFR Part 60, Subpart TTTTa. If this facility begins selling electricity to a utility power distribution system at any point, then these emissions units will be subject to the provisions of this subpart. The permittee shall apply for and obtain a permit modification prior to selling electricity to a utility power distribution system.

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically enforceable requirements which represent PTE [See b)(2)a.]:
 - a. The permittee shall burn only natural gas in this emissions unit.
 - b. The NO_x, CO, and VOC emissions from this emissions unit shall be vented to an oxidation catalyst and SCR system at all times when the emissions unit is in operation except during startup and shutdown.
 - c. 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.
 - d. Startup and shutdown events shall each be limited to 40 events per rolling, 12-month period.
- (2) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).
- (3) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall install, operate, and maintain the oxidation catalyst and SCR system, including the ammonia injection system, 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.
- (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual for the oxidation catalyst and SCR system, 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.
- (4) The permittee shall maintain the following information for maintenance and repairs performed on the oxidation catalyst and SCR system:
 - 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.
- (5) The permittee shall properly install, operate, and maintain equipment that continuously monitors the following information for the oxidation catalyst and SCR system at all times when the associated engine is in operation and records of hourly average data for:
 - a. the pressure drop across the control system;
 - b. the NO_x concentration at the SCR catalyst bed exhaust; and
 - c. the temperature of the SCR catalyst bed.



Each monitoring device shall be equipped with a mechanism to detect parameters that exceed recommended thresholds as established per d)(2) and trigger an alarm to operators when the control system is not operating within the recommended conditions.

- (6) The permittee shall maintain monthly records of the following information:
- a. the hours of operation, excluding startup and shutdown;
 - b. the number of startup events;
 - c. the number of shutdown events;
 - d. the NO_x emissions, in pounds or tons;
 - e. the CO emissions, in pounds or tons;
 - f. the VOC emissions, in pounds or tons;
 - g. the rolling, 12-month summation of the number of startup events;
 - h. the rolling, 12-month summation of the number of shutdown events;
 - i. the rolling, 12-month NO_x emissions, in tons;
 - j. the rolling, 12-month CO emissions, in tons; and
 - k. the rolling, 12-month VOC emissions, in tons.

Emissions from startup and shutdown events shall be calculated using the emissions data provided by the turbine manufacturer and identified in b)(1)c. above. Emissions during all other periods of operation shall be calculated by multiplying the hours of operation, excluding startup and shutdown, by the maximum hourly emissions rate provided by the turbine manufacturer and identified in b)(1)c. above or the results of most recent testing as conducted per f)(1).

- (7) The PTI application for emissions units P001 through P030 and B001 through B022 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): 17.41

Maximum Hourly Emission Rate (lb/hr): 0.21 lb/hr (per EU) from P003 – P008, 3.00 lbs/hr (per EU) from P009 – P014 and P026 – P029, 4.87 lbs/hr (per EU) from P015 – P017, 2.48 lbs/hr (per EU) from P018 – P023, and 8.65 lbs/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$): 30.43

MAGLC ($\mu\text{g}/\text{m}^3$): 414.60

ii. Toxic Contaminant: formaldehyde

TLV (mg/m^3): 0.123

Maximum Hourly Emission Rate (lb/hr): 0.84 lb/hr (per EU) from P003 – P008, 0.27 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.28 lb/hr (per EU) from P015 – P017, 0.30 lb/hr (per EU) from P018 – P023, and 0.39 lb/hr (per EU) from P024 – P025. The emissions from P001 – P002, P030, and B001 – B022 combined are less than 2.8×10^{-3} lb/hr .

Predicted Annual and One-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$): 0.129 (annual) and 12.22 (1-hour)

Alternative acceptable concentration ($\mu\text{g}/\text{m}^3$): 0.8 (annual) and 49 (1-hour max)

iii. Toxic Contaminant: acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lb/hr): 0.111 lb/hr (per EU) from P003 – P008, 0.004 lb/hr (per EU) from P009 – P014 and P026 – P029, 0.007 lb/hr (per EU) from P015 – P017, 0.004 lb/hr (per EU) from P018 – P023, and 0.014 lb/hr (per EU) from P024 – P025.

Predicted One-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$): 1.59

MAGLC ($\mu\text{g}/\text{m}^3$): 790.36

The permittee has demonstrated that emissions of ammonia, formaldehyde, and acetaldehyde from emissions units P001 through P030 and B001 through B022 are calculated to be less than 80 percent of the MAGLC for ammonia and acetaldehyde and less than 80 percent of the alternative acceptable concentrations for formaldehyde; 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).

- (8) 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.

