



Environmental Protection Agency

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

11/3/2011

Certified Mail

Michael Valigosky
University of Toledo Health Science Campus
3000 Arlington Ave
Toledo, OH 43614-2598

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

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0448010247
Permit Number: P0108953
Permit Type: Administrative Modification
County: Lucas

Dear Permit Holder:

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

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

and Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

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



Permit Strategy Write-Up

1. Check all that apply:

X Synthetic Minor Determination

Netting Determination

2. Source Description:

This facility is a medical university and hospital campus. The permittee has requested federally enforceable restrictions on coal usage at its coal-fired boilers (B001 – B004) to avoid major source MACT requirements under 40 CFR Part 63, Subpart DDDDD.

The application needs to be split into 2 separate permitting actions, since B001, B002, and B003 were installed prior to the PTI rules being in effect. B004 was installed under 04-079 issued 7/16/1976.

Permit P0108859 will include emissions units B001, B002 and B003 to for voluntary coal usage restriction.

Permit P0108953 will include emissions unit B004 as an Administrative Modification of PTI 04-079.

3. Facility Emissions and Attainment Status:

This facility is a major source of CO, PE, PM10, NOx, SO2 and a minor source of VOC emissions. Although the permittee's potential to emit for HCl (HAP) is greater than 10 tons per year due to the presence of chlorine in coal, the permittee's actual HAP emissions are less than 10 tons per year of any individual HAP and less than 25 tons per year for any combination of HAP. The permittee submitted a Permit to Install application to request a synthetic minor restriction on coal usage in order to avoid requirements of 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

After issuance of this final permit, this facility will be a synthetic minor source of HAP emissions.

4. Source Emissions:

HCl is the HAP emitted in the largest amount at this facility due chlorine being present in coal. Chlorine contained in coal is converted to HCl after being combusted. The permittee has requested a restriction on coal usage at this facility of 16,500 tons per year to maintain potential HAP emissions of less than 10 tons/yr of any individual HAP and less than 25 tons/yr for any combination of HAP.

AP-42 Section 1.1 Tables 1.1-3, 1.1-4, 1.1-15, 1.1-19 dated 9/98

Table with 2 columns: Pollutant, Uncontrolled emission factor lb/ton. Rows include CO (6), NOx (7.5), PE (16), NMOC(VOC) (0.05), HCl (1.2).



OAC restricted emissions

PE OAC rule 3745-17-10(C)(1) 0.14 lb/mmBtu
SO2 (B001-B003) 1.5 OAC rule 3745-18-54(P)
SO2 (B004) 1.6 OAC rule 3745-18-54(A)

Potential emissions from B001 – B004 combined (traveling grate overfeed stoker coal-fired boilers)

The permittee has indicated that the maximum Btu content of coal contained in their coal supplier contract is 13,000 Btu/lb

$13,000 \text{ Btu/lb}(2000 \text{ lb/ton})(16,500 \text{ tons/yr})(\text{mmBtu}/1\text{E}06 \text{ Btu}) = 429,000 \text{ mmBtu/yr}$

CO: $6 \text{ lb/ton}(16,500 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 50 \text{ tons/yr}$
NOx: $7.5 \text{ lb/ton}(16,500 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 62 \text{ tons/yr}$
PE: $0.14 \text{ lb/mmBtu}(429,000 \text{ mmBtu/yr})(\text{ton}/2000 \text{ lb}) = 30 \text{ tons/yr}$
SO2: Worst case SO2 emissions would be if all coal was burned in B004.
 $1.6 \text{ lb/mmBtu}(429,000 \text{ mmBtu/yr})(\text{ton}/2000 \text{ lb}) = 343 \text{ tons/yr}$
VOC: $0.05 \text{ lb/ton}(16,500 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 0.41 \text{ ton/yr}$

Facility Wide HAP Emissions

Coal-fired boilers B001, B002, B003, and B004

Maximum individual HAP

HCl: $1.2 \text{ lb/ton}(16,500 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 9.9 \text{ tons/yr}$

Maximum combined HAP (calculation included in permit application based on AP-42 Section 1.1 dated 9/98 emission factors: 11.3 tons/yr for combined HAP emissions from emissions units B001 – B004.

AP-42 does not identify any HCl emission factors for the combustion of natural gas, fuel oil or diesel fuel. So, the combined HAP emissions for the remaining emissions units at the facility is calculated below to determine if facility-wide PTE is less than 25 tons/yr for any combination of HAP.

