

**STAFF DETERMINATION FOR THE APPLICATION TO CONSTRUCT
UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS
FOR ROLLING HILLS GENERATING PLANT
Wilkesville, OHIO
PTI NUMBER 06-07747**

November 15, 2005

Ohio Environmental Protection Agency
Division of Air Pollution Control
Lazarus Government Center
122 South Front Street
Columbus, Ohio 43215

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

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

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

For nonattainment areas, the requirements are:

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

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

For rural ozone nonattainment areas, the requirements are:

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

Finally, New Source Performance Standards (NSPS), SIP emission standards and public participation requirements must be followed in all cases.

Site Description

The facility is located near Wilkesville, Ohio, which is located in Vinton County. This area is classified as attainment for all of the criteria pollutants, particulate matter less than 10 microns, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds (ozone) and lead.

Facility Description

Rolling Hills Generating L.L.C. (Rolling Hills) owns a power peaking station located near Wilkesville, Ohio. They are proposing to increase the throughput of 5 simple cycle turbines and one natural gas-fired heater. The result of this relaxation is the source goes from minor PSD status to major PSD status. The Siemens Westinghouse Power Corporation W501 turbines and the heater will only burn natural gas.

New Source Review (NSR)/PSD Applicability

This process will generate criteria pollutant emissions of particulate, NO_x, CO, SO₂ and VOC. For PSD purposes, the Rolling Hills facility is considered a major facility. A PSD analysis is required for any increase in emissions of a pollutant exceeding the PSD threshold emissions level, or the significance levels. Of the pollutants emitted, PM₁₀, NO_x, CO, and SO₂ will result in a net increase above PSD levels. The PSD analysis for this application is based on the entire amount of the requested allowable emission rates (i.e., this application has been processed as though Rolling Hills is as altogether new facility). Non-Attainment New Source Review is not applicable, due to attainment status. There are federally enforceable limitations upon the emissions units such that Maximum Achievable Control Technology (MACT) requirements are not applicable.

TABLE 1

PRELIMINARY POLLUTANT EMISSION RATES
 MODIFICATION TO INCREASE EMISSION RATES
ROLLING HILLS

<u>AIR POLLUTANT</u>	<u>TOTAL TPY INCREASE*</u>	<u>TOTAL TPY ALLOWABLE</u>	<u>PSD THRESHOLD</u>
NO _x	1374.72	1374.72	40
CO	2889	2889	100
PM/PM ₁₀	46.12	46.12	15
SO ₂	138.6	138.6	40
VOC	31.66	31.66	40

* Note: This application was processed from a baseline of zero emissions.

Control Technology Review

As part of the application for any source regulated under the PSD requirements, an analysis must be conducted that demonstrates that Best Available Control Technology (BACT) will be employed by the source. The Rolling Hills facility is subject to PSD regulations which mandate a case-by-case BACT analysis be performed for PSD triggering pollutants. The application used a "top-down" approach to determine an appropriate level of control.

NO_x

Several technologies were evaluated for control of NO_x emissions. The following table summarizes the results of the evaluation.

NO_x Control	Description
SCO NOX	The manufacturer of this control system states that it is not feasible for use on simple cycle or "peaking" units, which typically have higher operating temperatures and fluctuating temperature levels.
SCR	The applicant reviewed permits of several turbine permits. Rolling Hills has demonstrated that SCR is not cost effective for the turbines at the facility.
XONOX	It was found that this is not a demonstrated technology.
Lean Burn or Dry Low NO _x	This technology is considered the baseline for natural gas fueled units, at 15 ppm. Rolling Hills selected this technology for gas combustion.
Water Injection	This technology is considered the baseline for oil fueled units, at 42 ppm. This technology was not found to be suitable for a natural gas fired turbine.

The final BACT chosen for NO_x control is 15 ppm as a daily average when burning natural gas.

CO

Several technologies were evaluated for control of CO emissions. The following table summarizes the results of the evaluation.

CO Control	Description
SCO NOX	This is not a demonstrated technology on simple cycle turbines.
XONON	This is still an emerging technology.
Catalytic Oxidation	This add-on control was found to be feasible, however, it is not considered to be cost effective.
Good Engineering design	Good engineering design means for better combustion efficiency resulting in lower VOC and CO emissions and more carbon dioxide. This was selected as CO BACT and is consistent with the RBLC and US EPA's turbine's list.

PM₁₀ and SO₂

This use of natural gas and fuel oil with a maximum sulfur content of 2 grains per 100 ft² will be considered BACT for these pollutants. No other control options were found to be installed in simple cycle turbines.

Ambient Air Quality Monitoring Requirements

The Rolling Hills facility to be modified is located in AQCR 182. The area is attainment for all criteria pollutants. U.S. EPA regulations require the establishment of baseline air quality in the vicinity of the proposed project. This is normally accomplished using representative air quality monitoring data. Air quality modeling can be utilized to demonstrate that the project will have less than a threshold impact. This threshold impact is identified as the PSD monitoring de minimus level. If the projected impact from the proposed project exceeds this level, ambient data must be collected or existing representative data must be identified.

Rolling Hills has conducted ambient air quality modeling to determine the potential impact due to the proposed installation. The following are the projected impacts:

<u>Pollutant</u>	<u>Averaging Period</u>	<u>Predicted Concentration</u>	<u>Monitoring De minimus Concentration</u>
PM10	24-hour	6.48 ug/m3	10 ug/m3
SO ₂	24-hour	0.53 ug/m3	13 ug/m3
NOx	Annual	4.69 ug/m3	14 ug/m3
CO	8-hour	152.59 ug/m3	532 ug/m3

Predicted impacts do not exceed the monitoring threshold for PM10, CO, SO2 or NOx. Therefore, Rolling Hills would not be required to conduct pre-construction monitoring.

Modeling

Air quality dispersion was conducted to assess the effect of this modification on the national ambient air quality standards (NAAQS) and PSD increments. ISCST3 (version 02035) was used in the regulatory default, rural mode. Five years of meteorological data (Huntington/Huntington, 1987-1991) were used.

Predicted impacts of PM10 and NOx were above their corresponding PSD significant impact increments while CO and SO2 did not exceed their respective significant impact levels. Therefore, additional modeling for compliance with both the NAAQS and PSD increments was required for PM10 and NOx.

Increment

All areas surrounding the Rolling Hills facility are Class II PSD areas. It is the Ohio EPA policy that no individual project consumes more than 50% of the available PSD increment. For CO and Pb, projects are constrained to no more than 25% of the NAAQS. The following is the summary of the impact of increment consuming sources (peak annual and high-second-high short term impacts, except PM10 6th high 24-hour over five years):

<u>Pollutant</u>	<u>Averaging Period</u>	<u>Predicted Concentration</u>	<u>PSD Increment Concentration</u>
PM10	24-hour	6.48 ug/m3	30 ug/m3
	Annual	0.36 ug/m3	17 ug/m3
NOx	Annual	4.69 ug/m3	25 ug/m3

NAAQS

Existing sources at the facility, existing sources above the PSD significant rates within the Rolling Hills significant impact area (SIA) and sources greater than 100 tons/year outside of the SIA are modeled to determine the combined impact of existing significant sources. A background value is added to account for minor sources not explicitly included in the modeling.

<u>Pollutant</u>	<u>Averaging Period</u>	<u>Predicted Concentration</u>	<u>NAAQS Concentration</u>	<u>Concentration With Background</u>
PM10	24-hour	6.48 ug/m3	150 ug/m3	48.48 ug/m3
	Annual	0.36 ug/m3	50 ug/m3	22.76 ug/m3
NOx	Annual	7.11 ug/m3	100 ug/m3	45.84 ug/m3

Secondary Impact Analysis

Rolling Hills has demonstrated that the predicted pollutant concentrations throughout the study area are below the secondary NAAQS thresholds. The secondary NAAQS are designed to limit the amount of pollutants in the ambient air to levels below those which could have an adverse impact on human welfare, soils and vegetation. The modeling analyses demonstrate that no significant impacts on human welfare, soils or vegetation will occur from the proposed modification.

