Ohio Environmental Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

11/8/2010

Certified Mail

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

Jim Stice
DP&L, Killen Generating Station
14869 U.S. Route 52
Manchester, OH 45144

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0701000060
Permit Number: P0106805
Permit Type: OAC Chapter 3745-31 Modification
County: Adams

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Peoples Defender. 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
122 South Front Street
Columbus, Ohio 43215

and

Portsmouth City Health Dept., Air Pollution Unit
605 Washington Street
3rd Floor
Portsmouth, OH 45662

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 Portsmouth City Health Dept., Air Pollution Unit at (740)353-5156.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Portsmouth; Kentucky; West Virginia

50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

614 | 644 3020
614 | 644 3184 (fax)
www.epa.ohio.gov

Permit Strategy Write-Up

STAFF DETERMINATION FOR THE APPLICATION TO MODIFY ONE EXISTING EMISSIONS UNIT UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS FOR DP&L KILLEN GENERATING STATION LOCATED IN MONROE TOWNSHIP, ADAMS COUNTY, MANCHESTER OHIO PERMIT TO INSTALL NO. P0106805

The Clean Air Act and regulations promulgated thereunder require that major air pollution sources undergoing construction or modification comply with all applicable Prevention of Significant Deterioration (PSD) provisions and nonattainment area New Source Review (NSR) requirements. The federal PSD rules govern emission increases in attainment areas for major stationary sources, which are facilities with the potential to emit 250 tons per year or more of any pollutant regulated under the Clean Air Act, or 100 tons per year or more if the source is included in one of 28 source categories. In nonattainment areas, the definition of major stationary source is one having at least 100 tons per year potential emissions. A major modification is one resulting in a contemporaneous net increase in emissions which exceeds the significance level of one or more pollutants. Any changes in actual emissions within this five- or ten-year period are considered to be contemporaneous. In addition, Ohio has incorporated the PSD and NSR requirements by rule under Ohio Administrative Code (OAC) 3745-31, and currently has a program that is fully approved by USEPA. For emissions of particulate matter 2.5 microns and less in diameter (PM2.5), Ohio will have to use the requirements established in 40 CFR Part 51, Appendix S until the OAC regulations are modified to include PM2.5 emissions.

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

1) Best Available Control Technology (BACT) review - A detailed engineering review must be performed to ensure that BACT is being installed for the pollutants for which the new source is a major stationary source.

2) Ambient Air Quality Review - An analysis must be completed to ensure the continued maintenance of the National Ambient Air Quality Standards (NAAQS) and that any increases in ambient air pollutant concentrations do not exceed the incremental values set pursuant to the Clean Air Act.

Since the nonattainment area provisions of the Clean Air Act are not applicable to the proposed project, no further discussion of the nonattainment requirements is included in this discussion.

Finally, New Source Performance Standards (NSPS), National Emissions Standards for Hazardous Air Pollutants (NESHAPs), State Implementation Plan (SIP) emission standards, and public participation requirements must be followed in all cases.

Site Description

The Dayton Power and Light Company (DP&L) plans to implement a renewable energy project at Killen Electric Generating Station (Killen). DP&L plans to introduce a renewable fuel that will be co-fired with coal to provide up to 5% of the total heat input (296.4 mmBtu/hr) or 7-8% by weight for boiler #2, emissions unit ID B001. The fuel source will consist of briquetted wood and grass or other approved clean cellulosic biomass. Boiler #2 (B001) is a dry-bottom, opposed wall fired boiler nominally rated at 600MW output and 5,928 mm/Btu

per hour heat input. The introduction of the clean cellulosic biomass will not change the boiler's designation as a coal fired unit and no modifications to the boiler's furnace, burners, or pulverizers will be needed to accommodate the fuel change. The operational restriction on the annual use of clean cellulosic biomass will be limited to 185,000 tons to ensure that the ratio of 5% total heat input, or the 7-8% by weight ratio will be obtained.

The proposed renewable fuel stream will be comprised of briquettes of wood and grass or other approved clean cellulosic biomass. The renewable fuel briquettes will be produced and manufactured offsite at a separate facility and shipped to DP&L Killen by truck. The renewable fuel briquettes will not be manufactured onsite at the Killen Station. The renewable fuel will be delivered as a dry, compressed, solid briquette, and stored and handled as a separate fuel stream. The renewable fuel will be introduced to boiler fuel input stream from its storage building by conveyor onto the existing coal handling and feed system Conveyor No. 3. From there it will accompany coal through remaining handling systems and into the existing bunkers for firing.

Adams County is classified as having ambient air quality better than the National Ambient Air Quality Standards (NAAQS) and is designated as attainment for the criteria pollutants: PM10, SO_2, NOx, CO. lead, and ozone (8-hour standard). Adams County is designated as attainment for the 24-hour PM_{25} standard; however, Monroe Township, Adams County, is part of the Huntington-Ashland WV-KY-OH nonattainment area for the annual PM_{25} NAAQS.

New Source Review (NSR)/PSD Applicability

DP&L Killen is defined as a major stationary source for purposes of State and federal major new source review (NSR) programs. Killen is a major stationary source under Prevention of Significant Deterioration (PSD) regulations. Potential plant-wide emissions of one or more attainment pollutants at an electric utility generating station are greater than 100 tons per year (tpy). DP&L Killen is also a major stationary source for $PM_{2.5}$ emissions under State and federal Emission Offset, or Nonattainment New Source Review, regulations - potential plantwide emissions of direct PM_{25} are greater than 100 tpy. Potential SO_2 and NOx emissions - $PM_{2.5}$ precursor pollutants, are also greater than 100 tpy.

With the changes to the existing boiler, the project will trigger a BACT analysis for carbon monoxide (CO) only.

In this case, DP&L Killen must comply with the attainment provisions listed in 3745-31-10 through 20 of the Ohio Administrative Code for CO.

TABLE 1

DP&L KILLEN'S POLLUTANT EMISSION RATES

Pollutant	Net Emission Increase Rate (in tpy)	Significant Threshold (in tpy)
CO	1,214	100

Control Technology Review

The requirement to conduct a BACT analysis and determination is set forth in section 165(a)(4) of the Clean Air Act (Act), in federal regulations at 40 CFR Part 52.21(j), and also in OAC rules 3745-31-15(C) and 3745-31-01(S). The BACT requirement is defined as:

"... an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary

source or major modification which the director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such major stationary source or major modification through application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant that would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61, and 63. If the director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be approved by the director instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation and shall provide for compliance by means which achieve equivalent results."