Other natural gas boilers at facility

B003 93.3 mmBtu/hr (this unit is permitted for using both coal and gas as fuel)

$(93.3 \text{ mmBtu/hr})(\text{mmscf}/1020\text{mmBtu})(8760 \text{ hrs/yr}) = 801 \text{ mmscf}$

B005 4 mmBtu/hr

$(4 \text{ mmBtu/hr})(\text{mmscf}/1020\text{mmBtu})(8760 \text{ hrs/yr}) = 34.35 \text{ mmscf/yr}$

B006 5.25 mmBtu/hr

$(5.25 \text{ mmBtu/hr})(\text{mmscf}/1020\text{mmBtu})(8760 \text{ hrs/yr}) = 45.09 \text{ mmscf/yr}$

B007 2.5 mmBtu/hr

$(2.5 \text{ mmBtu/hr})(\text{mmscf}/1020\text{mmBtu})(8760 \text{ hrs/yr}) = 21.47 \text{ mmscf/yr}$

Other natural gas/No.2 oil boilers at facility

B008 25.8 mmBtu/hr

B009 25.8 mmBtu/hr

B010 25.8 mmBtu/hr

B011 25.8 mmBtu/hr

From P0108068, maximum fuel usage for B008-B010 combined is:

natural gas: 700 mmscf/yr (synthetic minor restriction)

fuel oil: 800,000 gal/yr (synthetic minor restriction)



Potential HAP emissions from B003, B005, B006, B007, B008-B011 from natural gas combustion
 $801 + 700 + 34.35 + 45.09 + 21.47 = 1602$ mmscf/yr
Combined HAP emission Factor, sum of individual HAP in AP-42 Tables 1.4-3 and 1.4-4 dated 7/98
combined HAP emission factor = 1.89 lb/mmscf
Combined HAP emissions from B005, B006, B007, B008-B011 from natural gas as fuel = 0.76 tons
 $1602 \text{ mmscf/yr} (1.89 \text{ lb/mmscf}) (\text{ton}/2000 \text{ lb}) = 1.51 \text{ ton/yr}$

Potential HAP emissions at B008-B011 from fuel oil combustion
800,000 gallons of fuel oil/yr (from P0108068)
 $(800,000 \text{ gal/yr}) (140 \text{ mmBtu}/1000 \text{ gal}) = 112,000 \text{ mmBtu/yr} = 0.112 \times 10^{12} \text{ Btu}$

Combined organic HAP emission Factor, sum of individual HAP in AP-42 Tables 1.3-9 dated 5/10
0.041 pound organic HAP per 1,000 gallons burned
 $(800,000 \text{ gal/yr}) (0.041 \text{ lb}/1000 \text{ gal}) (\text{ton}/2000 \text{ lb}) = 0.0164 \text{ ton/yr organic HAP}$

Combined metal HAP emission Factor, sum of individual HAP in AP-42 Tables 1.3-10 dated 5/10
45 pounds of metal HAP per 10^{12} Btu heat input
 $(0.112 \times 10^{12} \text{ Btu}) (45 \text{ lb}/10^{12} \text{ Btu}) (\text{ton}/2000 \text{ lb}) = 0.0025 \text{ ton metal HAP/yr}$

Potential HAP from fuel oil combustion at B008 – B010 = organic HAP + metal HAP
 $0.0164 \text{ ton/yr} + 0.0025 \text{ ton/yr} = 0.02 \text{ ton/yr combined HAP from B008-B010}$

Diesel engines at facility

P001 900 kW generator, peak shaving (9.78 mmBtu/hr)
P002 260 kW emergency generator (350 HP) (2.45 mm Btu/hr)
P003 260 kW emergency generator (350 HP) (2.45 mmBtu/hr)
P004 GMC emergency generator (195 HP) (1.37 mmBtu/hr)
P005 150 kW emergency generator (200 HP) 1.4 mmBtu/hr)
P007 757 HP emergency generator (5.3 mmBtu/hr)
P101 750 kW generator, peak shaving (7.8 mmBtu/hr)
P102 750 kW generator, peak shaving (7.8 mmBtu/hr)
P103 75 kW emergency generator (100 HP) (0.7 mmBtu/hr)
P104 250 kW emergency generator (335 HP) (2.35 mmBtu/hr)
P105 750 kW generator, peak shaving (7.8 mmBtu/hr)
P106 1,350 HP emergency generator (9.45 mmBtu/hr)

