



State of Ohio Environmental Protection Agency

Street Address:

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P.O. Box 1049
Columbus, OH 43216-1049

10/29/99

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

03-06-01-0010
CITY OF ST. MARYS POWER PLANT
JERRY L WOLFE
101 EAST SPRING STREET
ST. MARYS, OH 45885-2395

Dear JERRY L WOLFE:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Northwest District Office within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions or comments concerning this draft Title V permit, please contact Northwest District Office.

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA (electronic)
Jim Orlemann, DAPC Engineering
Michael Ahern, DAPC PMU
Northwest District Office
Indiana



Ohio EPA

State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 10/29/99

Effective Date:

Expiration Date:

The duration of this permit will be five years.

This document constitutes issuance to:

CITY OF ST. MARYS POWER PLANT
335 NORTH CHESTNUT STREET
ST. MARYS, OH 45885-1705

of a Title V permit for Facility ID: 03-06-01-0010

Emissions Unit ID (Company ID)/
Emissions Unit Activity Description:

B001 (UNIT 6)

This unit drives a steam turbine-generator set rated at 10,000 KW (nameplate).

B002 (UNIT 5)

This unit drives a steam turbine-generator set rated at 6,000 KW (nameplate).

B004 (UNIT 7)

This unit drives a generator rated at 14,000 KW (nameplate).

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

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

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

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 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 promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., 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.) See B.6 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 to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. 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. 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.

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 submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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 applicable, the permittee shall 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”); and, pursuant to 40 CFR 68.215(a), the permittee shall submit either of the following:

- a. a compliance plan for meeting the requirements of 40 CFR Part 68 by the date specified in 40 CFR 68.10(a) and OAC 3745-104-05(A); or
- b. as part of the compliance certification submitted under 40 CFR 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 CFR Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

4. Title IV Provisions

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

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 reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening 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.

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.
 - 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 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.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency and to the Administrator of U.S. EPA in the following manner in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

13. Permit Shield

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

16. Off Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

18. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

B. State Only Enforceable Section

1. Permit to Install Requirement

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

2. Reporting Requirements Related to Monitoring and Recordkeeping 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 quarterly, i.e., 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. 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 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. 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 emissions unit(s) that is (are) served by such control system(s).

4. 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.

5. 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.

6. 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)

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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

1. The following insignificant emissions unit(s) are located at this facility:

T001 (Fuel Tank 1)

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: UNIT 6 (B001)

Activity Description: This unit drives a steam turbine-generator set rated at 10,000 KW (nameplate).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
128 mmBtu/hr natural gas (NG), no. 2 fuel oil and coal-fired boiler (unit no. 6) w/ multiclone and electrostatic precipitator (ESP)	OAC rule 3745-17-07(A)	20 percent opacity, as a six-minute average, except as provided by rule
	OAC rule 3745-17-10(C)(2)	when burning coal, 0.28 pound of particulate emissions (PE) per mmBtu of actual heat input
	OAC rule 3745-18-12(B)	See A.I.2.a.
	OAC rule 3745-31-05 (PTI 03-1211)	5.9 pounds of sulfur dioxide (SO ₂) per mmBtu of actual heat input
	OAC rule 3745-17-10(B)(1)	See A.I.2.b - A.I.2.g. when burning only natural gas or a combination of no. 2 fuel oil and natural gas, 0.020 lb PE per mmBtu of actual heat input

2. Additional Terms and Conditions

- 2.a** The emission limitation established by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05.
- 2.b** The PE from this emissions unit shall not exceed 110.7 tons/year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.c** The emissions of SO₂ from this emissions unit shall not exceed 2766.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.d** The NO_x emissions from this emissions unit shall not exceed 285.0 tons/year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.e** The PE from emissions units B001 and B002 combined shall not exceed 114.3 tons/year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.f** The SO₂ emissions from emissions units B001 and B002 combined shall not exceed 2805.0 tons/year, based upon a rolling, 12-month summation of the monthly emissions.