The BACT process was further formalized in a memorandum by USEPA on December 1, 1987 and in the draft New Source Review Workshop Manual (dated October 1990) by introducing a "top-down" concept for BACT analysis. The top-down process requires that all available control technologies be ranked in descending order of control effectiveness. The BACT process first examines the most stringent - or "top"- alternative. That alternative is established as BACT unless it is demonstrated that technical considerations, or energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not applicable. If the most stringent technology is eliminated, then the next most stringent alternative is considered, and this process is continued until an acceptable BACT is selected.

The objective of the BACT analysis is to conduct pollutant-specific control technology evaluation per USEPA requirements. The BACT evaluation steps consist of:

Step 1: identify all control technologies;

Step 2: eliminate technically infeasible options;

Step 3: rank remaining control technologies by control effectiveness;

Step 4: evaluate most effective controls and document results; and

Step 5: select the most effective control based on energy, environmental and economic impacts (generally the feasible technology that is also considered to be cost effective).

<u>BACT Analysis: Boiler, Ohio EPA emissions unit number B001</u>

DP&L Killen identified two potential control technologies:

1. Good Combustion Practices/Controls; and
2. Catalytic Oxidation.

In addition, DP&L Killen lists in Table 3 of their application, a number of permitting actions from the federal RACT/BACT/LAER Clearinghouse (RBLC) database using the following process type code: 11.110 pertaining to fuel combustion at utilities and large industrial size boilers/furnaces > 250 mmBtu/hr burning coal (includes bituminous, subbituminous, anthracite and lignite). DP&L Killen also investigated process type code 11.120 for

fuel combustion at utilities and large industrial size boilers/furnaces > 250 mmBtu/hr burning biomass (includes wood, wood waste, bagasse and other biomass) but found no utility boilers utilizing biomass as a fuel.

Catalytic oxidation has been determined to be technically infeasible for the following reasons:

1. There is not a suitable location to install the catalytic oxidation unit that meets the temperature requirements and space requirements for the catalyst to be effective.

2. Oxidation of SO2 to form SO3 and sulfuric acid mist would create higher opacity levels and destructive corrosion of ducts and other equipment.

3. Catalytic oxidation is not designed to operate in coal-fired applications. Particulate levels would make the catalyst ineffective.

Implementation of good combustion practices to produce high combustion efficiency will minimize boiler CO emissions by ensuring adequate residence time, fuel mixing, sufficient oxygen and higher combustion temperatures. A search of the RACT/BACT/LAER database demonstrates that good combustion practices/controls is the accepted BACT determination for CO emissions from electric utility boilers > 250 mmBtu/hr.

See specific details of the BACT analysis in the air permit-to-install application.

New Source Performance Standards (NSPS) Applicability

The Boiler #2 Biofuel Project involves possible applicability of several subparts of 40 CFR Part 60— New Source Performance Standards.

Subpart D - Standards of Performance for Fossil Fuel-Fired Steam Generators for Which Construction Commenced After August 17, 1971.

Subpart Da - Standards of Performance for Fossil Electric Utility Steam Generators for Which Construction is Commenced After September 18, 1978.

Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001.

NSPS Subparts D and Da

Boiler #2 is an existing electric utility steam generating unit. Construction of the Killen Station and Boiler #2 commenced in July 1974 and was completed in December 1981. Boiler #2 is an affected facility subject to regulation under NSPS Subpart D, Standards of Performance for Fossil Fuel-Fired Steam Generators for Which Construction Commenced After August 17, 1971. Boiler #2 is subject to NSPS Subpart D particulate, opacity, SO_2, and NO_x emissions standards as provided for in the Killen Station's Title V Operating Permit.

The physical and operational changes to Boiler #2 were evaluated under the 40 CFR 60, Subpart A - General Provisions, to determine whether the project would cause the boiler to be modified and subject to regulation under Part 60, Subpart Da, Standards of Performance for Fossil Electric Utility Steam Generators for Which

Construction is Commenced After September 18, 1978. [Note: Per §60.40a(a)(2), the applicability date of September 18 1978 applies to construction, modification, and reconstruction.]

The criteria that defines applicability as a modification under NSPS is found at 40 CER 60.14. Pursuant to §60.14(a):

"Except as provided in (e) and (I) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. ..."
Further, §60.14(f) states that "special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section."

An overriding exemption from definition as a modification for the Boiler #2 Renewable Fuel Project is given under the 'Applicability and designation of affected facility' sections of both Subparts D and Da. Pursuant to §60.40(b) and §60.40a(c):

"Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels, shall not bring that unit under the applicability of this subpart."

Biofuel is a combustible material and not defined as a fossil fuel, thus, the addition of biofuel and co-firing with coal in Boiler #2 meets the subpart-defined exemptions. Boiler #2 is subject only to the currently applicable standards of Subpart D and is not subject to Subpart Da emission standards or requirements.

<u>NSPS Subpart CCCC and Other Subparts</u>

The burning of a renewable fuel stream in Boiler #2 does not subject it to regulation under the currently effective language of NSPS Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001. The renewable fuel briquettes are produced from non-hazardous solid waste - at issue, however, is whether this stream constitutes a 'commercial and industrial waste' and causes Boiler #2 to be defined as a CISWI unit.

Pursuant to the current reading of 40 CFR 60.20 10, Subpart CCCC would only apply if the incineration unit (i.e., solid waste combustion unit) meets all three criteria:

The incineration unit is a new incineration unit as defined in §60.2015.

The incineration unit is a CISWT unit as defined in §60.2265.

The incineration unit is not exempt under §60.2020.

