Ohio Environmental Protection Agency

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

9/23/2010

Certified Mail

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

Phillip Spotts
Smart Papers - Hamilton Mill
601 North 'B' Street
Hamilton, OH 45013-2909

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1409040212
Permit Number: P0106289
Permit Type: OAC Chapter 3745-31 Modification
County: Butler

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, Journal News. 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

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660

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 Hamilton County Dept. of Environmental Services at (513)946-7777.

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*
HCDOES; Indiana; Kentucky

BUTLER COUNTY

PUBLIC NOTICE
OHIO ENVIRONMENTAL PROTECTION AGENCY
ISSUANCE OF DRAFT PERMIT TO INSTALL
SUBJECT TO PREVENTION OF SIGNIFICANT DETERIORATION
TO SMART PAPERS.

Public notice is hereby given that the Ohio Environmental Protection Agency (EPA) has issued, on September 23, 2010, a draft action of Permit to Install (PTI) number P0106289 to Smart Papers. This draft permit proposes to allow for the use of an alternative fuel to be burned in two existing boilers and the installation of an alternative fuel pellet plant. Smart Papers is located in Hamilton, Ohio; Butler County.

This project, if approved, will result in permit allowable emissions as defined in the following table.

Pollutant	Permit Allowable (Tons/Year)
Carbon monoxide (CO)	526.7

This facility is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations. The proposed project will trigger PSD review for CO.

The ambient air impact for criteria pollutants allowed by this permit is described in the following table:

Pollutant	Averaging Period	Modeled Ambient Impact (ug/m^3)	Rule/Policy Allowed Ambient Impact (ug/m^3)	Basis
CO	8-hr	12	2,500	Ohio Acceptable
CO	1-hr	20.6	10,000	Ohio Acceptable

There is no PSD increment for CO. Instead, it complies with Ohio EPA acceptable incremental impact which is lower than federal standards of 10,000 ug/m^3 for the 8-hr averaging period and 40,000 ug/m^3 for the 1-hr averaging period.

Within 30 days from the date of this notice, any interested party may submit comments or request a public hearing. Written comments may be submitted to: Bonnie Pray, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.

Copies of the draft permit, permit application and technical support information may be reviewed and/or copies made by first calling to make an appointment at the Hamilton County Department of Environmental Services, located at the above address, telephone number (513) 946-7777.

Ohio | Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Smart Papers - Hamilton Mill

Facility ID:	1409040212
Permit Number:	P0106289
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	9/23/2010
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Smart Papers - Hamilton Mill

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Authorization

Facility ID: 1409040212
Facility Description: Paper mill for manufacturing high quality paper
Application Number(s): A0039380, A0039548
Permit Number: P0106289
Permit Description: Alternative Fuels Project - Proposed Firing of Alternative Fuels in Coal-Fired Boilers #10 and #14
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: $3,250.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 9/23/2010
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

Smart Papers - Hamilton Mill
601 North 'B' Street
Hamilton, OH 45013-2909

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:

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660
(513)946-7777

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: P0106289
Permit Description: Alternative Fuels Project - Proposed Firing of Alternative Fuels in Coal-Fired Boilers #10 and #14

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

Emissions Unit ID:	**B010**
Company Equipment ID:	Boiler #10 CH11002
Superseded Permit Number:	14-05962
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**B020**
Company Equipment ID:	Boiler #14 CH11003
Superseded Permit Number:	14-05962
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 Hamilton County Dept. of Environmental Services.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Hamilton County Dept. of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Hamilton County Dept. of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Hamilton County Dept. of Environmental Services in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

d) The permittee shall submit progress reports to the Hamilton County Dept. of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Hamilton County Dept. of Environmental Services.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Hamilton County Dept. of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

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

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

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as “permanently shut down” in Ohio EPA’s “Air Services” along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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

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

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

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be <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 – 1409040212.

   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) B010 – 420 mmBtu/hour pulverized-dry bottom coal-fired 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 be 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.

   e) 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
B010	201

C. Emissions Unit Terms and Conditions

1. B010, Boiler #10 CH11002

Operations, Property and/or Equipment Description:

420 mmBtu/hr pulverized-dry bottom coal and alternative fuel-fired boiler, with No. 2 fuel oil burners for ignition and supplemental firing, controlled by an electrostatic precipitator (ESP) - NSR Major Modification

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) g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through 3745-31-20 Alternative Fuels Project - Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT) Cogeneration Expansion Project - Prevention of Significant Deterioration (PSD)	When co-firing coal with alternative fuel fluff material: Carbon monoxide (CO) emissions shall not exceed 150 ppmvd, 0.15 pound per mmBtu of actual heat input, and 275.9 tons per year (TPY) as a rolling, 12-month summation. See b)(2)a., b)(2)b., d)(17) and g)(3). When combusting only coal: See b)(2)c., d)(16), and g)(2).
b.	ORC 3704.03(T) Best Available Technology (BAT)	When co-firing coal with alternative fuel fluff material: Particulate matter 10 microns and less in diameter (PM_{10}) shall not exceed 0.042 grain (gr) per dry standard cubic foot (dscf);

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Particulate matter 2.5 microns and less in diameter ($PM_{2.5}$) shall not exceed 0.024 grain (gr) per dry standard cubic foot (dscf); and Volatile organic compound (VOC) emissions shall not exceed 0.007 pound per mmBtu of actual heat input. See c)(4). The requirements of this rule also include compliance with the requirements of BACT under OAC rule 3745-31-15.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
d.	OAC rule 3745-17-10(C)(1) Figure I	Particulate emissions (PE) shall not exceed 0.116 pound per mmBtu of actual heat input.
e.	OAC rule 3745-18-15(L)	Sulfur dioxide (SO_2) emissions shall not exceed 1.7 pounds per mmBtu of actual heat input. See c)(1).
f.	OAC Chapter 3745-103 Acid Rain Permits and Compliance	Exempt. See b)(2)h.
g.	40 CFR Part 60, Subpart Db Standards of Performance for New Stationary Sources (NSPS), Industrial, Commercial, and Institutional Steam Generating Units	Exempt. See b)(2)i.
h.	40 CFR Part 60, Subpart Eb Standards of Performance for New Stationary Sources (NSPS), Large Municipal Waste Combustors	Exempt. See b)(2)j. and c)(3).
i.	40 CFR Part 60, Subpart CCCC Standards of Performance for New Stationary Sources (NSPS), Commercial and Industrial Solid Waste Incineration Units	See b)(2)k.
j.	40 CFR Part 63, Subpart DDDDD	See b)(2)l.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process heaters	

(2) Additional Terms and Conditions

a. Based on the 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 alternative fuel fluff material under the Alternative Fuels Project:

i. Optimize combustion efficiency by the use of over-fire air with good combustion practices to minimize CO emissions.