2. Additional Terms and Conditions (continued)

- 2.g** The NO_x emissions from emissions units B001 and B002 combined shall not exceed 302.0 tons/year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.h** PTI 03-1211 established a PE restriction for the existing boiler, unit #6, based on a heat input rating of 160 mmBtu/hr. However, this heat input was incorrect. The actual maximum heat input rate for unit #6 is 128 mmBtu/hr. (Unit #6 has not been modified but was originally incorrectly rated.) The corrected allowable PE limit based on OAC rule 3745-17-10 is 0.28 lb PE/mmBtu of actual heat input.

II. Operational Restrictions

1. The permittee shall operate the ESP during any operation of this emissions unit, except during periods of start-up and shutdown that are exempted pursuant to OAC rules 3745-17-07(A)(3)(a)(i) and 3745-17-07(A)(3)(b)(i), or during malfunctions that are exempted pursuant to OAC rule 3745-17-07(A)(3)(c).
2. The quality of the coal burned in this emissions unit shall have a sulfur content that is sufficient to comply with the allowable SO₂ emission limitation specified in Section A.I above.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the visible particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall collect representative grab samples of the coal burned in this emissions unit on a frequency of two days per week. Each sample shall be collected from the coal hopper. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected during that calendar month shall be combined into one composite sample.

Each monthly composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content, and heat content shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Northwest District Office.

The permittee shall maintain monthly records of the total quantity of coal burned, the results of the monthly analyses for ash content, sulfur content, and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

III. Monitoring and/or Record Keeping Requirements (continued)

- 3.** For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the oil for those loads may be represented by a single batch analysis from the supplier. Also, the permittee shall maintain monthly records of the calculated sulfur dioxide emission rate based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all shipments of oil during a calendar month.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

- 4.** The permittee shall record and maintain each month the following information for this emissions unit:
- 4.a** the total quantity of no. 2 fuel oil burned, in gallons;
 - 4.b** the total quantity of natural gas burned, in cubic feet;
 - 4.c** the total quantity of coal burned, in tons;

III. Monitoring and/or Record Keeping Requirements (continued)

4.d the total particulate emission rate, in tons, calculated as follows:

i. the monthly PE resulting from the combustion of coal:

$$E_c = (efc \times tc \times hc) / 2000$$

where:

E_c = particulate emissions, in tons per month

efc = the particulate emissions rate (lbs PE/mmBtu), based on the results of the most recent stack testing

tc = total amount of coal combusted (tons/month)

hc = the average heat content of the coal combusted during the month (mmBtu/ton), based on the results of the coal analysis required in A. III.2

ii. the monthly PE resulting from the combustion of oil:

$$E_o = (efo \times to) / 2000$$

where:

E_o = particulate emissions, in tons per month

efo = an emission factor of 2.0 lbs PE/1000 gallons of no. 2 fuel oil, based on AP-42 section 1.3-10, 10/96, Table 1.3-1

to = total amount of no. 2 fuel oil combusted (gallons/month)

iii. the monthly PE resulting from the combustion of natural gas:

$$E_g = efg \times tg \times 1 \text{ ton} / 2000 \text{ lbs}$$

where:

E_g = particulate emissions, in tons per month

efg = an emission factor of 1.9 lbs PE (filtrable)/mmcu.ft., based upon AP-42, section 1.4-6, Table 1.4-2, revised 7/98

tg = total amount of natural gas combusted (mmcu.ft./month)

iv. the total PE (i + ii + iii), in tons;

4.e the rolling, 12-month summation of the total particulate emissions, in tons;

III. Monitoring and/or Record Keeping Requirements (continued)

4.f the total sulfur dioxide emission rate, in tons, calculated as follows:

i. the monthly sulfur dioxide emissions resulting from the combustion of coal:

$$Esc = (efsc \times tsc \times hsc)/2000$$

where:

Esc = SO₂ emissions, in tons per month

efsc = the sulfur dioxide emissions rate (lbs SO₂/mmBtu), based on the results of the coal analysis required in A. III. 2

tsc = total amount of coal combusted (tons/month)

hsc = the average heat content of the coal combusted during the month (mmBtu/ton), based on the results of the coal analysis required in A.III.2

ii. the monthly sulfur dioxide emissions resulting from the combustion of oil:

$$Eso = (efso \times tso)/2000$$

where:

Eso = SO₂ emissions, in tons per month

efso = an emission factor of 142S lbs SO₂/1000 gallons of no. 2 fuel oil, based on AP-42 section 1.3-10, 10/96, Table 1.3-1, where S is the weight % sulfur in the oil

tso = total amount of oil combusted during the month (gallons/month)

iii. the monthly sulfur dioxide emissions resulting from the combustion of natural gas:

$$Esn = (efsn \times tsn)/2000$$

where:

Esn = SO₂ emissions, in tons per month

efsn = an emission factor of 0.6 lb SO₂/mmcu.ft., based on AP-42 section 1.4-6, 3/98, Table 1.4-2

tsn = total amount of natural gas combusted (mmcu.ft/month)

iv. the total sulfur dioxide emissions (i + ii + iii), in tons;

4.g the rolling, 12-month summation of the sulfur dioxide emissions, in tons;

III. Monitoring and/or Record Keeping Requirements (continued)

4.h the total NO_x emission rate, in tons, calculated as follows:

i. the monthly nitrogen oxides emissions resulting from combustion of coal:

$$Enc = (efnc \times tnc \times hnc) / 2000$$

where:

Enc = NO_x emissions, in tons per month

efnc = the NO_x emissions rate (lbs NO_x/mmBtu), based on the results of the most recent stack testing

tnc = total amount of coal combusted during the month (tons/month)

hnc = the average heat content of the coal combusted during the month (mmBtu/ton), based on the results of the coal analysis required in A.III.2

ii. the monthly NO_x emissions resulting from the combustion of oil:

$$Eno = (efno \times tno) / 2000$$

where:

Eno = NO_x emissions, in tons per month

efno = an emission factor of 20 lbs NO_x/1000 gallons of no. 2 fuel oil, based on AP-42, section 1.3-10, 10/96, Table 1.3-1

tno = total amount of oil combusted during the month (gallons/month)

iii. the monthly NO_x emissions resulting from the combustion of natural gas:

$$Eng = (efng \times tng) / 2000$$

where:

Eng = NO_x emissions, in tons per month

efng = an emission factor of 2.2 lbs NO_x/mmcu. ft., based on AP-42, section 1.4-6, 3/98, Table 1.4-2

tng = total amount of natural gas combusted during the month (mmcu. ft./month)

iv. the total NO_x emissions (i + ii + iii), in tons; and

4.i the rolling, 12-month summation of the total NO_x emissions, in tons.

5. The permittee shall record and maintain each month the following information for emissions units B001 and B002 combined:

a. the rolling, 12-month summation of the total particulate emissions, in tons;

b. the rolling, 12-month summation of the total sulfur dioxide emissions, in tons; and

c. the rolling, 12-month summation of the total NO_x emissions, in tons.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Northwest District Office all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Northwest District Office documenting any continuous opacity 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 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 quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

2. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation (lb/mmBtu), as shown by the calculated sulfur dioxide emission rates from Sections A.III.2 and A.III.3 above. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days after the deviation occurs.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month SO₂ emission limitation of 2,766 tons.
4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month PE limitation of 110.7 tons.
5. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month NO_x emission limitation of 285 tons.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month SO₂ emission limitation of 2805 tons.
7. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month PE limitation of 114.3 tons.
8. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month NO_x emission limitation of 302 tons.
9. The permittee shall submit annual reports which summarize the following for this emissions unit:
 - a. the total PE, in tons;
 - b. the total SO₂ emissions, in tons; and
 - c. the total NO_x emissions, in tons.

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. 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 3 months after issuance of this pemrit and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and nitrogen oxides.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rates:

Particulates: Method 5 of 40 CFR Part 60, Appendix A.

NOx: Method 7 of 40 CFR Part 60, Appendix A

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. 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, Northwest 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, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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.

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, Northwest 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, Northwest District Office.

3. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):

- 3.a Emission Limitation:
20% opacity, as a six-minute average, except as provided by rule

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to OAC rule 3745-17-03(B)(1).

- 3.b Emission Limitation:
0.28 pound of PE per mmBtu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitation above based upon the results of the stack testing required in section V.1 of this permit.

- 3.c Emission Limitation:
5.9 pounds of SO₂ per mmBtu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitation above through the recordkeeping requirements in section A.III of this permit.

