



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

3/23/2011

Certified Mail

Caitlin Schiebel
AMP Gas Turbines - Bowling Green
1111 Shrock Rd, Suite 100
Columbus, OH 43229

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0387020378
Permit Number: P0106045
Permit Type: Administrative Modification
County: Wood

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

Dear Permit Holder:

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

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

and Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
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 in the newspaper. 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,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

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

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install
AMP Gas Turbines - Bowling Green

Issue Date: 3/23/2011
Permit Number: P0106045
Permit Type: Administrative Modification
Permit Description: Administrative Modification to change from a Hourly Restriction to a Fuel Use Restriction
Facility ID: 0387020378
Facility Location: AMP Gas Turbines - Bowling Green
1225 College Drive,
Bowling Green, OH 43402
Facility Description: Fossil Fuel Electric Power Generation

Scott J. Nally, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control permit-to-install (PTI) for an air contaminant source at the location identified above on the date indicated. Installation of the air contaminant source may proceed upon final issuance of the PTI. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Andrea Moore at Ohio EPA DAPC, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402 or (419)352-8461. The permit can be downloaded from the Web page: www.epa.ohio.gov/dapc



DRAFT

**Division of Air Pollution Control
Permit-to-Install
for
AMP Gas Turbines - Bowling Green**

Facility ID: 0387020378
Permit Number: P0106045
Permit Type: Administrative Modification
Issued: 3/23/2011
Effective: To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
AMP Gas Turbines - Bowling Green

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Authorization

Facility ID: 0387020378
Facility Description: Electric Generating Station
Application Number(s): M0000663
Permit Number: P0106045
Permit Description: Administrative Modification to change from a Hourly Restriction to a Fuel Use Restriction
Permit Type: Administrative Modification
Permit Fee: \$225.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 3/23/2011
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

AMP Gas Turbines - Bowling Green
1225 College Drive
Bowling Green, OH 43402

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants 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

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0106045
Permit Description: Administrative Modification to change from a Hourly Restriction to a Fuel Use Restriction

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

Emissions Unit ID:	P001
Company Equipment ID:	CT-2
Superseded Permit Number:	03-13377
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	CT-1
Superseded Permit Number:	03-13377
General Permit Category and Type:	Not Applicable



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) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) 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
 - (9) Standard Term and Condition A.16., Fees
 - (10) 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) The permittee must comply with all terms and conditions of this permit. 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 (i.e., postmarked) 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 (i.e., postmarked) 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 semi-annual 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) 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.
- c) 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.
- d) 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 (i.e., postmarked) 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).

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 by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party 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 Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying 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 shutdown 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.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- 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 other any 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 (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

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. P001, CT-2

Operations, Property and/or Equipment Description:

GE Frame 5LA 16.5 MW NG fired turbine W/SCR

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) d)(7), d)(8), and d)(9).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Nitrogen oxides (NOx) emissions shall not exceed 14 ppmvd at 15% oxygen. 0.0516 lb NOx/mmBtu of actual heat input 0.112 lb carbon monoxide (CO)/mmBtu of actual heat input 3.56 lb particulate emissions (PE)/hr & 4.0 tons PE/yr 1.45 lbs sulfur dioxide (SO2)/hr & 1.6 tons SO2/yr 2.29 lbs volatile organic compounds (VOC)/hr & 2.6 tons VOC/yr 0.18 lb formaldehyde/hr & 0.2 ton formaldehyde/yr startup and shutdown emissions: 2.5 tons NOx/yr and 1.0 ton CO/yr Visible PE from any stack shall not exceed 10 percent opacity, as a six-minute average. See b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D)	14.8 tons NOx per rolling, 12-month period 32.0 tons CO per rolling, 12-month period See c)(1) and b)(2)c.
c.	OAC rule 3745-17-11(B)(4)	See b)(2)a.
d.	OAC rule 3745-17-07(A)	See b)(2)a.
e.	OAC rule 3745-18-06(F)	See b)(2)a.
f.	40 CFR 60, Subpart GG	See b)(2)b.