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

b. The maximum allowable CO emissions rate of this emissions unit will not cause or contribute to a violation of the National Ambient Air Quality Standard (NAAQS) based upon the permittee's air dispersion modeling information submitted on April 20, 2010, to Ohio EPA for the Alternative Fuels Project.

c. The maximum allowable SO_2 emissions rate of this emissions unit will not cause or contribute to a violation of a National Ambient Air Quality Standard (NAAQS) and/or Prevention of Significant Deterioration (PSD) increment based upon the permittee's air dispersion modeling information submitted on September 26, 2007, to Ohio EPA for the Cogeneration Expansion Project.

d. 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 Alternative Fuels Project which increased potential emissions of CO, PM_{10}, $PM_{2.5}$, and VOC only when co-firing coal with alternative fuel fluff material. BAT requirements do not apply to this existing emissions unit when firing only coal or fuel oil (for ignition and supplemental firing).

e. 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.

f. Each continuous carbon monoxide (CO) monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a. 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). 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 quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

g. The continuous opacity and CO monitoring systems consist 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. This emissions unit is exempt from the acid rain program requirements in OAC Chapter 3745-103 pursuant to the gross electric sales exemption threshold for a cogeneration facility specified in OAC rule 3745-103-02(B)(4)(b). The permittee shall maintain records as specified in d)(15) to demonstrate compliance with the following exemption threshold:

i. average annual electric sales to the utility power distribution system shall not exceed more than one-third of potential electrical output capacity; or

ii. actual electric output (on a gross basis) shall not exceed 219,000 MWe-hours.

i. This emissions unit is exempt from the steam generating unit requirements in 40 CFR Part 60, Subpart Db for affected units that commence construction, modification, or reconstruction after 6/19/1984. The Alternative Fuels Project, as proposed in this permitting action, does not result in a modification or reconstruction of this emissions unit pursuant to the definitions of modification and reconstruction specified in 40 CFR Part 60.14 and 60.15. This emissions unit is undergoing a physical and operational change as a result of the

Alternative Fuels Project; however, the change does not result in an increase in the emission rate of any pollutant subject to regulation under Subpart Db (i.e., filterable particulate matter, sulfur dioxide, and nitrogen oxides).

j. This emissions unit is exempt from the municipal waste combustor requirements in 40 CFR Part 60, Subpart Eb pursuant to the definitions of municipal solid waste and municipal waste combustor specified in 40 CFR Part 60.51b. The alternative fuel fluff material is manufactured from industrial process waste paper, paper mill sludge, and wood wastes (clean wood) which are materials specifically excluded from the definition of municipal solid waste.

In order to demonstrate that this emissions unit is exempt from 40 CFR Part 60, Subpart Eb, the permittee shall comply with the monitoring and record keeping requirements as specified in d)(7) and d)(8) to ensure that the alternative fuel fluff material does not contain discarded waste constituents that would classify the fuel as municipal solid waste.

k. This emissions unit may be subject to the Standards of Performance for Commercial and Industrial Solid Waste Incinerations (CISWI) Units, 40 CFR Part 60, Subpart CCCC. U.S. EPA initially promulgated these standards under Section 129 of the Clean Air Act (CAA) on December 1, 2000, with a compliance date of June 1, 2001. On July 30, 2007, the definition of a CISWI unit was vacated by mandate of the U.S. Court of Appeals for the District of Columbia Circuit. On June 4, 2010, U.S. EPA proposed amendments to the CISWI unit definition and standard which remove the prior exemption for units that combust non-traditional fuel (industrial solid waste) for the purposes of energy recovery. Under the June 4, 2010 U.S. EPA proposed amendments to Subpart CCCC, the permittee's Alternative Fuel Project in this permitting action may classify emissions units B010 and B020 as CISWI units subject to Subpart CCCC, unless the permittee meets the exemption requirements for a cogeneration facility pursuant to 60.2020(f). Upon promulgation of the amendments to Subpart CCCC, the permittee shall comply with the requirements of Subpart CCCC, if applicable, including initial reporting and notification requirements pursuant to Table 4 in Subpart CCCC, or the permittee shall comply with the criteria under 60.2020(f) to demonstrate that the units are exempt cogeneration facilities.

l. This emissions unit may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD. U.S. EPA initially promulgated these standards under CAA Section 112 on September 13, 2004, with a compliance date of September 13, 2007. On July 30, 2007, these standards were vacated by mandate of the U.S. Court of Appeals for the District of Columbia Circuit. On June 4, 2010, U.S. EPA proposed revised standards which may exclude sources subject to the CAA Section 129 rules (i.e. NSPS Subpart CCCC) that combust non-traditional fuel (industrial solid waste) for energy recovery. Until such time as a revised MACT standard is promulgated that identifies whether emissions units B010 and B020 are affected sources after commencing operation under the Alternative Fuels Project, the permittee shall comply with the Ohio Air Toxics Policy, pursuant to ORC 3704.03 (F), as specified in Section C. of this permit. Upon promulgation of the revised MACT

standard for sources in this category, the permittee shall determine if they are subject to Subpart DDDDD and shall submit a copy of the Initial Notification to Hamilton County Department of Environmental Services, if applicable.

c) Operational Restrictions

(1) The total combined daily average operating rate for emissions units B010 and B020 shall not exceed 603 mmBtu per hour.

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

(3) The permittee shall combust only coal, distillate fuel oil (for ignition and supplemental firing), and alternative fuel fluff material in this emissions unit. For the purposes of this permit, alternative fuel fluff material shall be fuel manufactured from industrial process waste paper, paper mill sludge, and wood waste (clean wood). The permittee may not alter the raw material waste constituents of the manufactured alternative fuel fluff material without prior approval from OhioEPA.

(4) The actual heat input from the co-firing of alternative fuel fluff material shall not exceed 30% of the emissions unit's actual total heat input, on a daily average basis.

(5) The alternative fuel fluff material burned in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of sulfur dioxide per million Btu of heat content, complies with the allowable sulfur dioxide emission limitation contained in this permit.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than coal, distillate fuel oil, and alternative fuel fluff material, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(2) The permittee shall maintain daily records of the total combined heat input, total combined hours of operation (calculated by the sum of the operating hours for each unit), and the daily average operating rate, in mmBtu per hour, for emissions units B010 and B020. To determine the heat input, the permittee shall continuously monitor and record the steam flow rate from this emissions unit.

(3) The permittee shall maintain daily records of the calculated actual heat input (average) from the co-firing of alternative fuel fluff material as a percentage of the total actual heat input to this emissions unit.

(4) This permittee shall collect, or require the coal supplier to collect, a representative sample of coal from each shipment of coal which is received for burning in this emissions unit. The coal sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each month, the representative samples of coal from all shipments of coal which were received during that month shall be combined into one composite sample. This combination may be a physical composite or a weighted average of the test data for the individual shipments.

Each monthly composite sample of coal shall be analyzed for sulfur content (percent) and heat content (Btu/pound of coal). The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the most recent version of the following ASTM methods: ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Hamilton County Department of Environmental Services.

(5) The permittee shall collect, or require the alternative fuel supplier to collect, a representative sample of the alternative fuel material from each shipment of alternative fuel which is received for burning in this emissions unit. The alternative fuel sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each month, the representative samples of alternative fuel from all shipments of alternative fuel which were received during that month shall be combined into one composite sample. This combination may be a physical composite or a weighted average of the test data for the individual shipments.

Each monthly composite sample of alternative fuel shall be analyzed for sulfur content (percent) and heat content (Btu/pound of fuel). The analytical methods to be used to determine the sulfur content and heat content shall be the most recent version of: ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Hamilton County Department of Environmental Services.

(6) The permittee shall maintain monthly records of the total quantity of coal received, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds per mmBtu), for all shipments of coal during each calendar month. The sulfur dioxide emission rate is based upon a volume-weighted average as calculated per the equation in OAC rule 3745-18-04(F)(1).