Growth: No expansion of employees nor growth in the area population is expected.

Soil and Vegetation: EPA Air Quality Criteria documents were reviewed for information on pollutants and adverse effects on the type of vegetation and soils in the area. No adverse impact upon soils or vegetation is expected. The modeled concentrations are below the primary and secondary NAAQS limits.

Visibility: The Rolling Hills Facility is approximately 260 kilometers from the nearest Class I area (Dolly Sods Wilderness Area). Primary or secondary pollutants associated with this project are not anticipated to affect local or class I visibility.

Toxics Analysis

The Ohio Air Toxics Policy requires evaluation of increases in air toxics above the one ton/year threshold. Emissions rates are modeled to determine whether they exceed the Maximum Acceptable Ground Level Concentration (MAGLC) which is defined under the Air Toxics Policy. There were no air toxics exceeding the MAGLC.

Conclusions

Based upon the review of the permit to install application and the supporting documentation provided by Rolling Hills, the Ohio EPA staff has determined the installation will comply with all applicable State and Federal environmental regulations and that the requirements for BACT are satisfied. Therefore, the Ohio EPA staff recommends that a permit to install be issued to Rolling Hills for the installation of five simple cycle turbines and one fuel gas heater.

Synthetic Minor Determination and/or Netting Determination

Permit To Install **06-07747**

A. Source Description:

Rolling Hills Generating, LLC operates five natural gas turbines and an associated gas line heater at its Wilkesville, Ohio facility in Vinton county. The facility originally requested a restriction of 249.0 tons per year of NO_x and CO to avoid PSD applicability. It is proposing an increase in the allowable hours of operation that will cause annual emissions of PM₁₀, NO_x, CO, and SO₂ to exceed PSD applicability thresholds. Each of the five turbines have a short-term limit of 117 lbs/hr of NO_x, 119 lbs/hr of CO, and 0.991 lb/hr of formaldehyde. The result is a potential exceedance of PSD and MACT thresholds.

B. Facility Emissions and Attainment Status:

Vinton county is attainment for all pollutants. The purpose of this synthetic minor is to restrict annual HAP emissions through an hours of operation restriction. The sources will become major for PM₁₀, NO_x, CO, and SO₂, however the facility will avoid MACT requirements by limiting formaldehyde emissions to 0.991 lb/hr for each turbine and 9.9 tons per year, facility wide.

C. Source Emissions:

The facility has requested that each emission unit located at the facility be limited to 4,000 hours of operation per rolling 12-month period through federally enforceable STC's. The facility is required to track hours of operation, natural gas usage, fuel flow, and employ NO_x and CO continuous emission monitors. The facility is also required to submit excursion reports.

D. Conclusion:

The emission limitations in this permit are adequate to provide a federally enforceable framework for assuring the applicable MACT thresholds will not be exceeded.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
VINTON COUNTY**

CERTIFIED MAIL

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov.
Center

Application No: 06-07747

Fac ID: 0682000057

DATE: 11/15/2005

Rolling Hills Generating Plant
Robert Blacet
43111 State Route 160
Wilkesville, OH 45695

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on 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 proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$5400** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

SEDO

KY

WV

VINTON COUNTY

PUBLIC NOTICE

ISSUANCE OF DRAFT PERMIT TO INSTALL **06-07747** FOR AN AIR CONTAMINANT SOURCE FOR **Rolling Hills Generating Plant**

On 7/26/2005 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Rolling Hills Generating Plant**, located at **43111 State Route 160, Wilkesville, Ohio**.

On November 15, 2005 the Director of the Ohio Environmental Protection Agency reissued a draft action of a Permit To Install an air contaminant source for **Rolling Hills Generating Plant** due to substantial revisions to the terms of the permit.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 06-07747:

Chapter 31 modification for an increase in authorized annual emissions and operating hours.

The U.S. EPA allows sources to consume no more than the maximum available ambient PSD increment(s) for each PSD pollutant. The Ohio EPA allows PSD sources to consume less than one half the available increment, with some exceptions. If more than 50% of the available increment is consumed, it should be demonstrated that the only potential constraint on future growth in the region would be on the applicant. Project impacts were less than 50% of the available PSD increment for both PM10 and NOx. Therefore, the Dynergy project meets both Ohio EPA and U.S. EPA incremental impact requirements.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Bruce Weinberg, Ohio EPA, Southeast District Office, 2195 Front Street, Logan, OH 43138
[(740)385-8501]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 06-07747

Application Number: 06-07747
Facility ID: 0682000057
Permit Fee: **To be entered upon final issuance**
Name of Facility: Rolling Hills Generating Plant
Person to Contact: Robert Blacet
Address: 43111 State Route 160
Wilkesville, OH 45695

Location of proposed air contaminant source(s) [emissions unit(s)]:
**43111 State Route 160
Wilkesville, Ohio**

Description of proposed emissions unit(s):
Chapter 31 modification for an increase in authorized annual emissions and operating hours.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

Director

A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. 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:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. 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 appropriate Ohio EPA District Office or local air agency. The written

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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 B.9 below if no deviations occurred during the quarter.

- iii. 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 appropriate Ohio EPA District Office or local air agency 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.
 - iv. If this permit is for an emissions unit located at a Title V facility, then 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.

2. 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 appropriate Ohio EPA District Office or local air agency 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).

3. 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.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain,

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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.

5. Severability Clause

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.

6. 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.

7. 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

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permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. 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:
 - i. 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.
 - ii. 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.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. 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 appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or

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more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
- ii. 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.

10. Permit-To-Operate Application

- a. If 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).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or

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"modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

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.

2. 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 appropriate Ohio EPA District Office or local air agency.
- 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 appropriate Ohio EPA District Office or local air agency. 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.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of

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the permit if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

5. Construction of New Sources(s)

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.

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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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.

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C. Permit-To-Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	173.52
PM10	173.52
SO2	59.04
NOx	1,177.01
CO	3,103.76
VOC	37.69
Total HAPs	16.64
formaldehyde	9.9

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P001 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	OAC rule 3745-31-05(A)(3)
This PTI is a Chapter 31 Modification of PTI #06-06296 to allow an increase in the hours of operation to 4,000 hours or less per rolling 12-month period.	OAC rule 3745-31-10 through 3745-31-20

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	<u>Applicable Emissions Limitations/Control Measures</u>	
40 CFR part 60, Subpart GG	The requirements of this rule also include compliance with the requirements of 40 CFR 60 Subpart GG, 40 CFR Part 75, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-103.	Formaldehyde emissions shall not exceed 0.991 lb/hr. Ammonia (NH ₃) emissions shall not exceed 33.8 lbs/hr if Hot SCR (Selective Catalytic Reduction) is employed (see A.I.2.d. below). PE shall not exceed 34.60 tons per rolling, 12-month period.
OAC rule 3745-18-06(F) OAC Rule 3745-17-11(B)(4)	Visible Particulate emissions (PE) from any stack shall not exceed 10 percent opacity as a six-minute average.	PM10 emissions shall not exceed 34.60 tons per rolling, 12-month period.
OAC Rule 3745-17-07(A) 40 CFR Part 75	PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	NO _x emissions shall not exceed 234.0 tons per rolling, 12-month period.
OAC rule 3745-103 OAC rule 3745-31-05(A)(3)	PM10 emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr. Nitrogen oxides (NO _x) emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs/hr, except during periods of startup/shutdown (SU/SD). Carbon monoxide (CO) emissions shall not exceed 119 lbs/hr, except during periods of SU/SD (see A.II.2. below). Sulfur dioxide (SO ₂) emissions shall not exceed 5.9 lbs/hr. Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr.	CO emissions shall not exceed 619.0 tons per rolling, 12-month period. SO ₂ emissions shall not exceed 11.80 tons per rolling, 12-month period. VOC emissions shall not exceed 6.40 tons per rolling, 12-month period. Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period. Ammonia (NH ₃) emissions shall not exceed 67.60 tons per rolling 12-month period, if/when Hot SCR is employed. See A.I.2.f. below. See A.I.2.b. below.

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See A.I.2.a. below.