Under 40 CFR 60.2265, in pertinent part a “commercial and industrial solid waste incineration (CISWI) unit” means ‘any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field erected, modular, and Custom built incineration units operating with starved or excess air), and ....' Further, the term “commercial or industrial waste” means solid waste (as defined in this subpart) that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed, distinct operating unit: whose design does not provide for energy recovery (as defined in this subpart); or operated without energy recovery (as defined in this subpart). Commercial or industrial waste also means solid waste (as defined in this subpart) combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.
The applicability definitions under Subpart *CCCC* capture only that waste that is combusted at facilities that do not recover thermal energy (steam) for a useful purpose from the combustion of solid waste. Combustion units,

such as Boiler #2, that recover thermal energy to produce steam from fuel combustion are by rule not burning a regulated commercial or industrial waste and therefore are not defined as a CISWI unit under the currently effective provisions of Subpart CCCC. DP&L will continue to evaluate any future changes to definitions and affected facility criteria under NSPS Subpart CCCC as they are promulgated and will respond at that time.

Under current regulations the renewable fuel proposed in this permit is not considered Municipal Solid Waste (MSW) and therefore not subject to the requirements of either NSPS Subpart Eb or Subpart AAAA. MSW is defined as commercial/industrial waste generated by non- manufacturing activities and specifically exempts industrial process or manufacturing wastes; wood pallets, or clean wood. The biofuel proposed under this permit application is comprised of clean cellulosic biomass, clean wood and grass-based cellulose. Clean wood is defined as untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped) but specifically does not include yard waste. The wood used in the biofuel will be from tree trimmings and land clearing activities such as those associated with power line maintenance but will not include yard wastes as defined under the referenced Subparts. The wood and wood waste and grass content of the briquetted renewable fuel will be clean wood/wood waste that does not qualify as yard waste or construction, renovation, or demolition waste or otherwise is classified as municipal solid waste.

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Applicability

The Boiler #2 Biofuel Project does not cause DP&L and Boiler #2 to become subject to any currently effective regulation promulgated under 40 CFR Part 63.

Electric Utility MACT Standard

There are no emission standards promulgated under Part 63 applicable to electric utility steam generating units. U.S. EPA has initiated work to develop emissions standards for power plants under Clean Air Act section 112, consistent with a D.C. Circuit Court opinion regarding the Clean Air Mercury Rule (CAMR). The Court has issued the final Consent Decree that calls for signature of the proposed rule no later than March 16, 2011 and of the final rule no later than November 16, 2011. DP&L will comply with all applicable requirements of this rule once promulgated and within the timeframe allowed by the compliance schedule included in the regulation.

CAA Section 112(g) - Review of Major New HAP Sources

CAA Section 112(g) as provided in OAC rule *3745-31-28* - Review of major stationary sources of HAPs requiring MACT determinations does not apply to the Boiler #2 Renewable Fuel Project. This rule applies only to a major source of HAP emissions that commenced construction or reconstruction on or after June 29, 1998 and for which a MACT standard or case-by-case MACT determination has not been issued. The Boiler #2 Renewable Fuel Project involves the modification of the existing boiler - the project does not involve any new HAP emission source construction or reconstruction of the existing boiler.

Modeling Summary

The Killen Station is located in AQCR 103 in Adams County in Wrightsville, Ohio. The area is attainment for all criteria pollutants, except PM2.5. U.S. EPA regulations require the establishment of baseline air quality in the vicinity of the proposed project. This is normally accomplished using representative air quality monitoring data. Air quality modeling can be utilized to demonstrate that the project will have less than a threshold impact. This threshold impact is identified as the PSD monitoring de minimus level. If the projected impact from the proposed project exceeds this level, ambient data must be collected or existing representative data must be identified which is representative of the area.

Killen Station has conducted ambient air quality modeling to determine the potential impact due to the proposed permitting action. Ohio EPA has identified representative CO for use by the Killen Station in this project. Therefore, Killen Station would not be required to perform preconstruction or post-construction monitoring. The following are the projected impacts:

Pollutant	Modeled Period	Modeled Impact	Monitoring De Minimus
CO	8-hour	10.6 ug/m3	575 ug/m3
CO	1-hour	45.2 ug/m3	NA

Modeling Analysis

Air quality dispersion modeling was conducted to assess the effect of this project on the national ambient air quality standards (NAAQS). AERMOD (version 09292) was used in the regulatory default, rural mode. Five years of representative meteorological data (Huntington, West Virginia surface upper air data, 1986-1990) were used.

Peak impacts of CO from the Significant Impact Area (SIA) analysis resulted in modeled concentrations that were less than and well below the applicable Significant Impact Levels of 2000 and 500 ug/m3 for all averaging times evaluated (1-hr and 8- hr, respectively). Therefore, no additional CO modeling was required to be performed for the Class II area PSD increment and NAAQS analyses. It is believed that the permitting action will not cause or contribute to NAAQS exceedances and/or exceed allowable PSD increment threshold levels.

Secondary Impact Analysis

Killen Station conducted the secondary impact analysis for CO which includes the following three categories:

1. Soil and Vegetation:

   No sensitive soil types are known to exist within the SIA of the Killen Station. The NAAQS for all criteria pollutants were designed to protect the publichealth (primary standards) and welfare (secondary standards) from known or anticipated adverse effects and include a margin of safety. Factors that were considered in designing the standards included vegetation effects, soils effects, and material damage effects. Modeling for the permitting action for the NAAQS analysis indicated that the maximum concentrations for all averaging times were less than each applicable NAAQS and therefore based upon that no adverse effects on soils or vegetation is expected.

2. Related Growth:

   The permitting action allowed is not expected to cause or contribute to related industrial or commercial growth that would be an impact on local ambient air quality.

3. Visibility:

   Visibility impacts for the Class I areas were not calculated because all Class I areas were over 200 km from the Killen Station facility.

See specific details in permit application.

Conclusions

Based upon the review of the permit to install application and the supporting documentation provided by the applicant, the Ohio EPA staff has determined the installation will comply with all applicable State and federal environmental regulations and that the requirements for nonattainment and attainment area review are satisfied. Therefore, the Ohio EPA staff recommends that a permit to install be issued to DP&L Killen for this permitting action.