Total mmBtu heat input for engines = 59 mmBtu/hr
Combined HAP emission factor, sum of individual HAP from AP-42 Table 3.3-2 dated 10/96
Combined HAP emission factor = 4.55E-03 lb/mmBtu

Total combined HAP emissions from diesel engines
 $(59 \text{ mmBtu/hr}) (4.55\text{E-}03 \text{ lb/mmBtu}) (8760 \text{ hrs/yr}) (\text{ton}/2000 \text{ lbs}) = 1.2 \text{ tons/yr}$

Facility-wide combined HAP emissions

B001-B004: 11.3 tons/yr
B003, B005, B006, B007, B008-B010 natural gas: 1.51 tons
B008 – B010 fuel oil: 0.02 ton/yr
Diesel engines: 1.2 tons/yr
Total: 14.0 tons/yr combined HAP facility-wide



5. Applicable Rules/Regulations

OAC rule 3745-31-05(D) Voluntary synthetic minor limitation on coal usage and addition of facility-wide emission limitation of 9.9 tons/yr for any HAP and 24.9 tons/yr for any combination of HAP to avoid major source MACT requirements.

OAc rule 3745-31-05(A)(3) PTI 04-079 was issued for B004 7/16/1976 and did not establish a BAT emission limitation under this rule. B001, B002, and B003 installed prior to applicability of this rule.

OAC rule 3745-17-07(A)(1) 20% opacity as a 6-minute average

OAC rule 3745-17-10(B)(1) 0.02 lb PE/mmBtu when firing natural gas (B003)

OAC rule 3745-17-10(C)(1) (B001 – B004)

Per OAC rule 3745-17-10(B), the total heat input of all fuel burning units which are operationally or physically united shall be used to determine the lb/mmBtu PE limitation.

OAC rule 3745-17-10(C)(1), Appendix, Curve P-1 of Figure 1

E = 0.8(H)^-0.3010

E = 0.8(53.3 + 93.3 + 93.3 + 93.3)^-0.3010 = 0.14 lb PE/mmBtu

OAC rule 3754-18-54(A) restricts B004 to 1.6 lb SO2/mmBtu

OAC rule 3745-18-54(P) restricts B001 – B003 to 1.5 lb SO2/mmBtu

40 CFR Part 63, Subpart JJJJJJ Area source MACT requirements for Industrial, Commercial, and Institutional Boilers and Process Heaters
0.0000048 pound Hg per million Btu of heat input when burning coal
400 parts per million CO by volume on a dry basis corrected to 3 percent oxygen.

40 CFR Part 63, Subpart A 40 CFR 63 General Provisions (63.11235 identifies what applies)

6. Conclusion:

This permit restricts emissions to 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAP. It is recommended that this permit be issued first as a Draft synthetic minor permit action.

7. Please provide additional notes or comments as necessary:

None

8. Total Permit Allowable Emissions Summary (for informational purposes only):

Table with 2 columns: Pollutant and Tons Per Year. Rows include CO, NOx, PE, SO2, VOC, Individual HAP, and Combined HAP.

PUBLIC NOTICE
11/3/2011 Issuance of Draft Air Pollution Permit-To-Install

University of Toledo Health Science Campus
3000 Arlington Ave,
Toledo, OH 43614-2598
Lucas County

FACILITY DESC.: Colleges, Universities, and Professional Schools

PERMIT #: P0108953

PERMIT TYPE: Administrative Modification

PERMIT DESC: Administrative modification to add federally enforceable restrictions on coal usage at the coal-fired boilers.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: epa.ohio.gov/dapc/permit by entering the permit # or: Babak Firoozi, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604. Ph: (419)936-3015



DRAFT

Division of Air Pollution Control
Permit-to-Install
for
University of Toledo Health Science Campus

Facility ID:	0448010247
Permit Number:	P0108953
Permit Type:	Administrative Modification
Issued:	11/3/2011
Effective:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
University of Toledo Health Science Campus

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Authorization

Facility ID: 0448010247
Facility Description:
Application Number(s): A0042587
Permit Number: P0108953
Permit Description: Administrative modification to add federally enforceable restrictions on coal usage at the coal-fired boilers.
Permit Type: Administrative Modification
Permit Fee: \$200.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 11/3/2011
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

University of Toledo Health Science Campus
3000 Arlington Ave
Toledo, OH 43614-2598

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

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

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director



Authorization (continued)

Permit Number: P0108953

Permit Description: Administrative modification to add federally enforceable restrictions on coal usage at the coal-fired boilers.