See A.I.2.a. below.

See A.I.2.a. below.

See A.I.2.c. and A.I.2.e.
below.

See A.I.2.c. below.

2. Additional Terms and Conditions

- 2.a** The emissions limits based on these applicable rules are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05.
- 2.b** The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.c** The permittee is subject to the requirements of 40 CFR Part 75 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.
- 2.d** The permittee has requested as a voluntary option the ability to employ Hot SCR for the control of NO_x emissions. If employed, the associated ammonia (NH₃) slip shall maintain compliance with the Ohio EPA Air Toxics Policy.
- 2.e** In lieu of monitoring the stack gas flow rate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NO_x CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs in conjunction with a fuel flow monitor (in a manner similar to that used for NO_x) to meet these requirements. The relative accuracy requirements of Performance Specification 6 shall apply.
- 2.f** The maximum annual operating hours for this emissions unit shall not exceed 4,000 hours, based upon a rolling, 12-month summation of the operating hours.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.
2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 37 minutes in duration and shutdowns shall not exceed 25 minutes in duration. Emissions of NO_x during startup and shutdown shall be continuously monitored and recorded by certified CEMs. Emissions of CO during each startup/shutdown cycle shall be recorded and totaled. CO emissions shall not exceed 2,087 lbs per SU/SD cycle. These limits were established during startup testing at the facility.

3. Continuous NO_x Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation 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; the accuracy requirements of Specification 6; 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 permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of NO_x is being calculated stoichiometrically. 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

4. Continuous CO Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous CO monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate), and the accuracy requirements of Specification 6. The permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. The letter(s)/document(s) of certification under Part 60 shall be

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made available to the Director (the appropriate Ohio EPA District Office or local air agency) 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.

Issued: To be entered upon final issuance**5. Continuous O₂ or CO₂ Monitoring - Certified Systems
Statement of Certification**

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O₂ or CO₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3; 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The natural gas usage rate for each month (in standard cubic feet);
 - b. the operating hours of the unit;
 - c. the rolling, 12-month summation of the operating hours, and
 - d. the rolling, 12-month emissions of NO_x and CO, in tons (i.e., c. x term III.8/2000 + the tons of NO_x and CO as recorded in term II.2., for each pollutant).
2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual

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calibration adjustments.

The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record O₂ or CO₂ from this emissions unit in percent O₂ or CO₂. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O₂ or CO₂ monitoring system including, but not limited to, percent O₂ or CO₂ on an instantaneous (one-minute) basis, emissions of O₂ or CO₂ in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
5. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.
6. The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.4. and fuel gross calorific value as determined in term A.III.5. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.
7. The permittee shall maintain records of the following information for P001:
 - a. The number of startups, and the duration of each startup;

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- b. The number of shutdowns, and the duration of each shutdown.
8. The permittee shall maintain hourly records of the lbs/hr emissions rate for NO_x and CO as obtained from terms III.2. and 3. based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.
 9. In accordance with the provisions of 40 CFR Part 60, Subpart GG, the permittee has requested a Custom Fuel Monitoring Schedule(CFMS) for fuel sulfur content. USEPA, Region V granted approval of a CFMS in a letter to the permittee, dated June 17, 2003. The permittee shall comply with either the provisions of the CFMS or the schedule(s) contained in Subpart GG. The permittee has implemented a successful CFMS in accordance with the following and issuance of this permit does not require establishment of a new CFMS:
 - a. Conduct semi-annual monitoring of fuel sulfur content.
 - b. If sulfur analysis indicates non-compliance with limits at 40 CFR Part 60.333, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the excess emissions. The permittee must also begin fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.
 - c. If a change in the type of fuel or fuel supply/supplier occurs, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the change(s). The permittee must also begin conducting fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.

IV. 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. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hour limitation. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 75 and any limitations specified in the terms and conditions of this permit. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data

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procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

4. The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) in units of the standard. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

6. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of continuous O₂ or CO₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 grains per standard cubic foot. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
8. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.
9. This emissions unit is subject to the applicable provisions of Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:
 - a. Emission Limitation:

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

Applicable Compliance Method:

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If required, compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

b. Emission Limitation:

PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

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

c. Emission Limitation:

PM10 emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

d. Emission Limitation:

NO_x emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs /hr, except during periods of startup/shutdown (SU/SD).

Applicable Compliance Method:

If required, compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated in accordance with Method 7, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for NO_x per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

e. Emission Limitation:

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CO emissions shall not exceed 119 lbs/hr, except during periods of SU/SD.

Applicable Compliance Method:

If required, compliance with the allowable lbs/hr emission limitation shall be demonstrated in accordance with Method 10, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated on the record keeping requirements in A.II.2., by the use of the CEM in condition A.III.2., and based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for CO per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

f. Emission Limitation:

SO₂ emissions shall not exceed 5.9 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by the record keeping required in condition A.III.1. and 5. If required, the permittee shall demonstrate compliance by emission testing in accordance with Method 6, 40 CFR Part 60, Appendix A.

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g. Emission Limitation:

VOC emissions shall not exceed 3.2 lbs/hr.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with Method 25, 40 CFR Part 60, Appendix A.

h. Emission Limitation:

Formaldehyde emissions shall not exceed 0.991 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

i. Emission Limitation:

NH₃ emissions shall not exceed 33.8 lbs/hr if Hot SCR is employed.

Applicable compliance Method:

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0136 pound of ammonia/MMBTU heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods.

j. Emission Limitation:

PE shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during

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the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

k. Emission Limitation:

PM10 shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

l. Emission Limitation:

NO_x emissions shall not exceed 234.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 3. The 12-month rolling emissions associated with start-up and shut-down shall also be included and demonstrated by the use of CEM in condition A.III.3.

m. Emission Limitation:

CO emissions shall not exceed 619.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 4. The 12-month rolling emissions associated with start-up and shut-down shall be included and determined by the record keeping required in condition A. III. 7. using the lbs/ start-up and shut-down values in condition A.II.2.

n. Emission Limitation:

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SO₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

o. Emission Limitation:

VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.

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Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1.).

p. Emission Limitation:

Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1).

q. Emission Limitation:

NH3 emissions shall not exceed 67.60 tons per rolling, 12-month period, if/when Hot SCR is employed.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days after Final issuance of the Permit To Install.
 - b. The emission testing shall be conducted to demonstrate compliance with the

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mass emissions limitations for PM10 and Formaldehyde.

- c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for PM10, EPA Methods 201 and 202 of 40 CFR Part 60, Appendix A; and for Formaldehyde, EPA Method 316. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by Ohio EPA or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

VI. Miscellaneous Requirements

1. The requirements of this PTI supersede the requirements in PTI No. 06-06296.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	None	None

2. Additional Terms and Conditions

- 2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install was evaluated based on actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air 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 to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde

TLV (ug/m³): 273 (Converted from the STEL)

Maximum Hourly Emission Rate (lbs/hr): 4.96*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4.36*

MAGLC (ug/m³): 9.0

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* This is the combined emission rate and maximum predicted impact modeled for emissions units P001, P002, P003, P004, P005, and P006.

Pollutant: Ammonia

TLV (ug/m3): 17000

Maximum Hourly Emission Rate (lbs/hr): 67.6*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5.027*

MAGLC (ug/m3): 414

* This is the combined emission rate and maximum predicted impact modeled for emissions units P001 and P002.