(2) Additional Terms and Conditions

- a. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- b. The emission limitation and sulfur content restriction specified by this rule are less stringent than the emission limitation and sulfur content restriction established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions of this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- c. The rolling, 12-month emission limitations established in this permit do not include emissions from startups and shutdowns.
- d. The 3.56 lbs PE/hr, 1.45 lbs SO₂/hr, 2.29 lbs VOC/hr and 0.18 lb formaldehyde/hr emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping or reporting requirements to ensure compliance with these emission limitations.

c) Operational Restrictions

- (1) The maximum annual natural gas usage for this emissions unit shall not exceed 571,986,000 cubic feet per rolling, 12-month period*, based upon a monthly summation of the monthly quantity of natural gas used.

*This emissions unit has been in operation for greater than 12 months, and therefore has the necessary records to demonstrate compliance with this restriction upon issuance of this permit.

- (2) The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 gr/100 cf.
- (3) As specified in the permittee's PTI application, the maximum heat input rating for this emissions unit is 254.2 mmBtu/hr. This value corresponds to a maximum natural gas flow rate of 254,216 cf/hr with a heat content of 1000 Btu/cf. The permittee shall operate this emissions unit within the parameters specified above, except for startup and

shutdown periods. Startup periods shall be defined as the first 60 minutes in duration. Shutdown periods shall not exceed 30 minutes in duration.

- (4) With the exception of startup and shutdown periods, this emissions unit shall be operated at 100% load. For environmental compliance purposes, 100% load is achieved when the control system receives confirmation from the plant's information management system that the conditions for 100% load are met. The permittee may petition the Ohio EPA to operate at a greater load range if it can demonstrate to the agency's satisfaction that the emissions unit will comply with all applicable emission limits in this permit.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the quantity of natural gas used, in cubic feet;
 - b. the rolling, 12-month quantity of natural gas used, in cubic feet;
 - c. the NO_x and CO emission rates*, in pounds;
 - d. the rolling, 12-month NO_x and CO emissions rates*, in tons;
 - e. the number of hours of operation for startup and shutdown periods;
 - f. the NO_x and CO emission rates* for the startup and shutdown periods, in tons; and
 - g. the annual, year-to-date NO_x and CO emission rates*, in tons, associated with the startup and shutdown periods (summation of f for each pollutant).

* The permittee shall use continuous monitoring data for calculating the NO_x emissions. The permittee may use the default emission factors of 13.0 lbs CO/hr (for startups/shutdowns) and 0.112 lb CO/mmBtu of actual heat input (for all other operating periods) for calculating CO emissions, if no CO testing data is available for this emissions unit.
 - (2) 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.
 - (3) The permittee shall determine compliance with the sulfur content standard as follows: ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels. The permittee shall determine the heat content of the fuels using ASTM method D240. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Ohio EPA, Central Office. The newest or most recent revisions to the applicable test method shall be used for these analyses. Alternative, equivalent methods may be used if they comply with the requirements specified in 40 CFR, Part 60.13, or upon written approval by the Ohio EPA, Central Office. The frequency of the sampling shall be such that it complies with the requirements specified in 40 CFR, Part 60.334. A

custom fuel monitoring schedule may be used if approved by the Ohio EPA, Northwest District Office.

- (4) This emissions unit shall have a control system that at a minimum shall be capable of monitoring load conditions, ammonia injection rate, and fuel flow.
- (5) The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in the units specified in this permit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60 and Part 75, if applicable. The permittee shall maintain records of data obtained by the continuous NO_x monitoring system including, but not limited to:
 - a. emissions of NO_x, in parts per million, on an instantaneous (one-minute) basis;
 - b. emissions of NO_x, in pounds per million Btu, as an hourly average;
 - c. results of quarterly cylinder gas audits or linearity checks;
 - d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - e. results of required relative accuracy test audit(s), including results in the units specified in this permit;
 - f. hours of operation of the emissions unit, continuous NO_x monitoring system, and control equipment;
 - g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system;
 - h. the date, time, hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system; as well as,
 - i. the reason (if known) and the corrective actions taken (if any) for each such event in d)(5)(g) and d)(5)(h).
- (6) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_x monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2; and has been certified by U.S. EPA or recommended for certification by Ohio EPA to U.S. EPA under 40 CFR Part 75. The letter(s)/document(s) of certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the OEPA Northwest District Office upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