V. Testing Requirements (continued)

3.d Emission Limitation:

110.7 tons of PE per year, based upon a rolling, 12-month summation of the monthly PE

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.e Emission Limitation:

2766.0 tons of SO₂ per year, based upon a rolling, 12-month summation of the monthly SO₂ emissions

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.f Emission Limitation:

285.0 tons of NO_x per year, based upon a rolling, 12-month summation of the monthly NO_x emissions

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.g Emission Limitation:

114.3 tons of PE per year, based upon a rolling, 12-month summation of the monthly PE

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.h Emission Limitation:

2805.0 tons of SO₂ per year, based upon a rolling, 12-month summation of the monthly SO₂ emissions

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.i Emission Limitation:

302.0 tons of NO_x per year, based upon a rolling, 12-month summation of the monthly NO_x emissions

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.j Emission Limitation:

0.020 pound of PE per mmBtu of actual heat input

Applicable Compliance Method:

When combusting natural gas, compliance shall be determined by multiplying the particulate (filtrable) emission factor of 1.9 pounds per million cubic feet of natural gas combusted by the emissions unit's maximum hourly fuel consumption rate (2083 cu. ft./hr) and dividing by the emissions unit's maximum heat input capacity (128 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2.

When combusting fuel oil, compliance shall be determined by multiplying the particulate emission factor of 2.0 pounds per 1000 gallons of no. 2 fuel oil combusted by the emissions unit's maximum hourly fuel consumption rate (550 gallons/hr) and dividing by the emissions unit's maximum heat input capacity (128 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(9).

Facility Name: **CITY OF ST. MARYS POWER PLANT**
Facility ID: **03-06-01-0010**
Emissions Unit: **UNIT 6 (B001)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
128 mmBtu/hr natural gas (NG), no. 2 fuel oil and coal-fired boiler (unit no. 6) w/ multiclone and electrostatic precipitator (ESP)	none	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: UNIT 5 (B002)

Activity Description: This unit drives a steam turbine-generator set rated at 6,000 KW (nameplate).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
83 mmBtu/hr coal-fired boiler (boiler no. 5) w/ multiclone and electrostatic precipitator (ESP)	OAC rule 3745-17-07(A)	20 percent opacity, as a six-minute average, except as provided by rule
	OAC rule 3745-17-10(C)(2)	0.24 pound of particulate emissions (PE) per mmBtu of actual heat input (for B001 and B002 combined)
	OAC rule 3745-31-05 (PTI 03-1211)	The sulfur dioxide limitation (SO ₂) established pursuant to this PTI is less stringent than the limitation from OAC rule 3745-18-12.
	OAC rule 3745-18-12(A)	See A.I.2.a - c. 2.6 pounds SO ₂ /mmBtu of actual heat input

2. Additional Terms and Conditions

- 2.a** The PE from emissions units B001 and B002 combined shall not exceed 114.3 tons/year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.b** The SO₂ emissions from emissions units B001 and B002 combined shall not exceed 2805.0 tons/year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.c** The NO_x emissions from emissions units B001 and B002 combined shall not exceed 302.0 tons/year, based upon a rolling, 12-month summation of the monthly emissions.
- 2.d** PTI 03-1211 established a PE restriction for unit #4 (new - 47 mmBtu/hr), unit #5 (new - 83 mmBtu/hr), and unit #6 ((128 mmBtu/hr), based on a heat input rating of 290 mmBtu/hr. However, this heat input was incorrect. The current actual maximum heat input for units # 5 and #6 is 211 mmBtu/hr (unit #4 has been removed). The corrected allowable PE limit based on OAC rule 3745-17-10 is 0.24 lb/mmBtu of actual heat input.

II. Operational Restrictions

1. The permittee shall operate the ESP during any operation of this emissions unit, except during periods of start-up and shutdown that are exempted pursuant to OAC rules 3745-17-07(A)(3)(a)(i) and 3745-17-07(A)(3)(b)(i), or during malfunctions that are exempted pursuant to OAC rule 3745-17-07(A)(3)(c).

II. Operational Restrictions (continued)

2. The quality of the coal burned in this emissions unit shall have a sulfur content that is sufficient to comply with the allowable SO₂ emission limitation specified in Section A.I above.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the visible particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall collect representative grab samples of the coal burned in this emissions unit on a frequency of two days per week. Each sample shall be collected from the coal hopper. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected during that calendar month shall be combined into one composite sample.

