State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
SUMMIT COUNTY

Street Address:
122 S. Front Street
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329
Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 16-02367
Fac ID: 1677020156
DATE: 11/26/2004

The Babcock and Wilcox Co
Lindsey Larson
1562 Beeson St
Alliance, OH 44601-2195

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

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

cc: **USEPA** **ARAQMD**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 11/26/2004**
Terms and Conditions	**Effective Date: 11/26/2004**

FINAL PERMIT TO INSTALL 16-02367

Application Number:	16-02367
Facility ID:	1677020156
Permit Fee:	**$200**
Name of Facility:	The Babcock and Wilcox Co
Person to Contact:	Lindsey Larson
Address:	1562 Beeson St Alliance, OH 44601-2195

Location of proposed air contaminant source(s) [emissions unit(s)]:
180 S Van Buren Ave
Barberton, **Ohio**

Description of proposed emissions unit(s):
6.0 MMBTU/HR Coal, Oil, Gas Boiler for Research and Development Purposes.

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

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install 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 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 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. Records Retention Requirements

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.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction 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).

6. 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.

7. 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.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install 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.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

10. 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.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. 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.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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.

15. 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 this Permit to Install.

B. 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

Pollutant	Tons Per Year
PM/PM-10	3.29
SO2	15.3
OC	0.23
NOx	39.5
CO	7.88

Emissions Unit ID: **B001**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
B001 - Small Boiler Simulator, 6 million Btu per hour coal, natural gas, and No. 6 fuel oil fired R&D boiler controlled with a baghouse and a dry and wet scrubber	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)
	OAC rule 3745-17-10(B)
	OAC rule 3745-17-10(C)
	OAC rule 3745-21-07(B)
	OAC rule 3745-21-08(B)
	OAC rule 3745-23-06(B)

OAC rule 3745-35-07(B)(to avoid Title V requirements).	Applicable Emissions Limitations/Control Measures The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B), 3745-21-07(B), 3745-21-08(B), 3745-23-06(B), and 3745-35-07(B). When burning a combination of the following fuels: natural gas, No. 6 fuel oil, and/or coal, PM shall not exceed 0.125 lb/MMBtu of actual heat input, 0.75 lb/hr, and 3.29 tons per year. Nitrogen oxides (NOx) emissions shall not exceed 1.5 lb/MMBtu of actual heat input, 9.0 lbs/hr, and 39.5 tons per year. Sulfur dioxide (SO2) emissions shall not exceed 3.33 lb/MMBtu of actual heat input and 20 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 0.3 lb/MMBtu of actual heat input, 1.8 lbs/hr, and 7.88 tons per year. Organic compound (OC) emissions shall not exceed 0.0087 lb/MMBtu of actual heat input, 0.052 lbs/hr, and 0.23 tons per year. The above limitations are based on the emissions unit operating at maximum capacity.	See A.2.a below. 20% opacity as a 6-minute average, except as provided by rule When burning natural gas exclusively, particulate matter (PM) and particulate matter with aerodynamic diameter less than ten microns in diameter (PM-10) emissions shall not exceed 0.02 lb/MMBtu of actual heat input. When burning a combination of natural gas, No. 6 fuel oil, and/or coal, the PM/PM-10 limitation specified in this rule is less stringent than the PM/PM-10 limitation established pursuant to OAC rule 3745-31-05(A)(3). See A.2.b below. See A.2.b below. See A.2.b below. The permittee shall only burn natural gas, No. 6 fuel oil, coal or a combination of these fuels in this emissions unit. The use of other fuels will require the permittee to apply for and obtain either a temporary exemption from the director or a permit to install modification. Coal sulfur content shall not exceed 4.0% by weight

No. 6 fuel oil sulfur content shall not exceed 2.0% by weight.

The permittee shall burn no more than 750 tons of coal in this emission unit per rolling 12-month period.

The permittee shall burn no more than 6,000 gallons of No. 6 fuel oil in this emission unit per rolling 12-month period.

The permittee shall burn no more than 3.6 x 10^6 scf of natural gas in this emission unit per rolling 12-month period.

SO2 emissions shall not exceed 15.3 tons per rolling 12-month period.

The maximum SO2 emission rate when burning coal shall not exceed 12.0 lbs/hr.

2. Additional Terms and Conditions

2.a The hourly emission limitations are based upon the emissions unit's restricted potential to emit and , therefore, no additional monitoring, record keeping, or reporting requirements are necessary to demonstrate compliance with these emission limitations.

2.b The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-21-07(B), respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State

Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-07(B) and 3745-23-06(B) by committing to comply with best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 16-02367.

2.c The emissions unit shall be equipped and operated with low-NOx burners.

B. Operational Restrictions

1. In order to avoid the applicability of the federal Title V permitting for SO2, the permittee shall restrict the use of the fuels burned in this emissions unit, in accordance with the following formula summed over time:

(X cu. ft natural gas burned/rolling, 12-month period)(0.6 lb SO2 / 10^6 cu ft nat gas) +

(Y gal No 6 fuel oil/rolling 12-month summation)((157*(S) lb SO2 / 10^3 gal fuel oil) +

(Hours operated burning coal/rolling 12-month period)(12 lb SO2 / hr)

< or = (30,600 lbs SO2 / rolling 12-month period).