- (7) The permit to install for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):
- a. Pollutant: Formaldehyde
 - TLV (ug/m3): 273 (Converted from the STEL)
 - Maximum Hourly Emission Rate (lbs/hr): 0.52*
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.38
 - MAGLC (ug/m3): 6.49
 - b. Pollutant: Sulfuric Acid
 - TLV (ug/m3): 1000
 - Maximum Hourly Emission Rate (lbs/hr): 1.43*
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.81
 - MAGLC (ug/m3): 23.8
 - c. Pollutant: Ammonia
 - TLV (ug/m3): 17000
 - Maximum Hourly Emission Rate (lbs/hr): 11.2*
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.7
 - MAGLC (ug/m3): 404.8
- * This was modeled for emissions units P001 & P002 combined.
- (8) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
- (9) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- 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 exceedances of the following:
 - a. 571,986,000 cubic feet of natural gas per rolling, 12-month period;
 - b. 14.8 tons of NO_x per rolling, 12-month period; and
 - c. 32.0 tons of CO per rolling, 12-month period.

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 gr/100 cu. ft.
- (4) The permittee shall submit deviation (excursion) reports that identify all periods of time when this emissions unit was not in compliance with the requirements established in conditions c)(3) and c)(4) of this permit.
- (5) The permittee shall submit quarterly reports that document the date, time, and duration of each malfunction and/or period of downtime of the control system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event.
- (6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, 40 CFR Parts 75 and 76, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous NO_x and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total NO_x emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous NO_x monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits or linearity checks;

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- ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(6)(b)(xi) and e)(6)(b)(xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter. Data substitution procedures from 40 CFR 75 are not to be used for showing compliance with the short term OAC 3745-31-05(A)(3) rule-based limitation in this permit.

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

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

- (7) The permittee shall collect, record, and maintain measurements, data, records, and reports required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required by this Part.
 - (8) The permittee shall submit annual reports that summarize the following: (a) the actual annual number of hours for startups and shutdowns, and (b) the actual annual NO_x and CO emissions (during startups and shutdowns) for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
 - (9) Unless otherwise specified, these reports shall be submitted in accordance with the Standard Terms and Conditions.
- f) Testing Requirements
- (1) Ongoing compliance with the NO_x emission limitations contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality

control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

- (2) Compliance with the emission limitations in Section b)(1) of the terms and conditions of this permit shall be determined according to the following methods:

a. Emission Limitations:

NOx emissions shall not exceed 14 ppmvd at 15% Oxygen, 0.0516 lb NOx/mmBtu of actual heat input, and 14.8 tons NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance with the NOx outlet concentration and lb/mmBtu emission limitation has been demonstrated based on the results of emissions testing conducted on this or a similar emissions unit in accordance with approved US EPA Test Methods, and with the monitoring and record keeping requirements established in section d(5) of this permit.

If required, the permittee shall further demonstrate compliance with the NOx outlet concentration and lbs/mmBtu emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 7.

Compliance with the rolling, 12-month NOx emission limitation shall based on the monitoring and record keeping requirements established in condition d)(1) of this permit.

b. Emission Limitations:

0.1120 lb CO/mmBtu of actual heat input, and 32.0 tons CO per rolling, 12-month period

Applicable Compliance Method:

Compliance with the CO lb/mmBtu emission limitation has been demonstrated based on the results of emissions testing conducted on this or a similar emissions unit in accordance with approved US EPA Test Methods.

If required, the permittee shall demonstrate compliance with the lbs CO/mmBtu limitation above through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4, and 10.