ADAMS COUNTY

PUBLIC NOTICE / PUBLIC HEARING
OHIO ENVIRONMENTAL PROTECTION AGENCY
ISSUANCE OF DRAFT PERMIT-TO-INSTALL

Issue Date: 11/8/2010
Permit Number: P0106805
Facility ID: 0701000060
Facility Location: DP&L, Killen Generating Station
14869 U.S. Route 52,
Manchester, OH 45144
Facility Description: Fossil Fuel Electric Power Generation
Permit Type: OAC Chapter 3745-31 Modification
Permit Description: Dayton Power and Light plans to implement a renewable energy project at Killen Station. This will be a modification to Boiler #2 (B001) to produce energy using a renewable fuel that will be co-fired with coal. The renewable fuel will consist of briquetted wood and grass or other approved clean cellulosic biomass. The renewable fuel stream will provide up to 5% of the unit's total heat input. The boiler is a dry-bottom, opposed wall-fired boiler nominally rated at 600MW output and 5,928 mm/Btu per hour heat input.

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control permit-to-install (PTI) as identified above. Installation of the air contaminant source may proceed upon final issuance of the PTI.

This facility is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by U.S. EPA (40 CFR 52.21) and the Ohio EPA permit to install requirements (OAC 3745-31). The U.S. EPA allows sources to consume no more than the maximum available ambient PSD increment(s) for each PSD pollutant. The Ohio EPA allows PSD sources to consume less than one half the available increment, with some exceptions. After reviewing the modeling for the proposed DP&L project, the Ohio EPA has found no violations of the Ohio Acceptable Increment Impact standards. Project impacts were less than 5% of the available PSD increment for CO. Therefore, the DP&L project meets both Ohio EPA and U.S.EPA incremental impact requirements.

An information session and public hearing on this permit is scheduled for Monday, December 13, 2010 at 6:00PM in the Manchester Community Center, 400 Pike Street, Manchester, Ohio 45144. A presiding officer will be present and may limit oral testimony to ensure all parties are heard. Written comments may also be submitted but must be received by December 20, 2010. Comments received after this date will not be considered a part of the official record.

Comments on this permit, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Cindy Charles at Portsmouth City Health Dept., Air Pollution Unit, 605 Washington Street 3rd Floor, Portsmouth, OH 45662 or (740)353-5156. The permit can be downloaded from the Web page: www.epa.ohio.gov/dapc

Ohio | Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
DP&L, Killen Generating Station

Facility ID:	0701000060
Permit Number:	P0106805
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	11/8/2010
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
DP&L, Killen Generating Station

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Authorization

Facility ID: 0701000060
Facility Description: Electric Generating Station
Application Number(s): A0039841
Permit Number: P0106805
Permit Description: Dayton Power and Light plans to implement a renewable energy project at Killen Station. This will be a modification to Boiler #2 (B001) to produce energy using a renewable fuel that will be co-fired with coal. The renewable fuel will consist of briquetted wood and grass or other approved clean cellulosic biomass. The renewable fuel stream will provide up to 5% of the unit's total heat input.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: $9,000.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 11/8/2010
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

DP&L, Killen Generating Station
14869 U.S. Route 52
Manchester, OH 45144

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:

Portsmouth City Health Dept., Air Pollution Unit
605 Washington Street
3rd Floor
Portsmouth, OH 45662
(740)353-5156

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

Chris Korleski
Director

Authorization (continued)

Permit Number: P0106805
Permit Description: Dayton Power and Light plans to implement a renewable energy project at Killen Station. This will be a modification to Boiler #2 (B001) to produce energy using a renewable fuel that will be co-fired with coal. The renewable fuel will consist of briquetted wood and grass or other approved clean cellulosic biomass. The renewable fuel stream will provide up to 5% of the unit's total heat input.

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

Emissions Unit ID:	**B001**
Company Equipment ID:	Boiler No. 2
Superseded Permit Number:	07-00542
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 Portsmouth City Health Dept., Air Pollution Unit.

(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 Portsmouth City Health Dept., Air Pollution Unit. 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 Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit.

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 Portsmouth City Health Dept., Air Pollution Unit. 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 <u>obtained before</u> 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 permittee shall ensure that any CAIR NOx, SO2, or NOx ozone season units complies with the requirements of OAC 3745-109, which includes submitting timely permit applications. The permittee shall ensure that the affected emissions units comply with those requirements as outlined in the permit application submitted as required by OAC rules 3745-109-03, 109-10 and 109-16 for the affected emissions units.

3. Clean Air Interstate Rule – OAC Chapter 3745-109.

   a) Facility Code – 0701000060.

   b) The following regulated emissions units are subject to the applicable requirements specified in OAC Chapter 3745-109 pursuant to OAC rule 3745-109-01(C)(1):

      (1) B001 – 5928 mmBtu/hour pulverized coal-fired, dry bottom, wall-fired utility boiler

      Note: Ohio EPA DAPC has completed proposed rule amendments for OAC Chapter 3745-14, specifically, OAC rule 3745-14-01 and OAC rule 3745-14-06, which facilitated the transition of the affected units from OAC Chapter 3745-14 into the federal Clean Air Interstate Rule (CAIR) program which began with the 2009 control periods. This began the process of "sunsetting" the parts of OAC Chapter 3745-14 which were no longer needed as a result of Ohio's CAIR rules (OAC Chapter 3745-109). On July 6, 2010, US EPA announced the proposed CAIR replacement rule, the "Transport Rule" as required by the original court vacatur of the federal CAIR program in July 2008. The current time frame for the requirements of this program, as far as new state emission budgets, is beginning with the 2012 control periods.

      The following regulated non-electrical generating emissions units have been allocated the following CAIR allowances in the appropriate permittee's facility account as indicated below:

Emissions Unit Identification Number	Ozone Season Allowance (tons) for years 2009 – 2014
B001	3514

C. Emissions Unit Terms and Conditions

1. B001, Boiler No. 2

Operations, Property and/or Equipment Description:

Babcock and Wilcox pulverized coal-fired, dry bottom, wall-fired utility boiler having a nominal capacity of 5,928 MMBtu/hr and controlled with an electrostatic precipitator (ESP), selective catalytic reduction (SCR), and flue gas desulfurization (FGD) scrubber.