Each monthly composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content, and heat content shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isothermal Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

The permittee shall maintain monthly records of the total quantity of coal burned, the results of the monthly analyses for ash content, sulfur content, and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

3. The permittee shall record and maintain each month the following information for this emissions unit:
 - 3.a the NO_x emission rate, in tons, calculated as follows:

$$Enc = (efnc \times tnc \times hnc) / 2000$$

where:

Enc = NO_x emissions, in tons per month

efnc = the NO_x emissions rate (lbs NO_x/mmBtu), based on the results of the most recent stack testing

tnc = total amount of coal combusted during the month (tons/month)

hnc = the average heat content of the coal combusted during the month (mmBtu/ton), based on the results of the coal analysis required in A.III.2;

III. Monitoring and/or Record Keeping Requirements (continued)

- 3.b** the particulate emission rate, in tons, calculated as follows:

$$E_c = (efc \times tc \times hc) / 2000$$

where:

E_c = particulate emissions, in tons per month

efc = the particulate emissions rate (lbs PE/mmBtu), based on the results of the most recent stack testing

tc = total amount of coal combusted (tons/month)

hc = the average heat content of the coal combusted during the month (mmBtu/ton), based on the results of the coal analysis required in A.III.2;

- 3.c** the sulfur dioxide emission rate, in tons, calculated as follows:

$$E_{sc} = (efsc \times tsc \times hsc) / 2000$$

where:

E_{sc} = SO₂ emissions, in tons per month

$efsc$ = the sulfur dioxide emissions rate (lbs SO₂/mmBtu), based on the results of the coal analysis required in A.III.2

tsc = total amount of coal combusted (tons/month)

hsc = the average heat content of the coal combusted during the month (mmBtu/ton), based on the results of the coal analysis required in A.III.2;

- 3.d** the rolling, 12-month summation of particulate emissions, in tons;
- 3.e** the rolling, 12-month summation of the SO₂ emissions, in tons; and
- 3.f** the rolling, 12-month summation of the NO_x emissions, in tons.
- 4.** The permittee shall record and maintain each month the following information for emissions units B001 and B002 combined:
- the rolling, 12-month summation of the total particulate emissions, in tons;
 - the rolling, 12-month summation of the total SO₂ emissions, in tons; and
 - the rolling, 12-month summation of the total NO_x emissions, in tons.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Northwest District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Northwest District Office documenting any continuous opacity 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 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 quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

2. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation (lb/mmBtu), as shown by the calculated sulfur dioxide emission rates from Section A.III.2 above. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days after the deviation occurs.
3. The permittee shall submit annual reports which summarize the following for this emissions unit:
 - a. the total PE, in tons;
 - b. the total SO₂ emissions, in tons; and
 - c. the total NO_x emissions, in tons.

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month NO_x emission limitation of 302 tons.
5. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month PE limitation of 114.3 tons.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month SO₂ emission limitation of 2805 tons.

V. Testing Requirements

1. 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 3 months after issuance of this permit and within 6 months prior to permit renewal.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and NO_x.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rates:

Particulates: Method 5 of 40 CFR Part 60, Appendix A.

NO_x: Method 7 of 40 CFR Part 60, Appendix A

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

2. 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, Northwest 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, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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.

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, Northwest 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, Northwest District Office.

3. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

3.a Emission Limitation:
0.24 pound of PE per mmBtu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitation above based upon the results of the stack testing required in section V.1 of this permit.

3.b Emission Limitation:
20% opacity, as a six-minute average, except as provided by rule

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to OAC rule 3745-17-03(B)(1).

3.c Emission Limitation:
2.6 pounds of SO₂ per mmBtu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitation above through the recordkeeping requirements in section A.III of this permit.