Compliance with the rolling, 12-month CO emission limitation shall be determined based on the record keeping established in condition d)(1) of this permit.

c. Emission Limitations:

3.56 lbs PE/hr and 4.0 tons PE/yr

Applicable Compliance Method:

The hourly PE limitation was established by multiplying the maximum heat input rate of 254.2 mmBtu/hr by the vendor-supplied emission factor of 0.0140 lb PE/mmBtu.

The annual emission limitation was established by multiplying the vendor-supplied emission factor of 0.0140 lb PE/mmBtu, by the maximum annual natural gas usage of 571,986,000 cf, multiplied by the heat content of 1000 Btu/cf, and then dividing by 2000 lbs/ton. Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly and lbs PE/mmBtu limitations above through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-5.

d. Emission Limitations:

1.45 lbs SO₂/hr and 1.6 tons SO₂/yr

Applicable Compliance Method:

The hourly SO₂ emission limitation was established by multiplying the maximum sulfur content (2 gr/100 cf) by the maximum hourly natural gas flow rate (254,216 cf/hr), then divide by 7000 gr/lb, and multiplying by 2*.

The annual SO₂ emission limitation was established by multiplying the maximum sulfur content (2 gr/100 cf) by the maximum by the maximum annual natural gas usage of 571,986,000 cf, then dividing by 7000 gr/lb and 2000 lbs/ton, and multiplying by 2*. Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly SO₂ emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

* S to SO₂ conversion factor

e. Emission Limitations:

2.29 lbs VOC/hr and 2.6 tons VOC/yr

Applicable Compliance Method:

The hourly allowable VOC emission limitation was established by multiplying the maximum heat input rate of 254.2 mmBtu/hr by the vendor-supplied emission factor of 0.0090 lb VOC/mmBtu.

The annual emission limitation was established by multiplying the vendor-supplied emission factor of 0.0090 lb VOC/mmBtu by the maximum annual

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natural gas usage of 571, 986,000 cf, multiplied by the heat content of 1000 Btu/cf, and then dividing by 2000 lbs/ton. Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

f. Emission Limitations:

0.18 lb/hr formaldehyde and 0.2 ton formaldehyde/yr

Applicable Compliance Method:

The hourly allowable formaldehyde emission limitation was established by multiplying the maximum heat input rate of 254.2 mmBtu/hr by the emission factor of 0.00071 lb formaldehyde/mmBtu (from AP-42, Table 3.1-3, revised 4/00) by.

The annual emission limitation was established by multiplying the vendor-supplied emission factor of 0.00071 lb formaldehyde/mmBtu, by the maximum annual natural gas usage of 571,986,000 cf, multiplied by the a heat content of 1000 Btu/cf, and then dividing by 2000 lbs/ton. Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable formaldehyde emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 320.

g. Emission Limitations:

Startup and shutdown emissions - 2.5 tons NOx/yr and 1.0 ton CO/yr

Applicable Compliance Method:

Compliance with the annual allowable NOx and CO emission limitations shall be determined based on the record keeping requirements established in condition d)(1) of this permit.

h. Emission Limitation:

Visible PE from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method:

Compliance with the visible PE limitation shall be determined by Method 9, 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

- (1) Should this emissions unit be converted from a simple cycle to a combined cycle turbine in the future, a new BAT determination shall be required.
- (2) The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_x monitoring system, designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

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

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

- (3) In accordance with good engineering practices, the SCR unit serving emissions unit P001 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.



2. P002, CT-1

Operations, Property and/or Equipment Description:

Mitsubishi 301 33 MW NG fired turbine W/SCR

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) d)(7), d)(8), and d)(9).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Nitrogen oxides (NOx) emissions shall not exceed 14 ppmvd at 15% oxygen.</p> <p>0.0516 lbs NOx/mmBtu of actual heat input</p> <p>0.112 lb carbon monoxide (CO)/mmBtu of actual heat input</p> <p>6.61 lbs particulate emissions (PE)/hr & 7.4 tons PE/yr</p> <p>2.69 lbs sulfur dioxide (SO2)/hr & 3.0 tons SO2/yr</p> <p>4.25 lbs volatile organic compounds (VOC)/hr & 4.80 tons VOC/yr</p> <p>0.34 lb formaldehyde/hr & 0.3 ton formaldehyde/yr</p> <p>startup and shutdown emissions: 12.6 tons NOx/yr and 4.3 tons CO/yr</p> <p>Visible PE from any stack shall not exceed 10 percent opacity, as a six-minute average.</p> <p>See b)(2)d.</p>



Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Rows include OAC rules 3745-31-05(D), 3745-17-11(B)(4), 3745-17-07(A), 3745-18-06(F) and 40 CFR 60, Subpart GG.

(2) Additional Terms and Conditions

- a. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
b. The emission limitation and sulfur content restriction specified by this rule are less stringent than the emission limitation and sulfur content restriction established pursuant to OAC rule 3745-31-05(A)(3).
c. The rolling 12-month emission limitations established in this permit do not include emissions from startups and shutdowns.
d. The 6.61 lbs PE/hr, 2.69 lbs SO2/hr, 4.28 lbs VOC/hr and 0.34 lb formaldehyde/hr emission limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit.

c) Operational Restrictions

- (1) The maximum annual natural gas usage for this emissions unit shall not exceed 1,062,369,000 cubic feet per rolling, 12-month period*, based upon a monthly summation of the quantity of natural gas used.

*This emissions unit has been in operation for greater than 12 months, and therefore has the necessary records to demonstrate compliance with this restriction upon issuance of this permit.

- (2) The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 gr/100 cu. ft.
(3) As specified in the permittee's PTI application, the maximum heat input rating for this emissions unit is 472.2 mmBtu/hr. This value corresponds to a maximum natural gas flow rate of 472,164 cf/hr with a heat content of 1000 Btu/cf.

shutdown periods. Startup periods shall be defined as the first 60 minutes in duration. Shutdown periods shall not exceed 30 minutes in duration.

- (4) With the exception of startup and shutdown periods, this emissions unit shall be operated at 100% load. For environmental compliance purposes, 100% load is achieved when the control system receives confirmation from the plant's information management system that the conditions for 100% load are met. The permittee may petition the Ohio EPA to operate at a greater load range if it can demonstrate to the agency's satisfaction that the emissions unit will comply with all applicable emission limits in this permit.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the quantity of natural gas used, in cubic feet;
 - b. the rolling, 12-month quantity of natural gas used, in cubic feet;
 - c. the NO_x and CO emission rates*, in pounds;
 - d. the rolling, 12-month NO_x and CO emissions rates*, in tons;
 - e. the number of hours of operation for startup and shutdown periods;
 - f. the NO_x and CO emission rates* for the startup and shutdown periods, in tons; and
 - g. the annual, year-to-date NO_x and CO emission rates*, in tons, associated with the startup and shutdown periods (summation of f for each pollutant).

* The permittee shall use continuous monitoring data for calculating the NO_x emissions. The permittee may use the default emission factors of 13.0 lbs CO/hr (for startups/shutdowns) and 0.112 lb CO/mmBtu of actual heat input (for all other operating periods) for calculating CO emissions, if no CO testing data is available for this emissions unit.
 - (2) 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.
 - (3) The permittee shall determine compliance with the sulfur content standard as follows: ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels. The permittee shall determine the heat content of the fuels using ASTM method D240. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Ohio EPA, Central Office. The newest or most recent revisions to the applicable test method shall be used for these analyses. Alternative, equivalent methods may be used if they comply with the requirements specified in 40 CFR, Part 60.13, or upon written approval by the Ohio EPA, Central Office. The frequency of the sampling shall be such that it complies with the requirements specified in 40 CFR, Part 60.334. A

custom fuel monitoring schedule may be used if approved by the Ohio EPA, Northwest District Office.