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 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, 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 specified in the above table;
- 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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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. 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.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P002 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	OAC rule 3745-31-05(A)(3)
This PTI is a Chapter 31 Modification of PTI #06-06296 to allow an increase in the hours of operation to 4,000 hours or less per rolling 12-month period.	OAC rule 3745-31-10 through 3745-31-20

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	<u>Applicable Emissions Limitations/Control Measures</u>	
40 CFR part 60, Subpart GG	The requirements of this rule also include compliance with the requirements of 40 CFR 60 Subpart GG, 40 CFR Part 75, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-103.	Formaldehyde emissions shall not exceed 0.991 lb/hr. Ammonia (NH ₃) emissions shall not exceed 33.8 lbs/hr if Hot SCR (Selective Catalytic Reduction) is employed (see A.I.2.d. below). PE shall not exceed 34.60 tons per rolling, 12-month period.
OAC rule 3745-18-06(F) OAC Rule 3745-17-11(B)(4)	Visible Particulate emissions (PE) from any stack shall not exceed 10 percent opacity as a six-minute average.	PM10 emissions shall not exceed 34.60 tons per rolling, 12-month period.
OAC Rule 3745-17-07(A) 40 CFR Part 75	PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	NO _x emissions shall not exceed 234.0 tons per rolling, 12-month period.
OAC rule 3745-103 OAC rule 3745-31-05(A)(3)	PM10 emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	CO emissions shall not exceed 619.0 tons per rolling, 12-month period.
	Nitrogen oxides (NO _x) emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs/hr, except during periods of startup/shutdown (SU/SD).	SO ₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.
	Carbon monoxide (CO) emissions shall not exceed 119 lbs/hr, except during periods of SU/SD (see A.II.2. below).	VOC emissions shall not exceed 6.40 tons per rolling, 12-month period. Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period.
	Sulfur dioxide (SO ₂) emissions shall not exceed 5.9 lbs/hr.	Ammonia (NH ₃) emissions shall not exceed 67.60 tons per rolling 12-month period, if/when Hot SCR is employed.
	Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr.	See A.I.2.f. below. See A.I.2.b. below.

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See A.I.2.a. below.

See A.I.2.a. below.

See A.I.2.a. below.

See A.I.2.c. and A.I.2.e.
below.

See A.I.2.c. below.

2. Additional Terms and Conditions

- 2.a** The emissions limits based on these applicable rules are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05.
- 2.b** The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.c** The permittee is subject to the requirements of 40 CFR Part 75 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.
- 2.d** The permittee has requested as a voluntary option the ability to employ Hot SCR for the control of NO_x emissions. If employed, the associated ammonia (NH₃) slip shall maintain compliance with the Ohio EPA Air Toxics Policy.
- 2.e** In lieu of monitoring the stack gas flow rate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NO_x CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs in conjunction with a fuel flow monitor (in a manner similar to that used for NO_x) to meet these requirements. The relative accuracy requirements of Performance Specification 6 shall apply.
- 2.f** The maximum annual operating hours for this emissions unit shall not exceed 4,000 hours, based upon a rolling, 12-month summation of the operating hours.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.
2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 37 minutes in duration and shutdowns shall not exceed 25 minutes in duration. Emissions of NO_x during startup and shutdown shall be continuously monitored and recorded by certified CEMs. Emissions of CO during each startup/shutdown cycle shall be recorded and totaled. CO emissions shall not exceed 2,087 lbs per SU/SD cycle. These limits were established during startup testing at the facility.

3. Continuous NO_x Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation 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; the accuracy requirements of Specification 6; 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 permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of NO_x is being calculated stoichiometrically. 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

4. Continuous CO Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous CO monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate), and the accuracy requirements of Specification 6. The permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. The letter(s)/document(s) of certification under Part 60 shall be

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made available to the Director (the appropriate Ohio EPA District Office or local air agency) 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.

5. Continuous O₂ or CO₂ Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O₂ or CO₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3; 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

III. **Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The natural gas usage rate for each month (in standard cubic feet);
 - b. the operating hours of the unit;
 - c. the rolling, 12-month summation of the operating hours, and
 - d. the rolling, 12-month emissions of NO_x and CO, in tons (i.e., c. x term III.8/2000 + the tons of NO_x and CO as recorded in term II.2., for each pollutant).
2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40

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CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record O₂ or CO₂ from this emissions unit in percent O₂ or CO₂. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O₂ or CO₂ monitoring system including, but not limited to, percent O₂ or CO₂ on an instantaneous (one-minute) basis, emissions of O₂ or CO₂ in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
5. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.
6. The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.4. and fuel gross calorific value as determined in term A.III.5. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.
7. The permittee shall maintain records of the following information for P002:
 - a. The number of startups, and the duration of each startup;

- b. The number of shutdowns, and the duration of each shutdown.
8. The permittee shall maintain hourly records of the lbs/hr emissions rate for NO_x and CO as obtained from terms III.2. and 3. based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.
9. In accordance with the provisions of 40 CFR Part 60, Subpart GG, the permittee has requested a Custom Fuel Monitoring Schedule(CFMS) for fuel sulfur content. USEPA, Region V granted approval of a CFMS in a letter to the permittee, dated June 17, 2003. The permittee shall comply with either the provisions of the CFMS or the schedule(s) contained in Subpart GG. The permittee has implemented a successful CFMS in accordance with the following and issuance of this permit does not require establishment of a new CFMS:
 - a. Conduct semi-annual monitoring of fuel sulfur content.
 - b. If sulfur analysis indicates non-compliance with limits at 40 CFR Part 60.333, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the excess emissions. The permittee must also begin fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.
 - c. If a change in the type of fuel or fuel supply/supplier occurs, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the change(s). The permittee must also begin conducting fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.

IV. 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. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hour limitation. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 75 and any limitations specified in the terms and conditions of this permit. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data

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procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

4. The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) in units of the standard. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

6. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of continuous O₂ or CO₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 grains per standard cubic foot. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
8. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P002 in accordance with this permit.
9. This emissions unit is subject to the applicable provisions of Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

- a. Emission Limitation:

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

Applicable Compliance Method:

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If required, compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

b. Emission Limitation:

PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

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

c. Emission Limitation:

PM10 emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

d. Emission Limitation:

NO_x emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs /hr, except during periods of startup/shutdown (SU/SD).

Applicable Compliance Method:

If required, compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated in accordance with Method 7, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for NO_x per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

e. Emission Limitation:

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CO emissions shall not exceed 119 lbs/hr, except during periods of SU/SD.

Applicable Compliance Method:

If required, compliance with the allowable lbs/hr emission limitation shall be demonstrated in accordance with Method 10, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated on the record keeping requirements in A.II.2., by the use of the CEM in condition A.III.2., and based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for CO per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

f. Emission Limitation:

SO₂ emissions shall not exceed 5.9 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by the record keeping required in condition A.III.1. and 5. If required, the permittee shall demonstrate compliance by emission testing in accordance with Method 6, 40 CFR Part 60, Appendix A.

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g. Emission Limitation:

VOC emissions shall not exceed 3.2 lbs/hr.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with Method 25, 40 CFR Part 60, Appendix A.

h. Emission Limitation:

Formaldehyde emissions shall not exceed 0.991 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

i. Emission Limitation:

NH₃ emissions shall not exceed 33.8 lbs/hr if Hot SCR is employed.

Applicable compliance Method:

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0136 pound of ammonia/MMBTU heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods.

j. Emission Limitation:

PE shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during

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the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

k. Emission Limitation:

PM10 shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

l. Emission Limitation:

NO_x emissions shall not exceed 234.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 3. The 12-month rolling emissions associated with start-up and shut-down shall also be included and demonstrated by the use of CEM in condition A.III.3.

m. Emission Limitation:

CO emissions shall not exceed 619.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 4. The 12-month rolling emissions associated with start-up and shut-down shall be included and determined by the record keeping required in condition A. III. 7. using the lbs/ start-up and shut-down values in condition A.II.2.

n. Emission Limitation:

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SO₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

o. Emission Limitation:

VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.

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Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1.).

p. Emission Limitation:

Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1.).

q. Emission Limitation:

NH₃ emissions shall not exceed 67.60 tons per rolling, 12-month period, if/when Hot SCR is employed.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days after Final issuance of the Permit To Install.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emissions limitations for PM₁₀ and Formaldehyde.

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- c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for PM10, EPA Methods 201 and 202 of 40 CFR Part 60, Appendix A; and for Formaldehyde, EPA Method 316. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by Ohio EPA or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

* Using the test methods and procedures required under 40 CFR Part 60.335.