(7) The permittee shall maintain monthly records of the total quantity of alternative fuel burned, the name of the supplier, the raw material constituents used to produce the alternative fuel fluff material, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds per mmBtu), for all alternative fuel fluff materials combusted during each calendar month. The sulfur dioxide emission rate is based upon a volume-weighted average as calculated per the equation in OAC rule 3745-18-04(F)(1).

(8) The permittee shall develop, implement, and maintain an Alternative Fuel Procurement and Monitoring Plan (AFPMP) to ensure that only alternative fuel, as described in c)(3), is being burned in this emissions unit and to prevent unacceptable waste from being burned. The plan shall, at a minimum, specify the following:

a. A description of the alternative fuel to be burned, including the raw materials used to produce the fuel;

b. A description of prohibited waste constituents that would classify the alternative fuel as municipal solid waste;

c. Inspection and sorting procedures and protocol used to eliminate prohibited fuels and minimize unacceptable fuels;

d. Auditing procedures including records of fuel specification, quality control, and batch identification; and

e. Notification and approval procedures for changes to fuel constituents.

The AFPMP and related records must be kept onsite and available for inspection during regular office hours. The permittee shall submit a copy of the AFPMP to Hamilton County Department of Environmental Services 30 days prior to commencing operation of the Alternative Fuels Project.

(9) 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 Specification 4 or 4a. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(10) 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 units of ppmvd as a 3-hour block averaging period;

c. emissions of CO in units of pounds per mmBtu of actual heat input as a 3-hour block averaging period;

d. results of quarterly cylinder gas audits;

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

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

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

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

i. 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,

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

(11) The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of particulate emissions from the common stack serving emissions units B010 and B020. The opacity of the visible particulate emissions from emissions units B010 and B020 shall be monitored in the combined stack for the two boilers (emissions units B010 and B020) and the visible particulate emission limitation specified in b)(1)c. applies to each individual boiler as monitored at the common stack. An exceedance of the visible emissions limitation in b)(1)c. as measured at the common stack does not necessarily constitute an exceedance of the emission limitation for both boilers. Such 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 or less) 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, and

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

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

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

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

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

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

(14) The permittee shall collect and record the following information on a monthly basis for this emissions unit:

a. the monthly CO emissions, in tons (i.e. a summation of the CO CEM data for the calendar month); and

b. the updated rolling, 12-month summation of CO emissions, in tons. This shall include information for the current month and the preceding eleven calendar months.

(15) The permittee shall maintain annual records, on a calendar year basis, of the following information to demonstrate that this emissions unit is not an affected unit under the acid rain program:

a. the potential electrical output capacity of emissions units B010 and B020;

b. the average electric sales to the utility power distribution system;

c. the percentage of average electric sales as compared to the potential electrical output capacity; and

d. the total actual electric output (on a gross basis), in MWe-hours.

(16) The permittee shall maintain the following records for emissions units B010, B020, F003, P019, and all de minimus emissions units (i.e. cooling tower) associated with the Cogeneration Expansion Project, as described in the application for Permit to Install (PTI) number 14-05962, issued January 31, 2008, in order to demonstrate that the

Cogeneration Expansion Project did not trigger major modification for PE, PM_{10}/$PM_{2.5}$, NOx, CO, and VOC:

a. the projected actual annual emissions for PE, PM_{10}, $PM_{2.5}$, NOx, CO, and VOC, in tons per year, from the Cogeneration Expansion Project; and

b. the total actual annual emissions of PE, PM_{10}, $PM_{2.5}$, NOx, CO, and VOC, in tons per year, from emissions units B010, B020, F003, P019, and all de minimus emissions units (i.e. cooling tower) associated with the Cogeneration Expansion Project, combined, for the 5 calendar years after operation of the Cogeneration Expansion Project commenced on April 17, 2009.

(17) The permittee shall maintain the following records for emissions units B010, B020, and all de minimus emissions units (i.e. pellet plant operations) associated with the Alternative Fuels Project, as described in the application for Permit to Install (PTI) number P0106289, submitted April 20, 2010, in order to demonstrate that the Alternative Fuels Project does not trigger major modification for PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC:

a. the projected actual annual emissions for PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC, in tons per year, from the Alternative Fuels Project; and

b. the total actual annual emissions of PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC, in tons per year, from emissions units B010, B020, and all de minimus emissions units (i.e. pellet plant operations) associated with the Alternative Fuels Project, combined, for the 5 calendar years after commencing operation of the Alternative Fuels Project.

e) Reporting Requirements

(1) The permittee shall submit quarterly reports on the quality and quantity of coal received for burning in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

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

b. the average sulfur content (percent) of the coal received;

c. the average heat content (Btu/pound) of the coal received; and

d. the average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from the coal received.

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

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

(2) The permittee shall submit quarterly reports on the quality and quantity of alternative fuel fluff material burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

a. the total quantity of alternative fuel fluff material burned (tons or pounds);

b. a description of the raw material constituent(s) of the alternative fuel fluff material burned;

c. the average sulfur content (percent) of the alternative fuel fluff material burned;

d. the average heat content (Btu/pound) of the alternative fuel fluff material burned; and

e. the average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from the alternative fuel fluff material burned.

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

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

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

a. each exceedance of the total combined operating rate limitation specified in c)(1);

b. each exceedance of the alternative fuel fluff material co-firing percentage limitation specified in c)(4); and

c. all exceedances of the rolling, 12-month emission limitation for CO.

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

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

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

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

i. the facility name and address;

ii. the manufacturer and model number of the continuous opacity monitor;

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

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

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

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

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

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

ix. the reason (if known) and the corrective actions taken (if any) for each event in vii. and viii. above.

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.

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

(5) 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 appropriate Ohio EPA District Office or local air agency, documenting all instances of CO emissions in excess of any applicable limit specified in this permit. 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).

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 operating time (hours) of the emissions unit;

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

vii. results and dates of quarterly cylinder gas audits;

viii. 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));

ix. 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;

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

xi. 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

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

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

* 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.

(6) The permittee shall notify the Hamilton County Department of Environmental Services in writing if in any three calendar year period this unit sells to a utility power distribution system an annual average of more than one-third of its potential electrical output capacity and more than 219,000 MWe-hours actual electric output (on a gross basis). This notification shall identify the cause for the exceedance and the estimated gross sales in MWe-hours and as a percentage of potential electrical capacity. This notification shall be submitted to the Hamilton County Department of Environmental Services within 60 days after the end of such three calendar year period.

(7) The permittee shall notify the Hamilton County Department of Environmental Services in writing if annual emissions from all emissions units in the Cogeneration Expansion Project, as specified in d)(16), result in a significant PE, PM_{10}, $PM_{2.5}$, NOx, CO, and/or VOC emissions increase and exceed the projected actual PE, PM_{10}, $PM_{2.5}$, NOx, CO, and VOC emissions contained in the application for PTI number 14-05962, issued January 31, 2008. This notification shall identify the cause for the significant emissions increase and the estimated PE, PM_{10}, $PM_{2.5}$, NOx, CO, or VOC emissions. This notification shall be submitted to the Hamilton County Department of Environmental Services within 60 days after the end of such year.