- (9) 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.
- (10) 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.
- (11) See 40 CFR Part 60, Subpart KKKKa (40 CFR 60.4300a – 60.4420a).
- (12) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).
- e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. All exceedances of the number of startup and shutdown events identified in c)(1)d.; and
 - b. All exceedances of the rolling, 12-month NO_x, CO, and VOC emissions limitations.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.
- (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 included as part of the Title V annual compliance certification.
- (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).

f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, emission testing for this EU 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 EU will be operated, but not later than 180 days after initial startup of the EU.
 - b. The emission testing shall be conducted to demonstrate initial compliance with the hourly NO_x, CO, and VOC emissions limitations established under OAC rule 3745-31-05(F); the NO_x emissions limitation established under 40 CFR 60.4320(a); and the formaldehyde concentration limitation established under 40 CFR 63.6100.
 - c. Any subsequent performance tests for NO_x shall be conducted in accordance with 40 CFR 60.4333a and 60.4400a(a).
 - d. Subsequent performance tests for formaldehyde concentration shall be conducted annually as specified in Table 3 to 40 CFR Part 63, Subpart YYYYY.
 - e. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

Emissions Factors	Limits/Emissions	Test Methods and Procedures
The hourly VOC emissions limitation established under OAC rule 3745-31-05(F)		VOC emissions shall be calculated by summing the VOC emissions, as propane, and formaldehyde emissions. The VOC emissions, as propane, shall be determined using Methods 1 through 4 or 19, and 18 or 25A, as applicable, of 40 CFR Part 60, Appendix A. The formaldehyde emissions shall be determined using Methods 1 through 4 or 19 of 40 CFR Part 60, Appendix A, and Method 320 or 323 of 40 CFR Part 63, Appendix A or ASTM D6348-12e1, provided that the test plan preparation and implementation provisions of Annexes A1-A8 are followed and the percent R must be greater than or equal to 70 and less than or equal to 130.
The hourly NO _x emissions limitation established under OAC rule 3745-31-05(F) and the NO _x emissions limitation established pursuant to 40 CFR Part 60, Subpart KKKKa		The methods and procedures specified in 40 CFR 60.4400a.
The hourly CO emissions limitations established under OAC rule 3745-31-05(F)		Methods 1 through 4 or 19, and 10 of 40 CFR Part 60, Appendix A



The formaldehyde concentration limitation established pursuant to 40 CFR Part 63, Subpart YYYY	The methods and procedures specified in 40 CFR 63.6120 and Tables 3 and 4 to 40 CFR Part 63, Subpart YYYY
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Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- f. During the emissions testing, the EU 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 EU 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.
- g. Not later than 60 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 EU 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).
- h. 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 EU and the testing procedures provide a valid characterization of the emissions from the EU and/or the performance of the control equipment.
- i. 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 60 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.



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

a. Emissions Limitation

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

Applicable Compliance Method

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR Part 60, Appendix A.

b. Emissions Limitation

Particulate emissions shall not exceed 0.040 pounds per million Btu of actual heat input.

Applicable Compliance Method

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).

c. Emissions Limitations

NO_x emissions shall not exceed 1.24 pounds per hour, excluding periods of startup and shutdown.

CO emissions shall not exceed 1.32 pounds per hour, excluding periods of startup and shutdown.

VOC emissions shall not exceed 0.94 pounds per hour, excluding periods of startup and shutdown.

Applicable Compliance Method

Compliance with these emissions limitations shall be demonstrated through emissions testing performed in accordance with f)(1) above.

d. Emissions Limitations

NO_x emissions shall not exceed 5.58 tons per rolling, 12-month period from startup and shutdown events and normal operations.

CO emissions shall not exceed 8.10 tons per rolling, 12-month period from startup and shutdown events and normal operations.

VOC emissions shall not exceed 4.57 tons per rolling, 12-month period from startup and shutdown events and normal operations.

Applicable Compliance Method

Compliance with these emissions limitations shall be determined in accordance with the monitoring and/or recordkeeping specified in d) above.



e. Emissions Limitations

NO_x emissions shall not exceed 4.00 pounds per startup or shutdown event.

CO emissions shall not exceed 64.00 pounds per startup event.

CO emissions shall not exceed 52.00 pounds per shutdown event.

VOC emissions shall not exceed 12.00 pounds per startup or shutdown event.

Applicable Compliance Method

These emissions limitations were established based on the manufacturer's information provided by the permittee. If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 or 19, and 7E for NO_x, 10 for CO, 18 or 25A for VOC (excluding formaldehyde), and 40 CFR Part 63, Appendix A, Method 320 or 323 or ASTM D6348-12e1 for formaldehyde.

f. Emissions Limitation

NO_x emissions shall not exceed 15 ppm at 15% O₂ or 24 ng/J of useful output (0.055 lb/MMBtu).

Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) above and the requirements specified in 40 CFR 60.4400a.

g. Emissions Limitation

SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.

Applicable Compliance Method

The permittee shall perform an initial performance test, as required in 40 CFR 60.8, and annual performance tests (no more than 12 calendar months following the previous performance test). The permittee shall use one of the four methodologies specified in 40 CFR 60.4333a(d) to demonstrate compliance.

h. Emissions Limitation

Formaldehyde emissions shall not exceed 91 ppbvd at 15 percent O₂, except during turbine startup.



Applicable Compliance Method

Compliance shall be demonstrated through emissions testing performed in accordance with f)(1) 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.