VI. Miscellaneous Requirements

1. The requirements of this PTI supersede the requirements in PTI No. 06-06296.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	None	None

2. Additional Terms and Conditions

- 2.a** None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install was evaluated based on actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air 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 to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
 TLV (ug/m³): 273 (Converted from the STEL)
 Maximum Hourly Emission Rate (lbs/hr): 4.96*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4.36*
 MAGLC (ug/m³): 9.0

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* This is the combined emission rate and maximum predicted impact modeled for emissions units P001, P002, P003, P004, P005, and P006.

Pollutant: Ammonia

TLV (ug/m3): 17000

Maximum Hourly Emission Rate (lbs/hr): 67.6*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5.027*

MAGLC (ug/m3): 414

* This is the combined emission rate and maximum predicted impact modeled for emissions units P001 and P002.

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 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, 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 specified in the above table;
- 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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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. 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.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P003 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	OAC rule 3745-31-05(A)(3)
This PTI is a Chapter 31 Modification of PTI #06-06296 to allow an increase in the hours of operation to 4,000 hours or less per rolling 12-month period.	OAC rule 3745-31-10 through 3745-31-20

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	Applicable Emissions <u>Limitations/Control Measures</u>	
40 CFR part 60, Subpart GG	The requirements of this rule also include compliance with the requirements of 40 CFR 60 Subpart GG, 40 CFR Part 75, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-103.	Formaldehyde emissions shall not exceed 0.991 lb/hr. PE shall not exceed 34.60 tons per rolling, 12-month period. PM10 emissions shall not exceed 34.60 tons per rolling, 12-month period.
OAC rule 3745-18-06(F) OAC Rule 3745-17-11(B)(4)	Visible Particulate emissions (PE) from any stack shall not exceed 10 percent opacity as a six-minute average.	NO _x emissions shall not exceed 234.0 tons per rolling, 12-month period.
OAC Rule 3745-17-07(A) 40 CFR Part 75	PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	CO emissions shall not exceed 619.0 tons per rolling, 12-month period. SO ₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.
OAC rule 3745-103 OAC rule 3745-31-05(A)(3)	PM10 emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.
	Nitrogen oxides (NO _x) emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs/hr, except during periods of startup/shutdown (SU/SD).	Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period. See A.I.2.e. below.
	Carbon monoxide (CO) emissions shall not exceed 119 lbs/hr, except during periods of SU/SD (see A.II.2. below).	See A.I.2.b. below. See A.I.2.a. below.
	Sulfur dioxide (SO ₂) emissions shall not exceed 5.9 lbs/hr.	See A.I.2.a. below. See A.I.2.a. below.
	Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr.	See A.I.2.c. and A.I.2.d. below. See A.I.2.c. below.

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2. Additional Terms and Conditions

- 2.a The emissions limits based on these applicable rules are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05.
- 2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.c The permittee is subject to the requirements of 40 CFR Part 75 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.
- 2.d In lieu of monitoring the stack gas flow rate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NO_x CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs in conjunction with a fuel flow monitor (in a manner similar to that used for NO_x) to meet these requirements. The relative accuracy requirements of Performance Specification 6 shall apply.
- 2.e The maximum annual operating hours for this emissions unit shall not exceed 4,000 hours, based upon a rolling, 12-month summation of the operating hours.

II. Operational Restrictions

- 1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.
- 2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 37 minutes in duration and shutdowns shall not exceed 25 minutes in duration. Emissions of NO_x during startup and shutdown shall be continuously monitored and recorded by certified CEMs. Emissions of CO during each startup/shutdown cycle shall be recorded and totaled. CO emissions shall not exceed 2,087 lbs per SU/SD cycle. These limits were established during startup testing at the facility.
- 3. Continuous NO_x Monitoring - Certified Systems

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The permittee shall maintain on-site documentation 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; the accuracy requirements of Specification 6; 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 permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of NO_x is being calculated stoichiometrically. 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

4. Continuous CO Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous CO monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate), and the accuracy requirements of Specification 6. The permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. The letter(s)/document(s) of certification under Part 60 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) 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.

5. Continuous O₂ or CO₂ Monitoring - Certified Systems
Statement of Certification

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The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O₂ or CO₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3; 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The natural gas usage rate for each month (in standard cubic feet);
 - b. the operating hours of the unit;
 - c. the rolling, 12-month summation of the operating hours, and
 - d. the rolling, 12-month emissions of NO_x, and CO, in tons (i.e., c. x term III.8/2000 + the tons of NO_x and CO as recorded in term II.2., for each pollutant).
2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an

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instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record O₂ or CO₂ from this emissions unit in percent O₂ or CO₂. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O₂ or CO₂ monitoring system including, but not limited to, percent O₂ or CO₂ on an instantaneous (one-minute) basis, emissions of O₂ or CO₂ in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
5. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.
6. The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.4. and fuel gross calorific value as determined in term A.III.5. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.
7. The permittee shall maintain records of the following information for P003:
 - a. The number of startups, and the duration of each startup;
 - b. The number of shutdowns, and the duration of each shutdown.
8. The permittee shall maintain hourly records of the lbs/hr emissions rate for NO_x and CO

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as obtained from terms III.2. and 3. based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

9. In accordance with the provisions of 40 CFR Part 60, Subpart GG, the permittee has requested a Custom Fuel Monitoring Schedule (CFMS) for fuel sulfur content. USEPA, Region V granted approval of a CFMS in a letter to the permittee, dated June 17, 2003. The permittee shall comply with either the provisions of the CFMS or the schedule(s) contained in Subpart GG. The permittee has implemented a successful CFMS in accordance with the following and issuance of this permit does not require establishment of a new CFMS:
 - a. Conduct semi-annual monitoring of fuel sulfur content.
 - b. If sulfur analysis indicates non-compliance with limits at 40 CFR Part 60.333, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the excess emissions. The permittee must also begin fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.
 - c. If a change in the type of fuel or fuel supply/supplier occurs, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the change(s). The permittee must also begin conducting fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.

IV. 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. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hour limitation. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 75 and any limitations specified in the terms and conditions of this permit. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along

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with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

4. The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) in units of the standard. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions.

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The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

6. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of continuous O₂ or CO₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 grains per standard cubic foot. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
8. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P003 in accordance with this permit.
9. This emissions unit is subject to the applicable provisions of Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:
 - a. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

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b. Emission Limitation:

PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

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

c. Emission Limitation:

PM₁₀ emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

d. Emission Limitation:

NO_x emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs /hr, except during periods of startup/shutdown (SU/SD).

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Applicable Compliance Method:

If required, compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated in accordance with Method 7, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for NO_x per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

e. Emission Limitation:

CO emissions shall not exceed 119 lbs/hr, except during periods of SU/SD.

Applicable Compliance Method:

If required, compliance with the allowable lbs/hr emission limitation shall be demonstrated in accordance with Method 10, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated on the record keeping requirements in A.II.2., by the use of the CEM in condition A.III.2., and based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for CO per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

f. Emission Limitation:

SO₂ emissions shall not exceed 5.9 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by the record keeping required in condition A.III.1. and 5. If required, the permittee shall demonstrate compliance by emission testing in accordance with Method 6, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

VOC emissions shall not exceed 3.2 lbs/hr.

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Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with Method 25, 40 CFR Part 60, Appendix A.

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h. Emission Limitation:

Formaldehyde emissions shall not exceed 0.991 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

i. Emission Limitation:

PE shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

j. Emission Limitation:

PM10 shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

k. Emission Limitation:

NO_x emissions shall not exceed 234.0 tons per rolling, 12-month period.

Applicable Compliance Method:

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Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 3. The 12-month rolling emissions associated with start-up and shut-down shall also be included and demonstrated by the use of CEM in condition A.III.3.

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I. Emission Limitation:

CO emissions shall not exceed 619.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 4. The 12-month rolling emissions associated with start-up and shut-down shall be included and determined by the record keeping required in condition A. III. 7. using the lbs/ start-up and shut-down values in condition A.II.2.

m. Emission Limitation:

SO₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

n. Emission Limitation:

VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1.).

o. Emission Limitation:

Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period.