(8) The permittee shall notify the Hamilton County Department of Environmental Services in writing if annual emissions from all emissions units in the Alternative Fuels Project, as specified in d)(17), result in a significant PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and/or VOC emissions increase and exceed the projected actual PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC emissions contained in the application for PTI number P0106289, submitted April 20, 2010. This notification shall identify the cause for the significant emissions increase and the estimated PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, or VOC emissions. This notification shall be submitted to the Hamilton County Department of Environmental Services within 60 days after the end of such year.

(9) 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.

f) Testing Requirements

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

a. Emission Limitations:

CO emissions shall not exceed 150 ppmvd, 0.15 pound per mmBtu of actual heat input, and 275.9 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Ongoing compliance with the CO emission limitations for this emissions unit when co-firing coal with alternative fuel shall be demonstrated through the data collected as required in d)(10) of the terms and conditions of this permit; and

through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

The annual emission rate is based upon the emissions unit's maximum rated heat input capacity of 420 mmBtu per hour at the allowable CO emissions rate of 0.15 pound per mmBtu for 8,760 hours per year. Compliance with the rolling 12-month CO emission limitation shall be demonstrated by the CO emissions record keeping as specified in d)(10) and d)(14).

b. Emission Limitations:

When co-firing coal with alternative fuel fluff material,

PM_{10} emissions shall not exceed 0.042 grain/dscf; and

$PM_{2.5}$ emissions shall not exceed 0.024 grain/dscf.

Applicable Compliance Method:

The emission limitations specified above are based upon compliance with the allowable particulate emissions (PE) rate of 0.116 pound per mmBtu and the calculated PM_{10} and $PM_{2.5}$ filterable percentage of the total allowable PE rate based on AP-42 emission factors found in Sections 1.1 and 1.6 and the co-firing fuel proportion of 70% coal and 30% alternative fuel. Compliance with these emission limitations shall be demonstrated through the PE testing required in f)(3) below, applying the appropriate AP-42 cumulative particulate size distribution and size-specific emissions factors found in Section 1.1 for coal combustion and Section 1.6 for wood combustion, and compliance with the co-firing operational limitation in c)(4).

c. Emission Limitation:

When co-firing coal with alternative fuel fluff material,

VOC emissions shall not exceed 0.007 pound per mmBtu of actual heat input.

Applicable Compliance Method:

The emission limitation specified above is based on AP-42 emission factors found in Sections 1.1 and 1.6 and the co-firing fuel proportion of 70% coal and 30% alternative fuel. Compliance with this emission limitation shall be demonstrated through the VOC emission testing required in f)(3) below and compliance with the co-firing operational limitation in c)(4).

d. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.

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.

e. Emission Limitation:

Particulate emissions (PE) shall not exceed 0.116 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated through the particulate emission testing required in f)(3) below.

f. Emission Limitation:

SO_2 emissions shall not exceed 1.7 pounds per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation shall be determined by using the fuel analysis records required pursuant to d)(4), d)(5), d)(6), and d)(7) and the applicable equation in OAC rule 3745-18-04(F) below.

Sulfur dioxide emissions from solid fuel samples shall be calculated as follows:

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

Where,

ER = the emission rate in pounds of sulfur dioxide per mmBtu;

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

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

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

(2) Within 60 days after commencing operation of this emissions unit as described in the Alternative Fuels Project identified in this permit to install, 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 ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or 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 appropriate Ohio EPA District Office or 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 ORC section 3704.03(I).

(3) 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 as described in the Alternative Fuels Project identified in this permit to install; unless otherwise approved by Hamilton County Department of Environmental Services 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 particulates (PE) and VOC when co-firing coal with alternative fuel fluff material as specified in b)(1)b. and b)(1)d.;

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

i. 40 CFR Part 60, Appendix A, Methods 1 through 4; and

ii. 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B)(9) for PE;

iii. 40 CFR Part 60, Appendix A, Method 25 for VOC.

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

d. the tests shall be conducted while the emissions unit is operating at or near its maximum capacity, co-firing at or near 30% alternative fuel fluff material, as a percentage of total heat input, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency;

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

f. Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report. The request may be granted, where warranted, if submitted prior to testing and with prior approval from the Hamilton County Department of Environmental Services.

(4) After 3 months of operation co-firing alternative fuel in this emissions unit, the permittee shall submit a written report of actual NOx emissions in order to verify the permittee-supplied emission factor of 0.23 pound NOx per mmBtu which demonstrates that the Alternative Fuels Project does not increase NOx emissions. The NOx emissions report shall contain the following information for the 3-month period:

a. the facility name and address;

b. the manufacturer and model number of the existing certified continuous NOx monitor;

c. the beginning and ending dates of the 3-month period;

d. the total operating time (hours) of the emissions unit when co-firing alternative fuel;

e. the total operating time of the existing certified continuous NOx monitoring system while the emissions unit was in operation and co-firing alternative fuel;

f. the hourly average NO_X emissions rate when co-firing alternative fuel, in pounds per mmBtu actual heat input; and

g. a summary of any exceedances of the 0.23 pound NOx per mmBtu emissions rate provided, the reason (if known), and if any corrective actions were taken.

The written report shall be submitted to the Hamilton County Department of Environmental Services within 30 days after the end of the 3-month operating period.

g) Miscellaneous Requirements

(1) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the increase in the emissions unit’s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year as a result of the Alternative Fuels Project. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or

modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

(2) The Cogeneration Expansion Project approved under PTI number 14-05962, issued January 31, 2008, resulted in debottlenecking and/or utilization increases of several existing emissions units at the facility. The projected actual SO_2 emission increases from the existing coal-fired boilers, emissions units B010 and B020, as described in the application for PTI number 14-05962, submitted on July 20, 2007, triggered a significant increase and significant net emission increase as defined in OAC rule 3745-31-01(JJJ); therefore, emissions units B010 and B020 were subject to PSD review for SO_2 emissions under New Source Review (NSR) major modification requirements.

The permittee provided a PSD Assessment and Modeling Analysis for the existing coal-fired boilers with the application for PTI number 14-05962, submitted on July 20, 2007, and revised on September 26, 2007. The SO_2 emission increases from the boilers did not exceed the existing allowable emission limitations which demonstrated compliance with the PSD requirements, OAC rules 3745-31-10 through 3745-31-20.

(3) The permittee's Alternative Fuels Project (AFS Project) proposes to utilize an alternative fuel stream in their cogeneration facility, which consists of existing coal-fired boilers and steam turbine systems. The AFS Project will co-fire coal with alternative fuel in a pulverized coal-boiler (emissions unit B010) and will fire 100% alternative fuel in a spreader stoker boiler (emissions unit B020). The AFS Project includes physical and/or operational modifications to both boilers to accommodate the alternative fuels. The projected actual CO emission increases from emissions units B010 and B020, as described in the application for PTI number P0106289 submitted on April 20, 2010, triggered a significant increase and significant net emission increase as defined in OAC rule 3745-31-01(JJJ); therefore, emissions units B010 and B020 were subject to PSD review and BACT requirements for CO emissions under NSR major modification requirements in this permitting action.

The permittee provided a PSD Assessment and Modeling Analysis for the existing coal-fired boilers with the application for PTI number P0106289, submitted on April 20, 2010. The CO emission increases as a result of the AFS Project demonstrated compliance with the PSD requirements, OAC rules 3745-31-10 through 3745-31-20.