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

Emissions Unit ID:	B004
Company Equipment ID:	COAL FIRED BOIL
Superseded Permit Number:	04-079
General Permit Category and Type:	Not Applicable



A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Toledo Department of Environmental Services.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Toledo Department of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Toledo Department of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Toledo Department of Environmental Services in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.



- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Toledo Department of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Toledo Department of Environmental Services.
- 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 Toledo Department of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently

removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart JJJJJ: B004. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Toledo Division of Environmental Services.
3. The total emissions from all emissions units at this facility combined shall not exceed 9.9 tons per year of any hazardous air pollutant (HAP) and 24.9 tons per year of any combination of HAP, based upon a rolling, 12-month summation of emission rates.
4. The permittee shall maintain records of the monthly and the rolling, 12-month summation of the facility-wide emissions of each HAP and total combined HAP.
5. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a) any exceedance of the HAP limitations specified in 3.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

C. Emissions Unit Terms and Conditions



1. B004, COAL FIRED BOILER

Operations, Property and/or Equipment Description:

Keeler 93.3 mmBtu/hr coal fired boiler with electrostatic precipitator

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-079 issued 7/16/1976)	See b)(2)a.
b.	OAC rule 3745-31-05(D) (Voluntary restriction on potential to emit to avoid major source MACT requirements)	See b)(2)e.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(C)(1)	PE shall not exceed 0.14 pound per million Btu of actual heat input.
e.	OAC rule 3745-18-54(A)	Sulfur dioxide (SO ₂) emissions shall not exceed 1.6 pounds of sulfur dioxide per million Btu actual heat input.
f.	40 CFR Part 63, Subpart JJJJJJ (40 CFR 63.11193 – 63.11237) [In accordance with 40 CFR 63.11201(a) and Table 1, this emissions unit is an existing affected boiler with a maximum heat input of greater than 10 mmBtu/hr that is capable of burning coal or natural gas as fuel subject to the emissions limitations/control measures specified in this section.]	Mercury (Hg) emissions when burning coal shall not exceed 0.000048 pound per million Btu of heat input. Carbon monoxide (CO) emissions shall not exceed 400 parts per million by volume on a dry basis corrected to 3 percent oxygen. See b)(2)d.



Table with 2 columns: Applicable Rules/Requirements, Applicable Emissions Limitations/Control Measures. Row g: 40 CFR 63.1 - 16 (40 CFR 63.11235) | Table 8 to Subpart JJJJJJ of 40 CFR Part 63 - Applicability of General Provisions to Subpart JJJJJJ shows which parts of the General Provisions in 40 CFR Part 63.1-16 apply.

(2) Additional Terms and Conditions

- a. PTI 04-079 did not establish an emission limitation under this rule.
b. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid and representative readings of opacity and compliance with 40 CFR Part 60, Appendix B, Performance Specification 1. The plan shall include, at a minimum, procedures for conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring accurate operation of the continuous opacity monitoring system on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

[40 CFR 60.13] and [40 CFR Part 60, Appendix B]

- c. The continuous opacity monitoring system consists of all the equipment used to acquire data and record opacity.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix B to 40 CFR Part 60]

- d. The permittee shall comply with the emission limits and energy assessment requirements specified by this rule no later than March 21, 2014.

[40 CFR 63.11196(a)(2), (3)]

- e. The maximum annual coal usage rate for emissions units B001, B002, B003, and B004 combined shall not exceed 16,500 tons per year, based upon a rolling, 12-month summation of the coal usage rates.

Emissions units B001, B002, B003, and B004 have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the coal usage rate, upon issuance of this permit.

c) Operational Restrictions

- (1) The coal received for burning in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of sulfur dioxide per million Btu of heat content, complies with the allowable sulfur dioxide emission limitation contained in this permit.

[OAC rule 3745-18-04(D)] and [OAC rule 3745-77-07(A)]

- (2) See 40 CFR Part 63, Subpart JJJJJJ (40 CFR 63.11193 – 63.11237)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office verifying that the continuous opacity monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

[40 CFR 60.13] and [40 CFR Part 60, Appendix B]

- (2) The permittee shall operate and maintain the continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from this emissions unit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous opacity monitoring system including, but not limited to:

- a. percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
- b. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- c. hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,

- f. the reason (if known) and the corrective actions taken (if any) for each such event in (d) and (e).