Applicable Compliance Method:

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Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days after Final issuance of the Permit To Install.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emissions limitations for PM10 and Formaldehyde.
 - c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for PM10, EPA Methods 201 and 202 of 40 CFR Part 60, Appendix A; and for Formaldehyde, EPA Method 316. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by Ohio EPA or local air agency.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

VI. Miscellaneous Requirements

1. The requirements of this PTI supersede the requirements in PTI No. 06-06296.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P003 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	None	None

2. Additional Terms and Conditions

- 2.a** None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install was evaluated based on actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air 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 to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
 TLV (ug/m³): 273 (Converted from the STEL)
 Maximum Hourly Emission Rate (lbs/hr): 4.96*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4.36*
 MAGLC (ug/m³): 9.0

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* This is the combined emission rate and maximum predicted impact modeled for emissions units P001, P002, P003, P004, P005, and P006.

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 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, 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 specified in the above table;
- 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

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- 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.

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IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P004 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	OAC rule 3745-31-05(A)(3)
This PTI is a Chapter 31 Modification of PTI #06-06296 to allow an increase in the hours of operation to 4,000 hours or less per rolling 12-month period.	OAC rule 3745-31-10 through 3745-31-20

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	Applicable Emissions <u>Limitations/Control Measures</u>	
40 CFR part 60, Subpart GG	The requirements of this rule also include compliance with the requirements of 40 CFR 60 Subpart GG, 40 CFR Part 75, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-103.	Formaldehyde emissions shall not exceed 0.991 lb/hr. PE shall not exceed 34.60 tons per rolling, 12-month period. PM10 emissions shall not exceed 34.60 tons per rolling, 12-month period.
OAC rule 3745-18-06(F) OAC Rule 3745-17-11(B)(4)	Visible Particulate emissions (PE) from any stack shall not exceed 10 percent opacity as a six-minute average.	NO _x emissions shall not exceed 234.0 tons per rolling, 12-month period.
OAC Rule 3745-17-07(A) 40 CFR Part 75	PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	CO emissions shall not exceed 619.0 tons per rolling, 12-month period. SO ₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.
OAC rule 3745-103 OAC rule 3745-31-05(A)(3)	PM10 emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.
	Nitrogen oxides (NO _x) emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs/hr, except during periods of startup/shutdown (SU/SD).	Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period. See A.I.2.e. below.
	Carbon monoxide (CO) emissions shall not exceed 119 lbs/hr, except during periods of SU/SD (see A.II.2. below).	See A.I.2.b. below. See A.I.2.a. below.
	Sulfur dioxide (SO ₂) emissions shall not exceed 5.9 lbs/hr.	See A.I.2.a. below. See A.I.2.a. below.
	Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr.	See A.I.2.c. and A.I.2.d. below. See A.I.2.c. below.

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2. Additional Terms and Conditions

- 2.a The emissions limits based on these applicable rules are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05.
- 2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.c The permittee is subject to the requirements of 40 CFR Part 75 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.
- 2.d In lieu of monitoring the stack gas flow rate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NO_x CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs in conjunction with a fuel flow monitor (in a manner similar to that used for NO_x) to meet these requirements. The relative accuracy requirements of Performance Specification 6 shall apply.
- 2.e The maximum annual operating hours for this emissions unit shall not exceed 4,000 hours, based upon a rolling, 12-month summation of the operating hours.

II. Operational Restrictions

- 1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.
- 2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 37 minutes in duration and shutdowns shall not exceed 25 minutes in duration. Emissions of NO_x during startup and shutdown shall be continuously monitored and recorded by certified CEMs. Emissions of CO during each startup/shutdown cycle shall be recorded and totaled. CO emissions shall not exceed 2,087 lbs per SU/SD cycle. These limits were established during startup testing at the facility.
- 3. Continuous NO_x Monitoring - Certified Systems

Statement of Certification

The permittee shall maintain on-site documentation 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; the accuracy requirements of Specification 6; 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 permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of NO_x is being calculated stoichiometrically. 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

4. Continuous CO Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous CO monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate), and the accuracy requirements of Specification 6. The permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. The letter(s)/document(s) of certification under Part 60 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) 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.

5. Continuous O₂ or CO₂ Monitoring - Certified Systems
Statement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O₂ or CO₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3; 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

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certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) 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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The natural gas usage rate for each month (in standard cubic feet);
 - b. the operating hours of the unit;
 - c. the rolling, 12-month summation of the operating hours, and
 - d. the rolling, 12-month emissions of NO_x, and CO, in tons (i.e., c. x term III.8/2000 + the tons of NO_x and CO as recorded in term II.2., for each pollutant).
2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an

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instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record O₂ or CO₂ from this emissions unit in percent O₂ or CO₂. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O₂ or CO₂ monitoring system including, but not limited to, percent O₂ or CO₂ on an instantaneous (one-minute) basis, emissions of O₂ or CO₂ in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
5. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.
6. The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.4. and fuel gross calorific value as determined in term A.III.5. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.
7. The permittee shall maintain records of the following information for P004:
 - a. The number of startups, and the duration of each startup;
 - b. The number of shutdowns, and the duration of each shutdown.
8. The permittee shall maintain hourly records of the lbs/hr emissions rate for NO_x and CO as obtained from terms III.2. and 3. based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.
9. In accordance with the provisions of 40 CFR Part 60, Subpart GG, the permittee has requested a Custom Fuel Monitoring Schedule(CFMS) for fuel sulfur content. USEPA,

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Region V granted approval of a CFMS in a letter to the permittee, dated June 17, 2003. The permittee shall comply with either the provisions of the CFMS or the schedule(s) contained in Subpart GG. The permittee has implemented a successful CFMS in accordance with the following and issuance of this permit does not require establishment of a new CFMS:

- a. Conduct semi-annual monitoring of fuel sulfur content.
- b. If sulfur analysis indicates non-compliance with limits at 40 CFR Part 60.333, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the excess emissions. The permittee must also begin fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.
- c. If a change in the type of fuel or fuel supply/supplier occurs, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the change(s). The permittee must also begin conducting fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.

IV. 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. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hour limitation. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 75 and any limitations specified in the terms and conditions of this permit. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the

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quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

4. The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) in units of the standard. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

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6. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of continuous O₂ or CO₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 grains per standard cubic foot. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
8. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P004 in accordance with this permit.
9. This emissions unit is subject to the applicable provisions of Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:
 - a. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.
 - b. Emission Limitation:

PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

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

c. Emission Limitation:

PM₁₀ emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

d. Emission Limitation:

NO_x emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs /hr, except during periods of startup/shutdown (SU/SD).

Applicable Compliance Method:

If required, compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated in accordance with Method 7, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for NO_x per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

e. Emission Limitation:

CO emissions shall not exceed 119 lbs/hr, except during periods of SU/SD.

Applicable Compliance Method:

If required, compliance with the allowable lbs/hr emission limitation shall be demonstrated in accordance with Method 10, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated on the record keeping requirements in A.II.2., by the use of the CEM in condition A.III.2., and based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for CO per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

f. Emission Limitation:

SO₂ emissions shall not exceed 5.9 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by the record keeping required in condition A.III.1. and 5. If required, the permittee shall demonstrate compliance by emission testing in accordance with Method 6, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

VOC emissions shall not exceed 3.2 lbs/hr.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with Method 25, 40 CFR Part 60, Appendix A.

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h. Emission Limitation:

Formaldehyde emissions shall not exceed 0.991 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

i. Emission Limitation:

PE shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

j. Emission Limitation:

PM10 shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

k. Emission Limitation:

NO_x emissions shall not exceed 234.0 tons per rolling, 12-month period.

Applicable Compliance Method:

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Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 3. The 12-month rolling emissions associated with start-up and shut-down shall also be included and demonstrated by the use of CEM in condition A.III.3.

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I. Emission Limitation:

CO emissions shall not exceed 619.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 4. The 12-month rolling emissions associated with start-up and shut-down shall be included and determined by the record keeping required in condition A. III. 7. using the lbs/ start-up and shut-down values in condition A.II.2.

m. Emission Limitation:

SO₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

n. Emission Limitation:

VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1.).