(4) The terms and conditions in this permit to install shall supersede the terms and conditions for emissions unit B010 contained in PTI number 14-05962, issued on January 31, 2008.

2. B020, Boiler #14 CH11003

Operations, Property and/or Equipment Description:

249 mmBtu/hour spreader stoker coal and alternative fuel-fired boiler, controlled by an electrostatic precipitator (ESP) – NSR Major Modification

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)(17) and d)(18).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through 3745-31-20 Alternative Fuels Project - Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT) Cogeneration Expansion Project - Prevention of Significant Deterioration (PSD)	When combusting alternative fuel pellets: Carbon monoxide (CO) emissions shall not exceed 150 ppmvd, 0.23 pound per mmBtu, and 250.8 tons per year (TPY) as a rolling, 12-month summation. See b)(2)a., b)(2)b., d)(16) and g)(2). When combusting coal: See b)(2)c., d)(15), and g)(1).
b.	OAC rule 3745-31-05(A)(3) Best Available Technology (BAT) Note that BAT limitations of this term were established originally under PTI 14-03948 issued in 1996, and are carried forward into the most recent PTI 14-05962 modification issued in 2008 for the Cogen Project as well as this permitting action.	Particulate emissions (PE) shall not exceed 126.5 TPY. When combusting coal: Particulate matter 10 microns and less in diameter (PM_{10}) shall not exceed 0.104 pound per mmBtu of actual heat input* and 113.9 TPY*; Particulate matter 2.5 microns and less in

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	See b)(2)d.	diameter ($PM_{2.5}$) shall not exceed 0.071 pound per mmBtu of actual heat input* and 77.2 TPY*. Sulfur dioxide (SO_2) emissions shall not exceed 1854 TPY. Nitrogen oxides (NOx) emissions shall not exceed 163.5 pounds per hour* and 716 TPY*. Carbon monoxide (CO) emissions shall not exceed 51.0 pounds per hour* and 223 TPY*. Volatile organic compound (VOC) emissions shall not exceed 1.12 pounds per hour* and 4.9 TPY*. * The emission limitations outlined above are based on the emissions unit's potential to emit when combusting coal. Therefore, no records are required to demonstrate compliance with these limitations. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-17-10(C), and OAC rule 3745-18-15(L).
c.	ORC 3704.03(T) Best Available Technology (BAT)	When combusting alternative fuel pellets: Particulate matter 2.5 microns and less in diameter ($PM_{2.5}$) shall not exceed 0.030 grain (gr) per dry standard cubic foot (dscf); and Volatile organic compound (VOC) emissions shall not exceed 0.017 pound per mmBtu of actual heat input. The requirements of this rule also include compliance with the requirements of BACT under OAC rule 3745-31-15.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-10(C)(1) Figure I	Particulate emissions (PE) shall not exceed 0.116 pound per mmBtu of actual heat input.
f.	OAC rule 3745-18-15(L)	Sulfur dioxide (SO_2) emissions shall not exceed 1.7 pounds per mmBtu of actual heat input. See c)(1).
g.	OAC Chapter 3745-103 Acid Rain Permits and Compliance	Exempt. See b)(2)i.
h.	40 CFR Part 60, Subpart Db Standards of Performance for New Stationary Sources (NSPS), Industrial, Commercial, and Institutional Steam Generating Units	Exempt. See b)(2)j.
i.	40 CFR Part 60, Subpart Eb Standards of Performance for New Stationary Sources (NSPS), Large Municipal Waste Combustors	Exempt. See b)(2)k. and c)(3).
j.	40 CFR Part 60, Subpart CCCC Standards of Performance for New Stationary Sources (NSPS), Commercial and Industrial Solid Waste Incineration Units	See b)(2)l.
k.	40 CFR Part 63, Subpart DDDDD National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process heaters	See b)(2)m.

(2) Additional Terms and Conditions

a. Based on the 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 alternative fuel fluff material under the Alternative Fuels Project:

i. Optimize combustion efficiency by the use of over-fire air with good combustion practices to minimize CO emissions;

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

b. The maximum allowable CO emissions rate of this emissions unit will not cause or contribute to a violation of the National Ambient Air Quality Standard (NAAQS) based upon the permittee's air dispersion modeling information submitted on April 20, 2010, to Ohio EPA for the Alternative Fuels Project.

c. The maximum allowable SO_2 emissions rate of this emissions unit will not cause or contribute to a violation of a National Ambient Air Quality Standard (NAAQS) and/or Prevention of Significant Deterioration (PSD) increment based upon the permittee's air dispersion modeling information submitted on September 26, 2007, to Ohio EPA for the Cogeneration Expansion Project.

d. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations and compliance with all applicable regulations, record keeping, and reporting required by this permit that are associated with the above OAC rule 3745-31-05(A)(3) limitations and requirements when combusting coal.

The above-specified emission limitations under OAC rule 3745-31-05(A)(3) represent existing best available technology (BAT) requirements established under the prior permitting actions for this emissions unit.

e. 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 when combusting alternative fuel pellets.

The above-specified limitations under ORC 3704.03(T) represent best available technology (BAT) requirements that were triggered as a result of the NSR major modification in this permit action for the Alternative Fuels Project which increased potential emissions of CO, $PM_{2.5}$, and VOC when combusting alternative fuel pellets in this emissions unit.

f. 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.

g. Each continuous carbon monoxide (CO) monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance

Specification 4 or 4a. 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). 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 quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

h. The continuous opacity and CO monitoring systems consist 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.

i. This emissions unit is exempt from the acid rain program requirements in OAC Chapter 3745-103 pursuant to the gross electric sales exemption threshold for a cogeneration facility specified in OAC rule 3745-103-02(B)(4)(b). The permittee shall maintain records as specified in d)(14) to demonstrate compliance with the following exemption threshold:

   i. average annual electric sales to the utility power distribution system shall not exceed more than one-third of potential electrical output capacity; or

   ii. actual electric output (on a gross basis) shall not exceed 219,000 MWe-hours.

j. This emissions unit is exempt from the steam generating unit requirements in 40 CFR Part 60, Subpart Db for affected units that commence construction, modification, or reconstruction after 6/19/1984. The Alternative Fuels Project, as proposed in this permitting action, does not result in a modification or reconstruction of this emissions unit pursuant to the definitions of modification and reconstruction specified in 40 CFR Part 60.14 and 60.15. This emissions unit is undergoing a physical and/or operational change as a result of the Alternative Fuels Project; however, the change does not result in an increase in the emission rate of any pollutant subject to regulation under Subpart Db (i.e., filterable particulate matter, sulfur dioxide, and nitrogen oxides).

k. This emissions unit is exempt from the municipal waste combustor requirements in 40 CFR Part 60, Subpart Eb pursuant to the definitions of municipal solid waste and municipal waste combustor specified in 40 CFR Part 60.51b. The alternative fuel pellets are manufactured from industrial process waste paper, paper mill sludge, and wood wastes (clean wood) which are materials specifically excluded from the definition of municipal solid waste.