[40 CFR 60.13] and [40 CFR Part 60, Appendix B]

- (3) The permittee shall collect a representative sample of each shipment of coal which is received for burning with a minimum of 1 sample per truck load or railcar load. The coal sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each calendar month, the representative samples of coal from all shipments of coal which were received 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 to be used to determine the ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal; ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

[OAC rule 3745-18-04(D)(3)(b)] and [OAC rule 3745-77-07(A)]

- (4) The permittee shall maintain monthly records of the total quantity of coal received, and the results of the analyses for ash content, sulfur content, and heat content.

[OAC rule 3745-18-04(D)] and [OAC rule 3745-77-07(A)]

- (5) The permittee shall calculate and record the average monthly sulfur dioxide emission rate for each monthly composite fuel sample analyzed under d)(3) as follows:

$$ER = (1 \times 10^6)/H \times S \times 1.9$$

where: ER = the emission rate in pounds of sulfur dioxide per MMBtu;

H = the heat content of the solid fuel in Btu per pound;

S = the decimal fraction of sulfur in the solid fuel.

[OAC rule 3745-18-04(F)(1)] and [OAC rule 3745-77-07(A)]

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

- a. the coal usage rate, in tons, for this emissions unit; and

- b. the rolling, 12-month summation of the coal usage rates, in tons, for emissions units B001, B002, B003, and B004 combined.

[OAC rule 3745-31-05(D)]

- (7) See 40 CFR Part 63, Subpart JJJJJJ (40 CFR 63.11193 – 63.11237)

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[OAC rule 3745-77-07(A)]

- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity monitoring system:

- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance.

- b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

- i. the facility name and address;
- ii. the manufacturer and model number of the continuous opacity monitor;
- iii. a description of any change in the equipment that comprises the continuous opacity monitoring system (COMS), including any change to the hardware, changes to the software that may affect COMS readings, and/or changes in the location of the COMS sample probe;
- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total operating time (hours) of the emissions unit;
- vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;

- vii. the date, time, and duration of any/each malfunction** of the continuous opacity monitoring system, emissions unit, and/or control equipment;
- viii. the date, time, and duration of any downtime** of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
- ix. the reason (if known) and the corrective actions taken (if any) for each event in (b)(vii) and (viii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

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

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

[40 CFR 60.7]

- (3) The permittee shall submit quarterly reports on the quality and quantity of coal received for burning in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:
 - a. the total quantity of coal received (tons);
 - b. the average ash content (percent) of the coal received;
 - c. the average sulfur content (percent) of the coal received;
 - d. the average heat content (Btu/pound) of the coal received; and
 - e. the calculated, average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) for the coal received.

Compliance with the sulfur dioxide emission limit shall be determined each month by calculating the average monthly sulfur dioxide emission rate using the results of the analyses of the monthly composite sample for sulfur content and heat content.

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

[OAC rule 3745-18-04(D)] and [OAC rule 3745-77-07(A)]

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



all exceedances of the rolling, 12-month limitation of the coal usage rate for emissions units B001, B002, B003, and B004 combined.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-31-05(D)]

(5) See 40 CFR Part 63, Subpart JJJJJJ (40 CFR 63.11193 – 63.11237)

f) Testing Requirements

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

a. Emission Limitation

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

Applicable Compliance Method

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-17-03(B)(1)(a)]

b. Emission Limitation:

PE shall not exceed 0.14 pound per million Btu of actual heat input.

Applicable Compliance Method:

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

[OAC rule 3745-17-03(B)(9)]

c. Emission Limitation:

SO2 emissions shall not exceed 1.6 pounds of SO2 per million Btu actual heat input.

Applicable Compliance Method:

The records required by d)(3) thru d)(5) shall be used to demonstrate compliance with this emission limitation.



If required, the permittee shall also demonstrate compliance according to the method(s) and procedures specified in OAC rule 3745-18-04(D).

[OAC rule 3745-18-04(d)]

(2) See 40 CFR Part 63, Subpart JJJJJJ (40 CFR 63.11193 – 63.11237)

g) Miscellaneous Requirements

(1) None.