. Emission Limitation:

Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days after Final issuance of the Permit To Install.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emissions limitations for PM10 and Formaldehyde.
 - c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for PM10, EPA Methods 201 and 202 of 40 CFR Part 60, Appendix A; and for Formaldehyde, EPA Method 316. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by Ohio EPA or local air agency.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast

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VI. Miscellaneous Requirements

1. The requirements of this PTI supersede the requirements in PTI No. 06-06296.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P004 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	None	None

2. Additional Terms and Conditions

- 2.a** None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install was evaluated based on actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air 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 to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
 TLV (ug/m³): 273 (Converted from the STEL)
 Maximum Hourly Emission Rate (lbs/hr): 4.96*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4.36*
 MAGLC (ug/m³): 9.0

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* This is the combined emission rate and maximum predicted impact modeled for emissions units P001, P002, P003, P004, P005, and P006.

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 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, 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 specified in the above table;
- 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

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- 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.

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IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P005 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	OAC rule 3745-31-05(A)(3)
This PTI is a Chapter 31 Modification of PTI #06-06296 to allow an increase in the hours of operation to 4,000 hours or less per rolling 12-month period.	OAC rule 3745-31-10 through 3745-31-20

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	<u>Applicable Emissions Limitations/Control Measures</u>	
		Formaldehyde emissions shall not exceed 0.991 lb/hr.
	The requirements of this rule also include compliance with the requirements of 40 CFR 60 Subpart GG, 40 CFR Part 75, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-103.	PE shall not exceed 34.60 tons per rolling, 12-month period.
40 CFR part 60, Subpart GG		PM10 emissions shall not exceed 34.60 tons per rolling, 12-month period.
OAC rule 3745-18-06(F)	Visible Particulate emissions (PE) from any stack shall not exceed 10 percent opacity as a six-minute average.	NO _x emissions shall not exceed 234.0 tons per rolling, 12-month period.
OAC Rule 3745-17-11(B)(4)		CO emissions shall not exceed 619.0 tons per rolling, 12-month period.
OAC Rule 3745-17-07(A)	PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	SO ₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.
40 CFR Part 75		VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.
OAC rule 3745-103	PM10 emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.	
OAC rule 3745-31-05(A)(3)	Nitrogen oxides (NO _x) emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs/hr, except during periods of startup/shutdown (SU/SD).	Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period.
	Carbon monoxide (CO) emissions shall not exceed 119 lbs/hr, except during periods of SU/SD (see A.II.2. below).	See A.I.2.e. below.
	Sulfur dioxide (SO ₂) emissions shall not exceed 5.9 lbs/hr.	See A.I.2.b. below.
	Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr.	See A.I.2.a. below.
		See A.I.2.a. below.
		See A.I.2.a. below.
		See A.I.2.c. and A.I.2.d. below.
		See A.I.2.c. below.

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2. Additional Terms and Conditions

- 2.a The emissions limits based on these applicable rules are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05.
- 2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.c The permittee is subject to the requirements of 40 CFR Part 75 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.
- 2.d In lieu of monitoring the stack gas flow rate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NO_x CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs in conjunction with a fuel flow monitor (in a manner similar to that used for NO_x) to meet these requirements. The relative accuracy requirements of Performance Specification 6 shall apply.
- 2.e The maximum annual operating hours for this emissions unit shall not exceed 4,000 hours, based upon a rolling, 12-month summation of the operating hours.

II. Operational Restrictions

- 1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.
- 2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 37 minutes in duration and shutdowns shall not exceed 25 minutes in duration. Emissions of NO_x during startup and shutdown shall be continuously monitored and recorded by certified CEMs. Emissions of CO during each startup/shutdown cycle shall be recorded and totaled. CO emissions shall not exceed 2,087 lbs per SU/SD cycle. These limits were established during startup testing at the facility.
- 3. Continuous NO_x Monitoring - Certified Systems

Statement of Certification

The permittee shall maintain on-site documentation 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; the accuracy requirements of Specification 6; 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 permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of NO_x is being calculated stoichiometrically. 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 Director (the appropriate Ohio EPA District Office or local air agency) 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.

4. Continuous CO Monitoring - Certified SystemsStatement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous CO monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate), and the accuracy requirements of Specification 6. The permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. The letter(s)/document(s) of certification under Part 60 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) 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.

5. Continuous O₂ or CO₂ Monitoring - Certified SystemsStatement of Certification

The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O₂ or CO₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3; 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

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certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) 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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The natural gas usage rate for each month (in standard cubic feet);
 - b. the operating hours of the unit;
 - c. the rolling, 12-month summation of the operating hours, and
 - d. the rolling, 12-month emissions of NO_x, and CO, in tons (i.e., c. x term III.8/2000 + the tons of NO_x and CO as recorded in term II.2., for each pollutant).
2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an

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instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

3. The permittee shall operate and maintain equipment to continuously monitor and record O₂ or CO₂ from this emissions unit in percent O₂ or CO₂. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O₂ or CO₂ monitoring system including, but not limited to, percent O₂ or CO₂ on an instantaneous (one-minute) basis, emissions of O₂ or CO₂ in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
5. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.
6. The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.4. and fuel gross calorific value as determined in term A.III.5. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.
7. The permittee shall maintain records of the following information for P005:
 - a. The number of startups, and the duration of each startup;
 - b. The number of shutdowns, and the duration of each shutdown.
8. The permittee shall maintain hourly records of the lbs/hr emissions rate for NO_x and CO as obtained from terms III.2. and 3. based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.
9. In accordance with the provisions of 40 CFR Part 60, Subpart GG, the permittee has requested a Custom Fuel Monitoring Schedule(CFMS) for fuel sulfur content. USEPA,

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Region V granted approval of a CFMS in a letter to the permittee, dated June 17, 2003. The permittee shall comply with either the provisions of the CFMS or the schedule(s) contained in Subpart GG. The permittee has implemented a successful CFMS in accordance with the following and issuance of this permit does not require establishment of a new CFMS:

- a. Conduct semi-annual monitoring of fuel sulfur content.
- b. If sulfur analysis indicates non-compliance with limits at 40 CFR Part 60.333, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the excess emissions. The permittee must also begin fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.
- c. If a change in the type of fuel or fuel supply/supplier occurs, the permittee must notify USEPA and the Ohio EPA Southeast District Office of the change(s). The permittee must also begin conducting fuel sulfur content monitoring on a weekly basis while the CFMS is being reviewed by USEPA and/or Ohio EPA.

IV. 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. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hour limitation. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in 40 CFR Part 75 and any limitations specified in the terms and conditions of this permit. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the

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quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

4. The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) in units of the standard. These reports shall include all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The permittee shall submit reports documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.

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6. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of continuous O₂ or CO₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 grains per standard cubic foot. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
8. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P005 in accordance with this permit.
9. This emissions unit is subject to the applicable provisions of Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:
 - a. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.
 - b. Emission Limitation:

PE shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

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

c. Emission Limitation:

PM₁₀ emissions shall not exceed 0.00838 lb/MMBTU actual heat input, and 17.3 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

d. Emission Limitation:

NO_x emissions shall not exceed 15 ppmvd at 15% Oxygen and 117 lbs /hr, except during periods of startup/shutdown (SU/SD).

Applicable Compliance Method:

If required, compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated in accordance with Method 7, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for NO_x per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

e. Emission Limitation:

CO emissions shall not exceed 119 lbs/hr, except during periods of SU/SD.

Applicable Compliance Method:

If required, compliance with the allowable lbs/hr emission limitation shall be demonstrated in accordance with Method 10, 40 CFR Part 60, Appendix A. Continual compliance with those limitations shall be demonstrated on the record keeping requirements in A.II.2., by the use of the CEM in condition A.III.2., and based upon an hourly averaging period as allowed in 40 CFR Part 60 or as an alternative method, the permittee may calculate the mass emission data for CO per 40 CFR Part 75, using heat input data derived from certified fuel flow monitor measurements.

f. Emission Limitation:

SO₂ emissions shall not exceed 5.9 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by the record keeping required in condition A.III.1. and 5. If required, the permittee shall demonstrate compliance by emission testing in accordance with Method 6, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

VOC emissions shall not exceed 3.2 lbs/hr.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with Method 25, 40 CFR Part 60, Appendix A.