In order to demonstrate that this emissions unit is exempt from 40 CFR Part 60, Subpart Eb, the permittee shall comply with the monitoring and record keeping requirements as specified in d)(6) and d)(7) to ensure that the alternative fuel pellets do not contain discarded waste constituents that would classify the fuel as municipal solid waste.

l. This emissions unit may be subject to the Standards of Performance for Commercial and Industrial Solid Waste Incinerations (CISWI) Units, 40 CFR Part 60, Subpart CCCC. U.S. EPA initially promulgated these standards under Section 129 of the Clean Air Act (CAA) on December 1, 2000, with a compliance date of June 1, 2001. On July 30, 2007, the definition of a CISWI unit was vacated by mandate of the U.S. Court of Appeals for the District of Columbia Circuit. On June 4, 2010, U.S. EPA proposed amendments to the CISWI unit definition and standard which remove the prior exemption for units that combust non-traditional fuel (industrial solid waste) for the purposes of energy recovery. Under the June 4, 2010 U.S. EPA proposed amendments to Subpart CCCC, the permittee's Alternative Fuel Project in this permitting action may classify emissions units B010 and B020 as CISWI units subject to Subpart CCCC, unless the permittee meets the exemption requirements for a cogeneration facility pursuant to 60.2020(f). Upon promulgation of the amendments to Subpart CCCC, the permittee shall comply with the requirements of Subpart CCCC, if applicable, including initial reporting and notification requirements pursuant to Table 4 in Subpart CCCC, or the permittee shall comply with the criteria under 60.2020(f) to demonstrate that the units are exempt cogeneration facilities.

m. This emissions unit may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD. U.S. EPA initially promulgated these standards under CAA Section 112 on September 13, 2004, with a compliance date of September 13, 2007. On July 30, 2007, these standards were vacated by mandate of the U.S. Court of Appeals for the District of Columbia Circuit. On June 4, 2010, U.S. EPA proposed revised standards which may exclude sources subject to the CAA Section 129 rules (i.e. NSPS Subpart CCCC) that combust non-traditional fuel (industrial solid waste) for energy recovery. Until such time as a revised MACT standard is promulgated that identifies whether emissions units B010 and B020 are affected sources after commencing operation under the Alternative Fuels Project, the permittee shall comply with the Ohio Air Toxics Policy, pursuant to ORC 3704.03 (F), as specified in Section C. of this permit. Upon promulgation of the revised MACT standard for sources in this category, the permittee shall determine if they are subject to Subpart DDDDD and shall submit a copy of the Initial Notification to Hamilton County Department of Environmental Services, if applicable.

c) Operational Restrictions

(1) The total combined daily average operating rate for emissions units B010 and B020 shall not exceed 603 mmBtu per hour.

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

(3) The permittee shall combust only coal and alternative fuel pellets in this emissions unit. For the purposes of this permit, alternative fuel pellets shall be fuel manufactured from industrial process waste paper, paper mill sludge, and wood waste (clean wood). The permittee may not alter the raw material waste constituents of the manufactured alternative fuel pellets without prior approval from OhioEPA.

(4) The alternative fuel pellets burned in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of sulfur dioxide per million Btu of heat content, complies with the allowable sulfur dioxide emission limitation contained in this permit.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than coal and alternative fuel pellets, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(2) The permittee shall maintain daily records of the total combined heat input, total combined hours of operation (calculated by the sum of the operating hours for each unit), and the daily average operating rate, in mmBtu per hour, for emissions units B010 and B020. To determine the heat input, the permittee shall continuously monitor and record the steam flow rate from this emissions unit.

(3) This permittee shall collect, or require the coal supplier to collect, a representative sample of coal from each shipment of coal which is received for burning in this emissions unit. The coal sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each month, the representative samples of coal from all shipments of coal which were received during that month shall be combined into one composite sample. This combination may be a physical composite or a weighted average of the test data for the individual shipments.

Each monthly composite sample of coal shall be analyzed for sulfur content (percent) and heat content (Btu/pound of coal). The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the most recent version of the following ASTM methods: ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Hamilton County Department of Environmental Services.

(4) The permittee shall collect, or require the alternative fuel supplier to collect, a representative sample of the alternative fuel material from each shipment of alternative fuel which is received for burning in this emissions unit. The alternative fuel sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each month, the representative samples of alternative fuel from all shipments of alternative fuel which were received during that month shall be combined into one composite sample. This combination may be a physical composite or a weighted average of the test data for the individual shipments.

Each monthly composite sample of alternative fuel shall be analyzed for sulfur content (percent) and heat content (Btu/pound of fuel). The analytical methods to be used to determine the sulfur content and heat content shall be the most recent version of: ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Hamilton County Department of Environmental Services.

(5) The permittee shall maintain monthly records of the total quantity of coal received, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds per mmBtu), for all shipments of coal during each calendar month. The sulfur dioxide emission rate is based upon a volume-weighted average as calculated per the equation in OAC rule 3745-18-04(F)(1).

(6) The permittee shall maintain monthly records of the total quantity of alternative fuel burned, the name of the supplier, the raw material constituents used to produce the alternative fuel pellets, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds per mmBtu), for all alternative fuel pellets combusted during each calendar month. The sulfur dioxide emission rate is based upon a volume-weighted average as calculated per the equation in OAC rule 3745-18-04(F)(1).

(7) The permittee shall develop, implement, and maintain an Alternative Fuel Procurement and Monitoring Plan (AFPMP) to ensure that only alternative fuel, as described in c)(3), is being burned in this emissions unit and to prevent unacceptable waste from being burned. The plan shall, at a minimum, specify the following:

a. A description of the alternative fuel to be burned, including the raw materials used to produce the fuel;

b. A description of prohibited waste constituents that would classify the alternative fuel as municipal solid waste;

c. Inspection and sorting procedures and protocol used to eliminate prohibited fuels and minimize unacceptable fuels;

d. Auditing procedures including records of fuel specification, quality control, and batch identification; and

e. Notification and approval procedures for changes to fuel constituents.

The AFPMP and related records must be kept onsite and available for inspection during regular office hours. The permittee shall submit a copy of the AFPMP to Hamilton County Department of Environmental Services 30 days prior to commencing operation of the Alternative Fuels Project.

(8) 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 Specification 4 or 4a. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(9) 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 units of ppmvd as a 3-hour block averaging period;

c. emissions of CO in units of pounds per mmBtu of actual heat input as a 3-hour block averaging period;

d. results of quarterly cylinder gas audits;

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

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

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

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

i. 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,

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

(10) The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of particulate emissions from the common stack serving emissions units B010 and B020. The opacity of the visible particulate emissions from emissions units B010 and B020 shall be monitored in the combined stack for the two boilers and the visible particulate emission limitation specified in b)(1)d. applies to each individual boiler as monitored at the common stack. An exceedance of the visible emission limitation in b)(1)d. as measured at the common stack does not necessarily constitute an exceedance of the emissions limitation for both boilers. Such 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 or less) 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, and

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

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

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

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

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

(13) The permittee shall collect and record the following information on a monthly basis for this emissions unit:

a. the monthly CO emissions, in tons (i.e. a summation of the CO CEM data for the calendar month); and

b. the updated rolling, 12-month summation of CO emissions, in tons. This shall include information for the current month and the preceding eleven calendar months.