Where:

S is the percent sulfur by weight, as an average value for the month
X is the cubic feet of natural gas burned per rolling, 12-month period
Y is the gallons of No. 6 fuel oil burned per rolling, 12-month period

The emission factors in the above equations are taken from applicable tables in AP-42.

Should more accurate SO2 emission factors be developed through emission testing or fuel analyses, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.

In addition, during the first 12 calendar months of operation following the issuance of Permit to Install 16-02367, the permittee shall not exceed the limitations for the amount of fuel burned as specified in the following table:

Month	Maximum Allowable Coal Burned (tons)	Maximum Allowable No. 6 Fuel Oil Burned (gallons)	Maximum Allowable Natural Gas Burned (scf)

1	125	1000	6.0×10^5
1 - 2	125	1000	6.0×10^5
1 - 3	250	2000	1.2×10^6
1 - 4	250	2000	1.2×10^6
1 - 5	375	3000	1.8×10^6
1 - 6	375	3000	1.8×10^6
1 - 7	500	4000	2.4×10^6
1 - 8	500	4000	2.4×10^6
1 - 9	625	5000	3.0×10^6
1 - 10	625	5000	3.0×10^6
1 - 11	750	6000	3.6×10^6
1 - 12	750	6000	3.6×10^6

After the first 12 calendar months of operation following the issuance of Permit to Install 16-02367, compliance with the annual limitation of the amount of fuels burned shall be based upon a rolling, 12-month summation of the fuels burned.

2. The pressure drop across the baghouse shall be maintained within the range of 10 - 25 inches of water while the emissions unit is in operation and burning coal or No. 6 fuel oil. If only natural gas is being combusted, use of the baghouse is not necessary. This restriction does not apply during periods of startup, shutdown, and bag pulsing.

3. While the emissions unit is in operation and burning coal, a scrubber (wet or dry type) shall be employed to control SO_2 emissions as necessary to enure that SO2 emissions do not exceed 12.0 lbs/hr.

4. Whenever the emissions unit is in operating and combusting coal, and a wet scrubber is being used as the control device, the pH of the scrubber liquor shall be maintained within the range of 5.2 - 6.2. This restriction does not apply during periods of startup and shutdown.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation and burning coal or No. 6 fuel oil. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

2. The permittee shall operate and maintain a continuous SO2 monitoring device and recorder which measures and records the SO2 emission rate in the exhaust gases from the dry scrubber when the

dry scrubber and emissions unit are in operation. The SO2 monitoring device and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. a log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit; and

b. the average SO2 emissions rate in the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

3. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the wet scrubber is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. The pH of the scrubber liquor, on daily basis.

b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

4. 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, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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 D129, D240, and D4294), or equivalent methods as approved by the Director.

The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall

collect or require the oil supplier to collect a representative grab sample of oil and 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.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee'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).)

5. The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. A representative sample is obtained by taking several discrete samples from various locations of the coal pile. The discrete samples are combined to form a composite. The composite is then 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 D5865, Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

6. For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee’s or coal supplier’s analyses for ash content, sulfur content, and heat content.

7. The permittee shall maintain monthly records of the following information:

   a. the quantity of coal burned, in tons;

   b. the quantity of No. 6 fuel oil burned, in gallons;

   c. the quantity of natural gas burned, in cubic feet;

   d. the hours of operation burning coal;

   e. the rolling, 12-month summation of coal burned;

   f. the rolling 12-month summation of fuel oil burned;

   g. the rolling 12-month summation of natural gas burned; and

   h. the calculations and the results of the determination that the formulas in term B.1 were met.

   Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative coal, fuel oil, and natural gas burned levels for each calendar month.

8. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to minimize and/or eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks

of time during which the average SO2 emission rate in the exhaust gases from the dry scrubber exceeded the emission rate limitation specified above.

3. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the wet scrubber liquor pH did not comply with the pH requirements specified above.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative coal, No. 6 fuel oil, and natural gas usage levels.

5. The quarterly deviation reports shall be submitted as specified in General Term and Condition A.2 of this permit.

6. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record which shows a deviation of the allowable fuel oil sulfur content based upon the calculated sulfur content from Section C.4 above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 45 days after the deviation occurs.

7. The permittee shall submit, on a quarterly basis, copies of the permittee's or coal supplier's analyses (wet and/or dry) for each shipment of coal which is received for burning in this emissions unit. The permittee or coal supplier's analyses shall document the ash content (percent), sulfur content (percent), and heat content (Btu/pound) of each shipment of coal. The following information shall also be included with the copies of the permittee's or coal supplier's analyses:

   a. the total quantity of coal received in each shipment (tons);

   b. the weighted* average ash content (percent) of the coal received during each calendar month;

   c. the weighted* average sulfur content (percent) of the coal received during each calendar month;

   d. the weighted* average heat content (Btu/pound) of the coal received during each calendar month; and

   e. the weighted* average sulfur dioxide emissions rate (pounds sulfur dioxide/mmBtu actual heat input) from the coal received each calendar month as calculated in accordance with

OAC rule 3745-18-04(F)(1).