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h. Emission Limitation:

Formaldehyde emissions shall not exceed 0.991 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with the requirements specified in term and condition A.V.2.

i. Emission Limitation:

PE shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

j. Emission Limitation:

PM10 shall not exceed 34.60 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the 12-month period (from term and condition A. III.1.).

k. Emission Limitation:

NO_x emissions shall not exceed 234.0 tons per rolling, 12-month period.

Applicable Compliance Method:

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Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 3. The 12-month rolling emissions associated with start-up and shut-down shall also be included and demonstrated by the use of CEM in condition A.III.3.

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I. Emission Limitation:

CO emissions shall not exceed 619.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.1., 2., and 4. The 12-month rolling emissions associated with start-up and shut-down shall be included and determined by the record keeping required in condition A. III. 7. using the lbs/ start-up and shut-down values in condition A.II.2.

m. Emission Limitation:

SO₂ emissions shall not exceed 11.80 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

n. Emission Limitation:

VOC emissions shall not exceed 6.40 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1.).

o. Emission Limitation:

Formaldehyde emissions shall not exceed 1.98 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated by multiplying the emission factor (lb(s)/cubic foot of fuel fired) established during the most recent emission tests that demonstrated that the emissions unit was in compliance by the actual quantity of fuel fired in this emissions unit during the calendar year (from term and condition A. III.1).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days after Final issuance of the Permit To Install.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emissions limitations for PM10 and Formaldehyde.
 - c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for PM10, EPA Methods 201 and 202 of 40 CFR Part 60, Appendix A; and for Formaldehyde, EPA Method 316. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by Ohio EPA or local air agency.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast

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VI. Miscellaneous Requirements

1. The requirements of this PTI supersede the requirements in PTI No. 06-06296.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - Siemens Westinghouse Power Corp. W501F, natural gas fired turbine with dry low-NOx combusters, operating in simple cycle mode.	None	None

2. Additional Terms and Conditions

- 2.a** None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install was evaluated based on actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air 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 to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
 TLV (ug/m³): 273 (Converted from the STEL)
 Maximum Hourly Emission Rate (lbs/hr): 4.96*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4.36*
 MAGLC (ug/m³): 9.0

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* This is the combined emission rate and maximum predicted impact modeled for emissions units P001, P002, P003, P004, P005, and P006.

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 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, 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 specified in the above table;
- 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

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- 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.

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IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P006 -16.0 MMBTU/hr natural gas fired heater with dual burners.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-10(B)(1)
		OAC rule 3745-18-06(D)
		40CFR 60, Subpart Dc
		OAC rule 3745-23-06
	OAC rule 3745-17-07(A)(1)	

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Applicable Emissions
Limitations/Control
Measures

Nitrogen oxide (NO_x) emissions shall not exceed 0.10 lb/MMBTU actual heat input, 1.60 lbs/hr, and 7.01 tons per year.

Carbon monoxide (CO) emissions shall not exceed 0.125 lb/MMBTU actual heat input, 2.0 lbs/hr, and 8.76 tons per year.

Particulate emissions (PE) shall not exceed 0.119 lb/hr and 0.52 tons per year.

Sulfur dioxide (SO₂) emissions shall not exceed 0.01 lb/hr and 0.04 tons per year.

Volatile Organic Compound (VOC) emissions shall not exceed 1.30 lbs/hr and 5.69 tons per year.

Visible particulate emissions from the boiler stack shall not exceed 20% opacity as a six-minute average.

The requirements of this

rule also include compliance with the requirements of OAC rule 3745-23-06.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See A.I.2.a below.

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2. Additional Terms and Conditions

- 2.a** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06 by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-07747.

II. Operational Restrictions

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

III. Monitoring and/or Recordkeeping Requirements

1. Pursuant to 40 CFR Part 60 Subpart Dc, the permittee shall record and maintain records of the amount of natural gas combusted during each day. These records shall be maintained by the permittee for a period of two years following the date of such record.
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 maintain monthly records of the following information for this emissions unit:
- a. The natural gas usage rate for each month (in standard cubic feet);
 - b. the operating hours of the unit;

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the emissions unit. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports that identify each day during which records were not maintained on the amount of natural gas combusted in the emissions unit. These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions of this permit.
3. The following source is subject to the applicable provisions of the New Source

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Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P006	16.0 MMBTU natural gas fired fuel line heater	Subpart Dc

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

- a. Emission Limitation:

Nitrogen oxide (NO_x) emissions shall not exceed 0.10 lb/MMBTU actual heat input, 1.60 lbs/hr, and 7.01 tons per year.

Applicable Compliance Method:

Compliance with the pounds per hour emission limit shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (16.0 MMBTU/hour) by 0.10 lb NO_x per MMBTU natural gas burned (emission factor from AP-42, Table 1.4-1, July, 1998).

If required, the permittee shall demonstrate compliance with the allowable outlet concentration, and the lbs/hr emission limitations in accordance with the methods and procedures specified in Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

The tons per year emission limitation was developed by multiplying the hourly allowable by the maximum annual hours of operation (8,760 hour/year), and then dividing by 2,000 lb/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

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b. Emission Limitation:

CO emissions shall not exceed 0.125 lb/MMBTU actual heat input, 2.0 lbs/hr, and 8.76 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (16.0 BTU/hr) by 0.125 lb/CO per MMBTU natural gas burned (emission factor supplied by the permittee).

If required, the permittee shall demonstrate compliance with the allowable outlet concentration, and the lbs/hr emission limitations in accordance with the methods and procedures specified in Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

The tons per year emission limitation was developed by multiplying the hourly allowable by the maximum annual hours of operation (8,760 hour/year), and then dividing by 2,000 lb/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

PE shall not exceed 0.119 lb/hr and 0.52 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (16.0 MMBTU/hour) by 0.00744 lb PE per MMBTU natural gas burned (emission factor from AP-42, Table 1.4-2, July, 1998).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1-4 and 5 of 40 CFR Part 60, Appendix A.

The tons per year emission limitation was developed by multiplying the hourly allowable by the maximum annual hours of operation (8,760 hour/year), and then dividing by 2,000 lb/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

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d. Emission Limitation:

SO₂ emissions shall not exceed 0.01 lb/hr and 0.04 tons per year.

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Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (16.0 MMBTU/hour) by 0.000588 lb SO₂ per MMBTU natural gas burned (emission factor from AP-42, Table 1.4-2, July, 1998).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.

The tons per year emission limitation was developed by multiplying the hourly allowable by the maximum annual hours of operation (8,760 hour/year), and then dividing by 2,000 lb/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

VOC emissions shall not exceed 1.30 lbs/hr and 5.69 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (16.0 MMBTU/hour) by 0.00539 lb VOC per MMBTU natural gas burned (emission factor from AP-42, Table 1.4-2, July, 1998).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1-4 and 25A of 40 CFR Part 60, Appendix A.

The tons per year emission limitation was developed by multiplying the hourly allowable by the maximum annual hours of operation (8,760 hour/year), and then dividing by 2,000 lb/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

Visible PE from the boiler stack shall not exceed 20% opacity as a six-minute average.

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Applicable compliance Method:

If required, compliance with the visible emissions limit shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03 (B)(1). No visible emissions testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to rule 3745-15-04 (A).

VI. Miscellaneous Requirements

1. The requirements of this PTI supersede the requirements in PTI No. 06-06296.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P006 - 16.0 MMBTU/hr natural gas fired heater with dual burners.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install was evaluated based on actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air 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 to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde

TLV (ug/m³): 273 (Converted from the STEL)

Maximum Hourly Emission Rate (lbs/hr): 4.96*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4.36*

MAGLC (ug/m³): 9.0

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* This is the combined emission rate and maximum predicted impact modeled for emissions units P001, P002, P003, P004, P005, and P006.

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 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, 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 specified in the above table;
- 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

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- 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.

IV. Reporting Requirements

None.

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V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.