(14) The permittee shall maintain annual records, on a calendar year basis, of the following information to demonstrate that this emissions unit is not an affected unit under the acid rain program:

a. the potential electrical output capacity of emissions units B010 and B020;

b. the average electric sales to the utility power distribution system;

c. the percentage of average electric sales as compared to the potential electrical output capacity; and

d. the total actual electric output (on a gross basis), in MWe-hours.

(15) The permittee shall maintain the following records for emissions units B010, B020, F003, P019, and all de minimus emissions units (i.e. cooling tower) associated with the Cogeneration Expansion Project, as described in the application for Permit to Install (PTI) number 14-05962, issued January 31, 2008, in order to demonstrate that the Cogeneration Expansion Project did not trigger major modification for PE, PM_{10}/$PM_{2.5}$, NOx, CO, and VOC:

a. the projected actual annual emissions for PE, PM_{10}, $PM_{2.5}$, NOx, CO, and VOC, in tons per year, from the Cogeneration Expansion Project; and

b. the total actual annual emissions of PE, PM_{10}, $PM_{2.5}$, NOx, CO, and VOC, in tons per year, from emissions units B010, B020, F003, P019, and all de minimus emissions units (i.e. cooling tower) associated with the Cogeneration Expansion Project, combined, for the 5 calendar years after operation of the Cogeneration Expansion Project commenced on April 17, 2009.

(16) The permittee shall maintain the following records for emissions units B010, B020, and all de minimus emissions units (i.e. pellet plant operations) associated with the Alternative Fuels Project, as described in the application for Permit to Install (PTI) number P0106289, submitted April 20, 2010, in order to demonstrate that the Alternative Fuels Project does not trigger major modification for PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC:

a. the projected actual annual emissions for PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC, in tons per year, from the Alternative Fuels Project; and

b. the total actual annual emissions of PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC, in tons per year, from emissions units B010, B020, and all de minimus emissions units (i.e. pellet plant operations) associated with the Alternative Fuels Project, combined, for the 5 calendar years after commencing operation of the Alternative Fuels Project.

(17) The permit to install for this emissions unit B020 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: Hydrogen Chloride

TLV (ug/m3): 2,198

Maximum Hourly Emission Rate (lbs/hr): 39.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7.6

MAGLC (ug/m3): 52.1

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.).

(18) 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 quarterly reports on the quality and quantity of coal received for burning in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

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

b. the average sulfur content (percent) of the coal received;

c. the average heat content (Btu/pound) of the coal received; and

d. the average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from the coal received.

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

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

(2) The permittee shall submit quarterly reports on the quality and quantity of alternative fuel pellets burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

a. the total quantity of alternative fuel pellets burned (tons or pounds);

b. a description of the raw material constituent(s) of the alternative fuel pellets burned;

c. the average sulfur content (percent) of the alternative fuel pellets burned;

d. the average heat content (Btu/pound) of the alternative fuel pellets burned; and

e. the average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from the alternative fuel pellets burned.

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

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

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

a. each exceedance of the total combined operating rate limitation specified in c)(1); and

b. all exceedances of the rolling, 12-month emission limitation for CO.

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

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

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

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

i. the facility name and address;

ii. the manufacturer and model number of the continuous opacity monitor;

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

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

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

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

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

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

ix. the reason (if known) and the corrective actions taken (if any) for each event in vii. and viii. above.

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.

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

(5) 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 appropriate Ohio EPA District Office or 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).

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 operating time (hours) of the emissions unit;

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

vii. results and dates of quarterly cylinder gas audits;

viii. 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));

ix. 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;

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

xi. 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

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

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

* 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.

(6) The permittee shall notify the Hamilton County Department of Environmental Services in writing if in any three calendar year period this unit sells to a utility power distribution system an annual average of more than one-third of its potential electrical output capacity and more than 219,000 MWe-hours actual electric output (on a gross basis). This notification shall identify the cause for the exceedance and the estimated gross sales in MWe-hours and as a percentage of potential electrical capacity. This notification shall be submitted to the Hamilton County Department of Environmental Services within 60 days after the end of such three calendar year period.

(7) The permittee shall notify the Hamilton County Department of Environmental Services in writing if annual emissions from all emissions units in the Cogeneration Expansion Project, as specified in d)(15), result in a significant PE, PM_{10}, $PM_{2.5}$, NOx, CO, and/or VOC emissions increase and exceed the projected actual PE, PM_{10}, $PM_{2.5}$, NOx, CO, and VOC emissions contained in the application for PTI number 14-05962, issued

January 31, 2008. This notification shall identify the cause for the significant emissions increase and the estimated PE, PM_{10}, $PM_{2.5}$, NOx, CO, or VOC emissions. This notification shall be submitted to the Hamilton County Department of Environmental Services within 60 days after the end of such year.

(8) The permittee shall notify the Hamilton County Department of Environmental Services in writing if annual emissions from all emissions units in the Alternative Fuels Project, as specified in d)(16), result in a significant PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and/or VOC emissions increase and exceed the projected actual PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, and VOC emissions contained in the application for PTI number P0106289, submitted April 20, 2010. This notification shall identify the cause for the significant emissions increase and the estimated PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, or VOC emissions. This notification shall be submitted to the Hamilton County Department of Environmental Services within 60 days after the end of such year.

(9) 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.

f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.

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.

b. Emission Limitations:

PE shall not exceed 0.116 pound per mmBtu of actual heat input; and

PE shall not exceed 126.5 TPY.

Applicable Compliance Methods:

Compliance with the mass allowable emissions limitation in pound per mmBtu shall be demonstrated through the particulate emission testing required in f)(3) below. The annual emission rate is based upon the emissions unit's maximum rated heat input capacity of 249 mmBtu per hour at the allowable PE rate of 0.116 pound per mmBtu for 8,760 hours per year. Compliance with the annual

emission limitation shall be demonstrated by compliance with the pound per mmBtu PE rate above.

c. Emission Limitations:

SO_2 emissions shall not exceed 1.7 pounds per mmBtu of actual heat input; and

SO_2 emissions shall not exceed 1854 TPY.

Applicable Compliance Methods:

Compliance with the mass allowable emission limitation in pound per mmBtu shall be determined by using the fuel analysis records required pursuant to d)(3), d)(4), d)(5), and d)(6) and the applicable equation in OAC rule 3745-18-04(F) below. The annual emission rate is based upon the emissions unit's maximum rated heat input capacity of 249 mmBtu per hour at the allowable SO_2 rate of 1.7 pounds per mmBtu for 8,760 hours per year. Compliance with the annual emission limitation shall be demonstrated by compliance with the pound per mmBtu SO_2 rate above.

Sulfur dioxide emissions from solid fuel samples shall be calculated as follows:

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

Where,

ER = the emission rate in pounds of sulfur dioxide per mmBtu;

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

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

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

d. Emission Limitations:

PM_{10} shall not exceed 0.104 pound per mmBtu of actual heat input and 113.9 TPY, when combusting coal.

Applicable Compliance Method:

The PM_{10} emission limitations are based upon the emissions unit's potential to emit when combusting coal. Compliance shall be determined by emission factors found in US EPA AP-42 Section 1.1 (dated 9/98) or the permittee's most recent emissions test data.