Boiler #2 modified to add capability to burn renewable fuel (wood/grass briquettes, or other approved clean cellulosic biomass) with renewable fuel combustion comprising up to 5 pct. of total heat input (296.4 MMBtu/hr) or up to 8% weight ratio of total fuel input and restricted to 185,500 tons annually.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) d)(19), d)(20) and e)(14)

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.	40 CFR Part 60.42(a)(2)	Any gases discharged into the atmosphere from this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.
b.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60.42(a)(2).
c.	OAC rule 3745-17-10(C)(1) and 40 CFR Part 60.42(a)(1)	Particulate emissions (PM) shall not exceed 0.10 lb/mmBtu of actual heat input.
d.	OAC rule 3745-18-07(C) and 40 CFR Part 60.43(a)(2)	Sulfur dioxide (SO2) emissions shall not exceed 1.2 lbs/mmBtu of actual heat input.
e.	40 CFR Part 60.44(a)(3)	Nitrogen oxides (NOx) emissions shall not exceed 0.70 lb/mmBtu of actual heat input.
f.	OAC rule 3745-31-05(A)(3) (PTI 07-354)	The controlled PM from the chemical cleaning and evaporation process shall not exceed 0.73 lb/hr and 0.03 ton/year.
g.	OAC rule 3745-31-05(A)(3) (PTI 07-001)	Compliance with this rule also includes compliance with OAC rules 3745-17-

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		10(C) and 3745-18-07(C), and the applicable provisions of 40 CFR Part 60, Subpart D.
h.	OAC rule 3745-31-10 through 20	When co-firing coal with wood/ grass briquettes or other approved clean cellulosic biomass: Carbon Monoxide (CO) emissions from the boiler stack shall not exceed 0.15 lb/mmBtu of actual heat input (as a 24-hour average), 889.2 lbs/hr (as a 24-hour average) and 3,895 tpy. See b)(2)a, c)(1), and c)(2).
i.	ORC 3704.03(T)	Volatile organic compounds (VOC) emissions from the boiler stack shall not exceed 0.0034 lb/mmBtu of actual heat input. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through 20. See b)(2)b, c)(1) and c)(2).
j.	OAC rule 3745-114-01	See d)(19) and d)(20).
k.	OAC rule 3745-31-05(A)(3) (PTI 07-00542)	See b)(2)c.

(2) Additional Terms and Conditions

a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the following control measures constitute BACT for CO emissions from this emissions unit when co-firing wood/ grass briquettes or other approved clean cellulosic biomass:

i. It has been determined that the use of good combustion practices, and the emission limitations listed under OAC rules 3745-31-10 through 20 above constitutes BACT for this emissions unit.

The emission limitations based on the BACT requirements are listed under OAC rules 3745-31-10 through 3745-31-20 in b)(1)h above. The controls and practices that constitute BACT also meet the BAT requirements of ORC 3704.03(T).

b. Compliance with ORC 3704.03(T) shall be demonstrated by the emission limitations and compliance with applicable fuel restrictions, BACT requirements,

record keeping, reporting, and emissions testing required by this permit that are associated with the above ORC 3704.03(T) limitations and requirements.

The above-specified limitations under ORC 3704.03(T) represent best available technology (BAT) requirements that were triggered as a result of the New Source Review (NSR) major modification in this permit action for the renewable fuel project which increased potential emissions of CO and VOC only when co-firing coal with wood/grass briquettes, or other approved clean cellulosic biomass. BAT requirements do not apply to this existing emissions unit when firing only coal or fuel oil (for ignition and supplemental firing).

c. OAC rule 3745-31-05(A)(3) did not apply to this modification issued 12/09/2004, based on OAC rule 3745-31-01(QQQ)(1)(b).

This permit allowed the voluntary installation of one flue gas desulfurization (FGD) scrubber unit on emissions unit B001. A permit to install was required to determine whether the air quality impacts associated with the installation of the new FGD unit exceeded the levels outlined in OAC rule 3745-31-01(QQQ)(1)(b). Because an environmentally beneficial exemption does not allow installation of a project that exceeds modeling thresholds, the installation of the scrubber required a permit to install.

d. Each continuous CO monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 4 or 4a and 6. At least 45 days before commencing certification testing of the continuous CO monitoring system(s), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of CO emissions from the continuous monitor(s), in units of the applicable standard(s). Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

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

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; however, the quarterly cylinder gas audit and relative accuracy audit frequency requirements may be adjusted to coincide with linearity checks completed for continuous emissions monitoring systems subject to 40 CFR Part 75, Appendix B requirements.

e. The continuous CO monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

f. The permittee shall maintain a written quality assurance/quality control plan for the continuous SO_2 monitoring system, designed to ensure continuous valid and representative readings of SO_2 emissions in units of the applicable standard(s). Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous SO_2 monitoring system in accordance with the frequencies required pursuant to 40 CFR Part 60 and 40 CFR Part 75; or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B, in lieu of frequencies required in 40 CFR Part 60. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

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

g. The continuous SO_2 monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

h. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_x monitoring system, designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

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

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

i. The continuous NO_x monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction

and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

j. 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.

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

l. The permittee shall maintain a written quality assurance/quality control plan for the continuous particulate monitoring system, designed to ensure continuous valid and representative readings of particulate matter and compliance with 40 CFR Part 60, Appendix B, Performance Specification 11. 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 particulate monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring accurate operation of the continuous particulate monitoring system on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous particulate monitoring system must be kept on site and available for inspection during regular office hours.

m. The continuous particulate monitoring system consists of all the equipment used to acquire data and record particulate emissions.

n. During the review of this permit, it became clear that there are significant uncertainties concerning the expected CO emissions from coal-fired utility boiler sources. These uncertainties include, but are not limited to (1) the fact that limited CO testing has been done on coal-fired utility boiler sources, (2) DP&L, Killen Station has only conducted a trial burn at 3% biomass by weight ratio, and (3) there is limited information on the affects of biomass fuel on boiler operations and control equipment.