- (4) This emissions unit shall have a control system that at a minimum shall be capable of monitoring load conditions, ammonia injection rate, and fuel flow.
- (5) The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in the units specified in this permit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60 and Part 75, if applicable. The permittee shall maintain records of data obtained by the continuous NO_x monitoring system including, but not limited to:
 - a. emissions of NO_x, in parts per million, on an instantaneous (one-minute) basis;
 - b. emissions of NO_x, in pounds per million Btu, as an hourly average;
 - c. results of quarterly cylinder gas audits or linearity checks;
 - d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - e. results of required relative accuracy test audit(s), including results in the units specified in this permit;
 - f. hours of operation of the emissions unit, continuous NO_x monitoring system, and control equipment;
 - g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system;
 - h. the date, time, hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system; as well as,
 - i. the reason (if known) and the corrective actions taken (if any) for each such event in d)(5)(g) and d)(5)(h).
- (6) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_x monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2; and has been certified by U.S. EPA or recommended for certification by Ohio EPA to U.S. EPA under 40 CFR Part 75. The letter(s)/document(s) of certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the OEPA Northwest District Office upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

- (7) The permit to install for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):
- a. Pollutant: Formaldehyde
 - TLV (ug/m3): 273 (Converted from the STEL)
 - Maximum Hourly Emission Rate (lbs/hr): 0.52*
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.38
 - MAGLC (ug/m3): 6.49
 - b. Pollutant: Sulfuric Acid
 - TLV (ug/m3): 1000
 - Maximum Hourly Emission Rate (lbs/hr): 1.43*
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.81
 - MAGLC (ug/m3): 23.8
 - c. Pollutant: Ammonia
 - TLV (ug/m3): 17000
 - Maximum Hourly Emission Rate (lbs/hr): 11.2*
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.7
 - MAGLC (ug/m3): 404.8
- * This was modeled for emissions units P001 & P002 combined.
- (8) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
- (9) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- 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 exceedances of the following:
 - a. 1,062,369,000 cubic feet of natural gas per rolling, 12-month period;
 - b. 27.4 tons of NOx per rolling, 12-month period; and
 - c. 59.5 tons of CO per rolling, 12-month period.

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 gr/100 cu. ft.
- (4) The permittee shall submit deviation (excursion) reports that identify all periods of time when this emissions unit was not in compliance with the requirements established in conditions c)(3) and c)(4) of this permit.
- (5) The permittee shall submit quarterly reports that document the date, time, and duration of each malfunction and/or period of downtime of the control system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event.
- (6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, 40 CFR Parts 75 and 76, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous NO_x and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total NO_x emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous NO_x monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits or linearity checks;

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- ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(6)(b)(xi) and e)(6)(b)(xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter. Data substitution procedures from 40 CFR 75 are not to be used for showing compliance with the short term OAC 3745-31-05(A)(3) rule-based limitation in this permit.

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

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

- (7) The permittee shall collect, record, and maintain measurements, data, records, and reports required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required by this Part.
 - (8) The permittee shall submit annual reports that summarize the following: (a) the actual annual number of hours for startups and shutdowns, and (b) the actual annual NO_x and CO emissions (during startups and shutdowns) for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
 - (9) Unless otherwise specified, these reports shall be submitted in accordance with the Standard Terms and Conditions.
- f) Testing Requirements
- (1) Ongoing compliance with the NO_x emission limitations contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality

control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

- (2) Compliance with the emission limitations in Section b)(1) of the terms and conditions of this permit shall be determined according to the following methods:

a. Emission Limitations:

NOx emissions shall not exceed 14 ppmvd at 15% Oxygen, 0.0516 lbs NOx/mmBtu of actual heat input and 27.4 tons NOx per, rolling 12-month period

Applicable Compliance Method:

Compliance with the NOx outlet concentration and lb/mmBtu emission limitation has been demonstrated based on the results of emissions testing conducted on this or a similar emissions unit in accordance with approved US EPA Test Methods, and with the monitoring and record keeping requirements established in section d(5) of this permit.

If required, the permittee shall further demonstrate compliance with the NOx outlet concentration and lbs/mmBtu emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 7.