*In proportion to the quantity of coal received in each shipment during the calendar month.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the coal shipments received during the previous calendar quarters.

8. The permittee shall submit quarterly written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize and/or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

   The emission testing shall be conducted within 3 months of start-up, unless an extension is approved by Ohio EPA or the local air agency..

2. The emission testing shall be conducted to demonstrate compliance with the hourly emission limitations for SO2 and PM/PM-10 when burning 4.0% sulfur coal.

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

   for particulates, Method 5 of 40 CFR Part 60, Appendix A, and
   for SO_2, Method 6 of 40 CFR Part 60, Appendix A .
   Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

4. 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.

5. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

6. 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):

a. Emission Limitation

When burning natural gas exclusively, particulate matter (PM) and particulate matter with aerodynamic diameter less than ten microns in diameter (PM-10) emissions shall not exceed 0.02 lb/MMBtu of actual heat input.

Applicable Compliance Method

Compliance with this emission limitation may be determined by dividing an emission factor of 7.6 lbs of particulate emissions per million standard cubic feet by the heating value of natural gas (1020 Btu/standard cu. ft.). 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 (7/98).

b. Emission Limitation

PM shall not exceed 0.125 lb/MMBtu of actual heat input, 0.75 lb/hr, and 3.29 tpy when burning 4.0% sulfur coal.

Applicable Compliance Method

Compliance shall be demonstrated through the emission testing requirement specified in sections E.1 - E.5 above. To demonstrate compliance with the annual limitation, multiply

the results of the latest stack test by 8760 hours and divide by 2000 to convert to tons.

c. Emission Limitation

Nitrogen oxides (NOx) emissions shall not exceed 1.5 lb/MMBtu of actual heat input, 9.0 lbs/hr, and 39.5 tpy.

Applicable Compliance Method

If required, compliance shall be determined by emission testing in accordance with Test Methods 1 through 4, and 7 of 40 CFR Part 60, Appendix A.

d. Emission Limitation

Sulfur dioxide (SO2) emissions shall not exceed 3.33 lb/MMBtu of actual heat input, 20 lbs/hr when burning No. 6 fuel oil, and 12.0 lbs/hr when burning coal.

Applicable Compliance Method

Compliance shall be demonstrated through the emission testing requirement specified in sections E.1 - E.5 above when burning coal. If required, compliance shall be demonstrated for No. 6 fuel oil by emissions testing in accordance with Test Methods 1 through 4, and 6 of 40 CFR Part 60, Appendix A.

e. Emission Limitation

Carbon monoxide (CO) emissions shall not exceed 0.3 lb/MMBtu of actual heat input, 1.8 lbs/hr, and 7.88 tpy.

Applicable Compliance Method

If required, compliance shall be determined by emission testing in accordance with Test Methods 1 through 4, and 10 of 40 CFR Part 60, Appendix A.

f. Emission Limitation

Organic compound (OC) emissions shall not exceed 0.0087 lb/MMBtu of actual heat input, 0.052 lbs/hr, and 0.23 tpy.

Applicable Compliance Method

If required, compliance shall be determined by emission testing in accordance with Test Methods 1 through 4, and 18 or 25/25A of 40 CFR Part 60, Appendix A.

g. Emission Limitation

20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method

If required, OAC rule 3745-17-03(B)(1)

h. Operational Restriction

Coal sulfur content shall not exceed 4.0% by weight

Applicable Compliance Method

When firing coal, compliance with the allowable sulfur content limitation shall be demonstrated by documenting that the sulfur content of each shipment of coal received during a calendar month meets the limitation.

i. Operational Restriction

No. 6 fuel oil sulfur content shall not exceed 2% by weight.

Applicable Compliance Method

When firing fuel oil, compliance with the allowable sulfur content limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation or use of the alternate method specified in section C.4.b.

j. Operational Restriction

The permittee shall burn no more than 750 tons of coal in this emission unit per rolling 12-month period.

Applicable Compliance Method

Compliance shall be demonstrated through the record keeping requirements of section C.7 of these T&Cs.

k. Operational Restriction

The permittee shall burn no more than 6,000 gallons of No. 6 fuel oil in this emission unit per rolling 12-month period.

Applicable Compliance Method

Compliance shall be demonstrated through the record keeping requirements of section C.7 of these T&Cs.

l. Operational restriction

The permittee shall burn no more than 3.6×10^6 scf of natural gas in this emission unit per rolling 12-month period.

Applicable Compliance Method

Compliance shall be demonstrated through the record keeping requirements of section C.7 of these T&Cs.

m. Emission Limitation

SO2 emissions shall not exceed 15.3 tons per rolling 12-month period.

Applicable Compliance Method

Compliance with the annual emission limitations shall be ensured by compliance with the both the hourly limitation, the control efficiency limitation, and the fuel usage restriction.

F. Miscellaneous Requirements

None