V. Testing Requirements (continued)

3.d Emission Limitation:
114.3 tons of PE per year, based upon a rolling, 12-month summation of the monthly PE

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.e Emission Limitation:
2805 tons of SO₂ per year, based upon a rolling, 12-month summation of the monthly SO₂ emissions

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

3.f Emission Limitation:
302 tons of NO_x per year, based upon a rolling, 12-month summation of the monthly NO_x emissions

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation through the recordkeeping requirements in section A.III of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
83 mmBtu/hr coal-fired boiler (boiler no. 5) w/ multiclone and electrostatic precipitator (ESP)	OAC rule 3745-31-05 (PTI 03-1211)	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: UNIT 7 (B004)

Activity Description: This unit drives a generator rated at 14,000 KW (nameplate).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
189 mmBtu/hr #2 oil-fired emergency combustion turbine	OAC rule 3745-17-07(A)	20 percent opacity, as a six-minute average, except as provided by rule
	OAC rule 3745-17-11(B)(4)	0.040 pound particulate emissions(PE) per mmBtu of actual heat input
	OAC rule 3745-18-06(F)	0.50 pound of sulfur dioxide (SO2) per mmBtu of actual heat input
	OAC rule 3745-31-05 (PTI 03-5615)	108.0 pounds NOx/hour 37.40 tons NOx per year, based upon a rolling, 12-month period
	40 CFR 60 NSPS Subpart GG	9.49 tons SO2 per year, based upon a rolling, 12-month period See A.I.2.a.

2. Additional Terms and Conditions

- 2.a The permittee shall comply with one of the following:
 - i. the exhaust gases shall not contain sulfur dioxide in excess of 0.015 percent (by volume) at 15 percent oxygen and on a dry basis; or
 - ii. the oil burned in this emissions unit shall not contain sulfur in excess of 0.08 percent (by weight) on an "as recieved" basis.

II. Operational Restrictions

1. The maximum number of hours of operation for this emissions unit shall not exceed 730 hours/year, based upon a rolling, 12-month period.
2. The permittee shall burn only number two fuel oil in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record and maintain the following information each month for this emissions unit:
 - a. the number of hours the emissions unit was in operation;
 - b. the number of gallons of no. 2 fuel oil consumed;
 - c. the NO_x emissions, in tons, calculated as follows:

$$E = ER \times h / 2000$$

where:

E = NO_x emissions, in tons

ER = NO_x emission rate (lbs NO_x/hr), based upon the results of the stack testing required in section V.1

h = actual number of hours of operation (from section 1.a above);

- d. the SO₂ emissions, in tons, calculated as follows:

$$E = (1.01S \times h \times g) / 2000$$

where:

E = SO₂ emissions, in tons

S = sulfur content (%), based upon the results of fuel analysis required in section A.III of this permit

h = average heat content of the fuel received, in mmBtu/gallon, from fuel analysis

g = actual fuel consumption (gallons) ;

- e. the rolling, 12-month summation of the sulfur dioxide emissions, in tons;
 - f. the rolling, 12-month summation of NO_x emissions, in tons; and
 - g. the rolling, 12-month summation of the number of hours of operation.
2. For each day during which the permittee burns a fuel other than number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emissions rate (in lbs/mmBtu). (The sulfur dioxide emissions rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the oil for those loads may be represented by a single batch analysis from the supplier. Also, the permittee shall maintain monthly records of the calculated sulfur dioxide emission rate based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all shipments of oil during a calendar month.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all monthly records that show: (1) the sulfur content of the fuel oil being burned in the combustion turbine exceeded 0.08 percent by weight, and/or (2) the allowable sulfur dioxide limitation of .50 lb/mmBtu was exceeded.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitation on the number of hours of operation.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month NOx emission limitation of 37.4 tons.
5. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month SO2 emission limitation of 9.49 tons.

V. Testing Requirements

1. 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 to demonstrate compliance with the allowable mass emission rate for nitrogen oxides.
 - b. the emission testing shall be conducted approximately within 3 months after permit issuance and within 6 months prior to permit renewal.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
Method 7 of 40 CFR Part 60, Appendix A.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.
2. 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, Northwest 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, Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest 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.

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, Northwest 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, Northwest District Office.

3. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 3.a Emission Limitation:
20 percent opacity, as a six-minute average, except as provided by rule

Applicable Compliance Method:
OAC rule 3745-17-03(B)(1)

V. Testing Requirements (continued)

- 3.b** Emission Limitation:
0.040 pound PE per mmBtu of actual heat input

Applicable Compliance Method:

Compliance shall be determined by multiplying the emission factor for PE of 0.6 pound per 1000 gallons of no. 2 fuel oil by the emissions unit's maximum fuel consumption rate (1200 gallons/hr) and dividing by the emissions unit's heat input capacity (189 mmBtu/hour). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2, dated 5/98.