Compliance with the rolling, 12-month NOx emission limitation shall based on the monitoring and record keeping requirements established in condition d)(1) of this permit.

b. Emission Limitations:

0.1120 lb CO/mmBtu heat input, and 59.5 tons CO per rolling, 12-month period

Applicable Compliance Method:

Compliance with the CO lb/mmBtu emission limitation has been demonstrated based on the results of emissions testing conducted on this or a similar emissions unit in accordance with approved US EPA Test Methods.

Compliance with the rolling, 12-month CO emission limitation shall based on the monitoring and record keeping requirements established in condition d)(1) of this permit.

If required, the permittee shall demonstrate compliance with the lbs CO/mmBtu limitation above through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4, and 10.

c. Emission Limitations:

6.61 lbs PE/hr and 7.4 tons PE/yr

Applicable Compliance Method:

The hourly PE limitation was established by multiplying the maximum heat input of 472.2 mmBtu/hr by the vendor-supplied emission factor of 0.0140 lb PE/mmBtu.

The annual emission limitation was established by multiplying the vendor-supplied emission factor of 0.0140 lb PE/mmBtu, by the maximum annual natural gas usage of 1,062,369,000 cf, multiplied by the a heat content of 1000 Btu/cf, and then dividing by 2000 lbs/ton. Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-5.

d. Emission Limitations:

2.69 lbs SO₂/hr and 3.0 tons SO₂/yr

Applicable Compliance Method:

The hourly SO₂ emission limitation was established by multiplying the maximum sulfur content (2 gr/100 cf) by the maximum hourly natural gas flow rate (472,164 cf/hr), divide by 7000 gr/lb; and multiply by 2.*

The annual SO₂ emission limitation was established by multiplying the maximum sulfur content (2 gr/100 cf) by the maximum by the maximum annual natural gas usage of 1,062,369,000 cf, then dividing by 7000 gr/lb and 2000 lbs/ton, and multiplying by 2*. Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

*S to SO₂ conversion factor

e. Emission Limitations:

4.25 lbs VOC/hr and 4.8 tons VOC/yr

Applicable Compliance Method:

The hourly allowable VOC emission limitation was established by multiplying the maximum heat input of 472.2 mmBtu/hr by the vendor-supplied emission factor of 0.0090 lb VOC/mmBtu.

The annual emission limitation was established by multiplying the vendor-supplied emission factor of 0.0090 lb VOC/mmBtu, by the maximum annual

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natural gas usage of 1,062,369,000 cf, multiplied by the a heat content of 1000 Btu/cf, and then dividing by 2000 lbs/ton). Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

f. Emission Limitations:

0.34 lb/hr formaldehyde and 0.3 ton formaldehyde/yr

Applicable Compliance Method:

The hourly allowable formaldehyde emission limitation was established by multiplying the emission factor of 0.00071 pound of formaldehyde/mmBtu heat input (from AP-42, Table 3.1-3, revised 4/00) by the maximum heat input capacity of 472.2 mmBtu/hr.

The annual emission limitation was established by multiplying the vendor-supplied emission factor of 0.00071 lb formaldehyde/mmBtu, by the maximum annual natural gas usage of 1,062,369,000 cf, multiplied by the a heat content of 1000 Btu/cf, and then dividing by 2000 lbs/ton. Therefore, as long as compliance with the annual fuel usage limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable formaldehyde emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 320.

g. Emission Limitations:

Startup and shutdown emissions: 12.6 tons NO_x/yr and 4.3 tons CO/yr

Applicable Compliance Method:

Compliance with the annual allowable NO_x and CO emission limitations shall be determined based on the record keeping requirements established in section d)(1) of this permit.

h. Emission Limitation:

Visible PE from any stack shall not exceed 10 percent opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the visible PE limitation shall be determined by Method 9, 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

- (1) Should this emissions unit be converted from a simple cycle to a combined cycle turbine in the future, a new BAT determination shall be required.
- (2) The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_x monitoring system, designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

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

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

- (3) In accordance with good engineering practices, the SCR unit serving emissions unit P001 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.