The permittee-supplied emissions factor of 0.086 lb of PM_{10}/mmBtu when combusting alternative fuel pellets which demonstrates that the Alternative Fuels Project does not increase PM_{10} emissions may be verified by the PE testing required in f)(3) below and the calculated PM_{10} filterable percentage of the total

allowable PE rate using AP-42 emissions factors found in Section 1.6 for wood combustion.

e. Emission Limitations:

$PM_{2.5}$ shall not exceed 0.071 pound per mmBtu of actual heat input and 77.2 TPY, when combusting coal; and

$PM_{2.5}$ shall not exceed 0.030 grain/dscf, when combusting alternative fuel pellets.

Applicable Compliance Methods:

The $PM_{2.5}$ emission limitations when combusting coal are based upon the emissions unit's potential to emit. Compliance shall be determined by emission factors found in US EPA AP-42 Section 1.1 (dated 9/98) or the permittee's most recent emissions test data.

The $PM_{2.5}$ emission limitation when combusting alternative fuel pellets is based upon the allowable particulate emissions (PE) rate of 0.116 pound per mmBtu and the calculated $PM_{2.5}$ filterable percentage of the total allowable PE rate using AP-42 emissions factors found in Section 1.6 for wood combustion. Compliance with the $PM_{2.5}$ emission limitation when combusting alternative fuel pellets shall be demonstrated through the PE testing required in f)(3) below and applying the appropriate AP-42 cumulative particulate size distribution and size-specific emissions factors found in Section 1.6 for wood combustion.

f. Emission Limitations:

NOx emissions shall not exceed 163.5 pounds per hour and 716 TPY, when combusting coal.

Applicable Compliance Method:

The NOx emission limitations are based upon the emissions unit's potential to emit when combusting coal. Compliance shall be determined by emission factors found in US EPA AP-42 Section 1.1 (dated 9/98) or the permittee's most recent emissions test data.

If required, the permittee shall demonstrate compliance with the NOx emission limitations when combusting coal through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

g. Emission Limitations:

CO emissions shall not exceed 150 ppmvd, 0.23 pound per mmBtu, and 250.8 TPY, as a rolling, 12-month summation, when combusting alternative fuel pellets; and

CO emissions shall not exceed 51.0 pounds per hour and 223 TPY, when combusting coal.

Applicable Compliance Methods:

Ongoing compliance with the CO emission limitations when combusting alternative fuel pellets shall be demonstrated through the data collected as required in d)(9) of the terms and conditions of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

The annual emission rate when combusting alternative fuel is based upon the emissions unit's maximum rated heat input capacity of 249 mmBtu per hour at the allowable CO emissions rate of 0.23 pound per mmBtu for 8,760 hours per year. Compliance with the rolling 12-month CO emission limitation shall be demonstrated by compliance with the CO emissions record keeping as specified in d)(9) and d)(13).

The CO emission limitations when combusting coal are based upon the emissions unit's potential to emit. Compliance shall be determined by emission factors found in US EPA AP-42 Section 1.1 (dated 9/98) or the permittee's most recent emissions test data. If required, the permittee shall demonstrate compliance with the CO emission limitation when combusting coal through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

h. VOC Emission Limitations:

VOC emissions shall not exceed 1.12 pounds per hour and 4.9 TPY, when combusting coal; and

VOC emissions shall not exceed 0.017 pound per mmBtu of actual heat input, when combusting alternative fuel pellets.

Applicable Compliance Method:

The VOC emission limitations when combusting coal are based upon the emissions unit's potential to emit. Compliance shall be determined by emission factors found in US EPA AP-42 Section 1.1 (dated 9/98) or the permittee's most recent emissions test data. If required, the permittee shall demonstrate compliance with the VOC emission limitations when combusting coal through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

The VOC emission limitation when combusting alternative fuel pellets is based upon the AP-42 emission factor found in Section 1.6 for wood combustion. Compliance with the VOC emission limitation when combusting alternative fuel pellets shall be demonstrated through the VOC emission testing required in f)(3) below.

(2) Within 60 days after commencing operation of this emissions unit as described in the Alternative Fuels Project identified in this permit to install, 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 ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or 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 appropriate Ohio EPA District Office or 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 ORC section 3704.03(I).

(3) 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 as described in the Alternative Fuels Project identified in this permit to install; unless otherwise approved by Hamilton County Department of Environmental Services 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 particulates (PE) and VOC when combusting alternative fuel pellets as specified in b)(1)c. and b)(1)e.;

c. the emission testing shall be conducted to verify the permittee-supplied emission factor of 0.37 lb of NOx/mmBtu when combusting alternative fuel pellets which demonstrates that the Alternative Fuels Project does not increase NOx emissions;

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

i. 40 CFR Part 60, Appendix A, Methods 1 through 4; and

ii. 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B)(9) for PE;

iii. 40 CFR Part 60, Appendix A, Method 25 for VOC; and

iv. 40 CFR Part 60, Appendix A, Method 7 for NOx.

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

e. the tests shall be conducted while the emissions unit is operating at or near its maximum capacity and combusting alternative fuel pellets, unless otherwise

specified or approved by the appropriate Ohio EPA District Office or local air agency;

f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

g. Personnel from the Hamilton County Department of Environmental Services 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.

h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report. The request may be granted, where warranted, if submitted prior to testing and with prior approval from the Hamilton County Department of Environmental Services.

g) Miscellaneous Requirements

(1) The Cogeneration Expansion Project approved under PTI #14-05962, issued January 31, 2008, resulted in debottlenecking and/or utilization increases of several existing emissions units at the facility. The projected actual SO2 emissions increases from the existing coal-fired boilers, emissions units B010 and B020, as described in the application for PTI number 14-05962, submitted on July 20, 2007, triggered a significant increase and significant net emission increase as defined in OAC rule 3745-31-01(JJJ); therefore, emissions units B010 and B020 were subject to PSD review for SO2 emissions under New Source Review (NSR) major modification requirements.

The permittee provided a PSD Assessment and Modeling Analysis for the existing coal-fired boilers with the application for PTI number 14-05962, submitted on July 20, 2007, and revised on September 26, 2007. The SO2 emission increases from the boilers did not exceed the existing allowable emission limitations which demonstrated compliance with the PSD requirements, OAC rules 3745-31-10 through 3745-31-20.

(2) The permittee's Alternative Fuels Project (AFS Project) proposes to utilize an alternative fuel stream in their cogeneration facility, which consists of existing coal-fired boilers and steam turbine systems. The AFS Project will co-fire coal with alternative fuel in a pulverized coal-boiler (emissions unit B010) and will fire 100% alternative fuel in a spreader stoker boiler (emissions unit B020). The AFS Project includes physical and/or operational modifications to both boilers to accommodate the alternative fuels. The projected actual CO emissions increases from emissions units B010 and B020, as described in the application for PTI number P0106289 submitted on April 20, 2010,

triggered a significant increase and significant net emission increase as defined in OAC rule 3745-31-01(JJJ); therefore, emissions units B010 and B020 were subject to PSD review and BACT requirements for CO emissions under NSR major modification requirements in this permitting action.

The permittee provided a PSD Assessment and Modeling Analysis for the existing coal-fired boilers with the application for PTI number P0106289, submitted on April 20, 2010. The CO emission increases as a result of the AFS Project demonstrated compliance with the PSD requirements, OAC rules 3745-31-10 through 3745-31-20.

(3) The terms and conditions in this permit to install shall supersede the terms and conditions for emissions unit B020 contained in PTI number 14-05962, issued on January 31, 2008.