If required, the permittee shall demonstrate compliance with the above emissions limit pursuant to OAC rule 3745-17-03(B)(10).

- 3.c** Emission Limitation:
0.50 pound of SO₂ per mmBtu of actual heat input

Applicable Compliance Method:

Except as provided below, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

If the sulfur content of each shipment of oil received during a calendar month does not comply with the allowable emission limitation on an "as-received" basis, compliance with the allowable sulfur dioxide emission limitation shall be based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all of the shipments of oil during the calendar month.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6.

- 3.d** Emission Limitation:
108 pounds NO_x per hour and 37.4 tons NO_x per year

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitation above based upon the results of the stack testing required in section V.1 of this permit.

Compliance with the annual limit of 37.4 tons NO_x shall be demonstrated based upon the record keeping required in section A.III of this permit.

- 3.e** Emission Limitation:
9.49 tons SO₂ per year

Applicable Compliance Method:

Compliance with the annual limit of 9.49 tons SO₂ shall be demonstrated based upon the record keeping required in section A.III of this permit.

- 3.f** Emission Limitation:
Exhaust gases shall not contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the above limit based upon USEPA Method 20 to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxides and 21 percent oxygen. The NO_x emissions shall be determined at each of the load conditions specified in paragraph (c)(2) of 40 CFR Part 60, subpart GG, section 60.335.

Facility Name: **CITY OF ST. MARYS POWER PLANT**

Facility ID: **03-06-01-0010**

Emissions Unit: **UNIT 7 (B004)**

V. Testing Requirements (continued)

3.g Emission Limitation:
The quality of the oil burned in this emissions unit shall not contain sulfur in excess of 0.08 percent by weight on an "as recieved" basis.

Applicable Compliance Method:
The record keeping requirements in section A.III of this permit shall be used to demonstrate compliance with the above limitation.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
189 mmBtu/hr #2 fuel oil-fired gas turbine	OAC rule 3745-31-05 (PTI 03-5615)	0.020 pound PE per mmBtu of actual heat input 1.38 tons PE per year 0.61 ton organic compound (OC) per year 2.98 tons carbon monoxide (CO) per year

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:
0.020 pound PE per mmBtu of actual heat input

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emission factor of 0.6 pound PE per 1000 gallons of no. 2 fuel oil by the emissions unit's maximum hourly fuel consumption rate (1200 gallons/hr) and dividing by the hourly heat input capacity (189 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2, dated 5/98.

If required, the permittee shall show compliance with the above emission limit pursuant to Method 5 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

- 1.b** Emission Limitation:
1.38 tons PE per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emission factor of 0.6 pound PE per 1000 gallons of no. 2 fuel oil by the emissions unit's maximum fuel consumption (1200 gallons/hr) and multiplying by the actual annual number of hours of operation (from section A.III of this permit) and dividing by 2000.

- 1.c** Emission Limitation:
0.61 ton OC per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the organic compound emission factor of 0.51 pound OC per 1000 gallons of no. 2 fuel oil by the emissions unit's maximum fuel consumption (1200 gallons/hr) and multiplying by the actual annual number of hours of operation (from section A.III of this permit) and dividing by 2000.

This emission factor (0.51 lb OC/1000 gallons) is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2, dated 5/98.

If required, the permittee shall demonstrate compliance with the above emission limit pursuant to Method 18, 25 or 25A of 40 CFR Part 60, Appendix A.

- 1.d** Emission Limitation:
2.98 tons CO per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the carbon monoxide emission factor of 2.0 pounds CO per 1000 gallons of no. 2 fuel oil by the emissions unit's maximum fuel consumption rate (1200 gallons/hr) and multiplying by the actual annual number of hours of operation (from section A.III of this permit) and dividing by 2000.

This emission factor (2.0 pounds CO per 1000 gallons of no.2 fuel oil) is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-1, dated 5/98.

VI. Miscellaneous Requirements

None

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