Because of the significant uncertainties, DP&L, Killen Station may request that the Director adjust the Best Available Control Technology (BACT) CO limit after enough data has been collected to understand the expected emissions. DP&L may petition the Director to change the limits once initial testing for CO while co-firing at 5% heat input or up to 8% weight ratio is complete and at least six months of data are collected via the CO continuous emissions monitoring system (CEMS). The Director shall consider the information contained in the permittee's

petition, but is not obligated to accept the permittee's recommended BACT CO emission limitation.

o. The permittee shall maintain a written quality assurance/quality control plan for the continuous CO_2 monitoring system, designed to ensure continuous valid and representative readings of CO_2 emissions in units of the applicable standard(s). Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous CO_2 monitoring system in accordance with the frequencies required pursuant to 40 CFR Part 60 and 40 CFR Part 75; or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B, in lieu of frequencies required in 40 CFR Part 60. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

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

p. The continuous CO_2 monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

c) Operational Restrictions

(1) The maximum annual wood/grass briquettes, or other approved clean cellulosic biomass burned in this emissions unit shall not exceed 185,500 tons based upon a rolling, 12-month summation of the renewable fuel use.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Fuel Use (tons)
1	15,500 tons
1-2	31,000 tons
1-3	46,500 tons
1-4	62,000 tons
1-5	77,500 tons
1-6	93,000 tons
1-7	108,500 tons
1-8	124,000 tons
1-9	139,500 tons

1-10	155,000 tons
1-11	170,500 tons
1-12	185,500 tons

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual renewable fuel usage limitation shall be based upon a rolling, 12- month summation of the renewable fuel usage in tons.

(2) The actual heat input from the co-firing of wood/grass briquettes, or other approved clean cellulosic biomass shall not exceed 5% of the emissions unit's actual total heat input, and up to 8% weight ratio on a daily average basis.

(3) The permittee shall combust only coal, distillate fuel oil and/or biodiesel (B20) [for ignition and supplemental firing], and wood/grass briquettes, or other approved clean cellulosic biomass in this emissions unit. The permittee may not alter the raw material waste constituents of the manufactured wood/grass briquettes, or other approved clean cellulosic biomass without prior approval from Ohio EPA.

(4) Clean cellulosic biomass is defined as forest-derived biomass (e.g., green wood, forest thinnings, clean and unadulterated bark, sawdust, trim, and tree harvesting residuals from logging and sawmill materials), corn stover and other biomass crops used specifically for energy production (e.g., energy cane, other fast growing grasses), bagasse and other crop residues (e.g., peanut shells), wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, and clean biomass from land clearing operations.

d) Monitoring and/or Recordkeeping Requirements

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

a. the wood/grass briquettes, or other approved clean cellulosic biomass fuel use for each month; and

b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the wood/grass briquettes, or other approved clean cellulosic biomass fuel use, in tons.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative usage of wood/grass briquettes, or other approved clean cellulosic biomass, in tons, for each calendar month.

(2) The permittee shall maintain daily records of the calculated actual heat input (average) from the co-firing of wood/grass briquettes, or other approved clean cellulosic biomass as a percentage of the total actual heat input to this emissions unit.

(3) 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 Portsmouth Local Air Agency) upon request.

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

(4) 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).

(5) To obtain an exemption pursuant to OAC rule 3745-17-17(A)(3)(a)(i) or (A)(3)(b)(i), the permittee shall operate and maintain a temperature monitor(s) and recorder(s) that measure and record the temperature of the boiler exhaust gases entering the ESP during (a) all periods of start-up until the ESPs are operational or until the inlet temperature of the ESPs achieve the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b) all periods of shutdown until the inlet temperature of the ESPs drop below the temperature level specified in OAC rule 374-17-07(A)(3)(b)(i). An electronic or hardcopy record of the temperature during periods of startup and shutdown shall be maintained.

The temperature monitors and recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modification deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

(6) Until such time that an alternative monitoring option becomes available and is accepted by Ohio EPA and USEPA, the permittee shall install, operate and maintain equipment to continuously monitor and record the particulate mass emission~~s~~ data in units of the standard(s) from this emission unit during operations in which the flue gas is passing through the desulfurization control equipment. Continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR 60.13, 40 CFR Part 60, Appendix B, Performance Specifications 11 and modifications as approved by Ohio EPA and USEPA, and be operated in accordance with 40 CFR Part 60, Appendix B, Performance Specifications 11 and modifications as approved by USEPA, and 40 CFR Part 60, Appendix F, Procedure 2.

The continuous monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous particulate monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 11, with any modifications as approved by Ohio EPA and USEPA. 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 particulate monitoring system: particulate emissions in units of the standard(s) on a one-hour basis, results of daily zero/span calibration checks, magnitude of manual calibration adjustments, the duration of time that the continuous particulate monitoring system was not operating while flue gases were passing through the desulfurization control device, and the duration of time that the flue gases were passing through the desulfurization control device.

(7) Upon initial startup of the unit with the desulfurization control device in operation, the permittee shall perform periodic Method 9 readings. The Method 9 readings must be taken by a certified observer with the following conditions:

a. The permittee will take weekly Method 9 readings, for at least one hour each week during regular source operation until the PM CEMs is certified.

b. If continuous compliance with the opacity limitation is demonstrated for six consecutive weeks and the PM CEMS is in operation and certified, the permittee can begin taking monthly Method 9 readings.

c. Monthly Method 9 readings must be taken for at least two hours each consecutive month but may be performed in no less than 30- minute intervals during regular source operation.

d. If excess opacity is identified during monthly Method 9 readings, the permittee must revert back to weekly Method 9 readings until six consecutive weeks of Method 9 data indicate compliance with the opacity limit.

e. If continuous compliance with the opacity limitation is demonstrated for 6 consecutive months, the permittee may petition the Director and USEPA for a reduction in the frequency of Method 9 readings.

(8) Each continuous particulate monitoring system shall be installed in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 11.

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.

(9) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO_2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2; and has been certified by U.S. EPA or recommended for certification by Ohio EPA to U.S. EPA under 40 CFR Part 75. The letter(s)/document(s) of certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the Director (the Portsmouth 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.

(10) The permittee shall operate and maintain equipment to continuously monitor and record SO_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60 and 40 CFR Part 75.

The permittee shall maintain records of data obtained by the continuous SO_2 monitoring system including, but not limited to:

a. emissions of SO_2 in parts per million on an instantaneous (one-minute) basis;

b. emissions of SO_2 in all units of the applicable standard(s) on an hourly average basis;

c. results of quarterly cylinder gas audits or linearity checks;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous SO_2 monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO_2 monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO_2 monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

(11) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_x monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2; and has been certified by U.S. EPA or recommended for certification by Ohio EPA to U.S. EPA under 40 CFR Part 75. The letter(s)/document(s) of certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the Director (the Portsmouth 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.

(12) The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60 and 40 CFR Part 75.

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

a. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;

b. emissions of NO_x in all units of the applicable standard(s) on an hourly average basis;

c. results of quarterly cylinder gas audits or linearity checks;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous NO_x monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

(13) Prior to the installation of the continuous carbon monoxide (CO) monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate). The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous CO monitoring system meets the requirements of Performance Specifications 4 or 4a and 6. Once received, the letter(s)/document(s) of certification shall be maintained on-site and shall be made available to the Director (the Portsmouth 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.

(14) The permittee shall install, operate, and maintain equipment to continuously monitor and record CO emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60.

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

a. emissions of CO in parts per million on an instantaneous (one-minute) basis;

b. emissions of CO in pounds per hour and in all units of the applicable standard(s) on an hourly average basis;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous CO monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

(15) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous CO_2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 3; and has been certified by U.S. EPA or

recommended for certification by Ohio EPA to U.S. EPA under 40 CFR Part 75. The letter(s)/document(s) of certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

(16) The permittee shall operate and maintain equipment to continuously monitor and record CO_2 emitted from this emissions unit in percent CO_2. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60 and Part 75.

The permittee shall maintain records of data obtained by the continuous CO_2 monitoring system including, but not limited to:

a. percent CO_2 on an instantaneous (one-minute) basis;

b. results of quarterly cylinder gas audits or linearity checks;

c. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

d. results of required relative accuracy test audit(s);

e. hours of operation of the emissions unit, continuous CO_2 monitoring system;

f. the date, time, and hours of operation of the emissions unit without the continuous CO_2 monitoring system;

g. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous CO_2 monitoring system; as well as,

h. the reason (if known) and the corrective actions taken (if any) for each such event in (f) and (g).

(17) The permittee shall maintain daily records of the total heat input values as determined through F-Factor and carbon dioxide calculations as specified in 40 CFR Part 60, Appendix A, Method 19.

(18) The permittee shall have the liquid waste from the emissions unit cleaning process tested to determine if it is a hazardous waste. Only non-hazardous liquid waste from the cleaning process shall be evaporated in this emissions unit.

Any hazardous waste generated from the cleaning process shall be handled, stored, and disposed of in accordance with all State and federal requirements for hazardous waste.

(19) The permit to install for this emissions unit B001 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of

New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Manganese

TLV (ug/m3): 0.2

Maximum Hourly Emission Rate (lbs/hr): 0.60

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.03

MAGLC (ug/m3): 4.8

Pollutant: Acetaldehyde

TLV (ug/m3): 33.2

Maximum Hourly Emission Rate (lbs/hr): 0.39

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.02

MAGLC (ug/m3): 790

Pollutant: Benzene

TLV (ug/m3): 1.6

Maximum Hourly Emission Rate (lbs/hr): 1.57

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.08

MAGLC (ug/m3): 38.1

Pollutant: Formaldehyde

TLV (ug/m3): 0.27

Maximum Hourly Emission Rate (lbs/hr): 1.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.12

MAGLC (ug/m3): 6.4

Pollutant: Toluene

TLV (ug/m3): 188

Maximum Hourly Emission Rate (lbs/hr): 0.33

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.02

MAGLC (ug/m3): 4,476

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the “Air Toxic Policy” will still be satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

(20) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month renewable fuel usage rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative renewable fuel usage levels.

(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 Portsmouth 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

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

a. The permittee shall submit reports within 30 days following the end of each calendar quarter via air services to the Portsmouth Local Air Agency documenting all instances of particulate values in excess of the limitations in b)(1)c of this permit when the emissions unit was operating and gases were passing through the desulfurization control device, detailing the date, commencement and completion times, duration, magnitude (pound per million BTU particulate), reason (if known), and corrective action(s) taken (if any) of each boiler operating day average above the applicable particulate limitation.

The reports shall also document any continuous particulate monitoring system downtime while the emissions unit was in operation and gases were passing through the desulfurization control device, (date, time, duration and reason), along with any corrective action(s) taken.

The report shall also include the date, time, reason, and corrective action(s) taken for each period of source or control equipment malfunction during periods when the emission unit was operating and the gases were passing through the desulfurization control device.

The total operating time that the emissions unit was operating and gases were passing through the desulfurization control device, and the total time of the analyzer shall also be included in this report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with date, time, reason and corrective action(s) taken for each time period of source or control equipment malfunction. The report shall also include the total operating time that the emissions unit was operating and gases were passing through the desulfurization control device, and the total operating time of the analyzer.

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 total of any continuous opacity monitoring system downtime while the emissions unit was on line and flue gases were not passing through the

desulfurization control device, and any continuous particulate monitoring system downtime while the emission unit was operating and flue gases were passing through the desulfurization control device.

ii. The total time (hrs) that the emissions unit was in operation: the total of the operating time that the emission unit was operating and flue gases were not passing through the desulfurization control device and the total operating time that the emissions unit was operating and flue gases were passing through the desulfurization control device.

iii. The total excess emissions of particulate recorded for the quarter. Opacity excess emissions will be reported on a 6-minute block average basis while flue gases were not passing through the desulfurization control device. Particulate emissions will be reported when flue gases are passing through the desulfurization control device, and shall be reported on a boiler operating day average basis (arithmetic average of all operating one-hour periods). For limitations with other specified averaging periods, an average of the recorded hourly data in the specified units of the standard(s) shall be reported.

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO_2 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 Portsmouth Local Air Agency, documenting all instances of SO_2 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, 40 CFR Part 75, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s) on a rolling, 3-hour average basis.

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 SO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total SO_2 emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous SO_2 monitoring system while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO_2 monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous SO_2 monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous SO_2 monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

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

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

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

(5) The permittee shall collect, record, and maintain measurements, data, records, and reports for the continuous SO_2 monitoring system required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required per 40 CFR Part 75.

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

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within

30 days following the end of each calendar quarter to the Portsmouth Local Air Agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, 40 CFR Parts 75 and 76, and OAC Chapters 3745-14, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s) on a rolling, 3-hour average basis.

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

i. the facility name and address;

ii. the manufacturer and model number of the continuous NO_x and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total NO_x emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous NO_x monitoring system while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits or linearity checks;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

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

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

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

(7) The permittee shall collect, record, and maintain measurements, data, records, and reports for the continuous NO_x monitoring system required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required per 40 CFR Part 75.

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

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth Local Air Agency, documenting all instances of CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-21, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s) on a rolling, 24-hour average basis.

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 CO and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total CO emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous CO monitoring system while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous CO monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous CO monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

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

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

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

(9) The permittee shall collect, record, and maintain measurements, data, records, and reports for the continuous CO monitoring system required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required per 40 CFR Part 75.

(10) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO_2 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 continuous CO_2 monitoring system downtime and malfunction while the emissions unit was on line.

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 CO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the total operating time (hours) of the emissions unit;

v. the total operating time of the continuous CO_2 monitoring system while the emissions unit was in operation;

vi. results and dates of quarterly cylinder gas audits or linearity checks;

vii. unless previously submitted, results and dates of the relative accuracy test audit(s) (during appropriate quarter(s));

viii. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO_2 monitor out-of-control and the compliant results following any corrective actions;

ix. the date, time, and duration of any/each malfunction* of the continuous CO_2 monitoring system while the emissions unit was in operation;

x. the date, time, and duration of any downtime* of the continuous CO_2 monitoring system while the emissions unit was in operation; and

xi. the reason (if known) and the corrective actions taken (if any) for each event in (b)(ix) and (x).

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

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

(11) The permittee shall collect, record, and maintain measurements, data, records, and reports for the continuous CO_2 monitoring system required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other

pertinent record and/or report to the Administrator (U.S. EPA), as required per 40 CFR Part 75.

(12) The permittee shall submit analytical results of the tests conducted on the liquid waste, pursuant to d)(18) above, to the Portsmouth Local Air Agency 5 days prior to the evaporation of the liquid waste in this emissions unit.

(13) 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.

(14) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

(1) Compliance with emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

PM emissions from the boiler stack shall not exceed 0.10 lb/mmBtu of actual heat input.

<u>Applicable Compliance Method</u>:

Compliance with the lb/mmBtu emission limitation shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 5 or 17 and the procedures in 40 CFR Part 60.46 and OAC rule 3745-17-03(B)(9).

Ongoing compliance with the PM limitation contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

b. <u>Emission Limitation:</u>

The controlled PM from the chemical cleaning and evaporation process shall not exceed 0.73 lb/hr and 0.03 ton/year.

<u>Applicable Compliance Method</u>:

These emission limitations were established by dividing the estimated maximum amount of iron and copper removed from the boiler (15,270 lbs) by the time period during which the cleaning solution is evaporated in the boiler (84 hrs at a

rate of 50 gallons/minute) and multiplying the resulting lbs/hr emission rate by the control efficiency of the ESP (99.6%).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by either (1) re-conducting the tests that yielded the values used to establish the hourly emission limitation above, or (2) performing the particulate emission tests required in f)(2) during the cleaning process.

c. Emission Limitation:

Any gases discharged into the atmosphere from this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method:

Ongoing compliance with the opacity limitation contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

d. Emission Limitation:

SO_2 emissions from the boiler stack shall not exceed 1.2 lbs/mmBtu of actual heat input.

Applicable Compliance Method:

Ongoing compliance with the SO_2 emission limitations contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

If required, the permittee shall demonstrate compliance with the allowable mass emission rate for SO_2 in accordance with the methods and procedures specified in 40 CFR Part 60.46.

e. Emission Limitation:

NO_X emissions from the boiler stack shall not exceed 0.70 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Ongoing compliance with the NO_x emission limitations contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance

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

If required, the permittee shall demonstrate compliance with the allowable mass emission rate for NO_X in accordance with the methods and procedures specified in 40 CFR Part 60.46.

f. Emission Limitation:

When co-firing coal with wood/ grass briquettes or other approved clean cellulosic biomass:

CO emissions from the boiler stack shall not exceed 0.15 lb/mmBtu of actual heat input (as a 24-hour average), 889.2 lbs/hr (as a 24-hour average) and 3,895 tpy.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation shall be demonstrated based upon the applicable emissions tests specified in f)(2) and compliance with the co-firing operational limitation in c)(2).

Ongoing compliance with the CO emission limitations contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

The annual emission rate is based upon the emissions unit's maximum rated heat input capacity of 5,928 mmBtu per hour at the allowable CO emissions rate of 0.15 pound per mmBtu for 8,760 hours per year. Compliance with the annual CO emission limitation shall be demonstrated by the CO emissions record keeping as specified in d)(14).

g. Emission Limitation:

VOC emissions from the boiler stack shall not exceed 0.0034 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation shall be demonstrated through the VOC emission testing required in f)(2) and compliance with the co-firing operational limitation in c)(2).

The emission limitation specified above is based on AP-42 emission factors found in Sections 1.1-19 and 1.6-3 and the co-firing fuel proportion of 95% coal and 5% wood/grass briquettes, or other approved clean cellulosic biomass.

(2) Emission Testing Requirements

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 6 months after commencing operation of this emissions unit while co-firing with wood/grass briquettes, or other approved clean cellulosic biomass as identified in this permit to install; unless otherwise approved by the Portsmouth Local Air Agency to coincide with the required periodic testing pursuant to the terms and conditions for this emissions unit contained in the permittee's Title V Operating Permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PM, CO and VOC when co-firing coal with wood/grass briquettes, or other approved clean cellulosic biomass as specified in b)(1)c, b)(1)h and b)(1)i.

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

i. for PM: 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 5 or 17, and the procedures specified in OAC rule 3745-17-03(B)(9);

ii. for VOC: 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 or 25A; and

iii. for CO: 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near it's maximum capacity and combusting wood/grass briquettes, or other approved clean cellulosic biomass up to 5% of the lb/mmBtu capacity of the emissions unit, or up to 8 % by weight ratio unless otherwise specified or approved by the Portsmouth Local Air Agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

f. Personnel from the Portsmouth 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.

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth 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 Portsmouth Local Air Agency.

(3) Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of the continuous CO monitoring system in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate) and 6; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the Portsmouth Local Air Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the Portsmouth Local Air Agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 4 or 4a (as appropriate) and 6 and ORC section 3704.03(I).

(4) Ongoing compliance with the CO_2 monitoring requirements contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

g) Miscellaneous Requirements

(1) None.