State of Ohio Environmental Protection Agency

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

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

Application No: 16-02418
Fac ID: 1677010757
DATE: 10/25/2005

Akron Thermal Energy Corp
Jim Benson
226 Opportunity Pkwy
Akron, OH 443072232

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

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

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

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

Sincerely,

Michael W. Ahern

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

CC: **USEPA** **ARAQMD**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 10/25/2005**
Terms and Conditions	**Effective Date: 10/25/2005**

FINAL PERMIT TO INSTALL 16-02418

Application Number:	16-02418
Facility ID:	1677010757
Permit Fee:	**$2000**
Name of Facility:	Akron Thermal Energy Corp
Person to Contact:	Jim Benson
Address:	226 Opportunity Pkwy Akron, OH 443072232

Location of proposed air contaminant source(s) [emissions unit(s)]:
226 Opportunity Pkwy
Akron, **Ohio**

Description of proposed emissions unit(s):
Modification to Allow Combustion of Engineered Fuel in B003/B004.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Joseph P. Koncelik

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, 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:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to

the appropriate Ohio EPA District Office or local air agency. 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 B.8 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency 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.

iv. If this permit is for an emissions unit located at a Title V facility, then 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.

2. Scheduled Maintenance/Malfunction Reporting

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

3. 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.

4. Title IV Provisions

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

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

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

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. 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.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. 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.

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

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

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

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

iv. As authorized by the Act, sample or monitor at reasonable times

substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

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

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

10. Permit-To-Operate Application

a. If 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).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

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.

2. 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 appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (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.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing 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 modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

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.

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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

C. Permit-To-Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
PE	30.91
PM-10	26.49
NOx	132.45
SO2	123.6
CO	66.23
VOC	35.32
H2SO4	16.0
dioxins/furans	4.42×10^{-6}
HCl	39.74
HF	0.88
VC	0.26
Be	0.00024
Pb	0.22
Hg	0.004
Cd	0.0026
Mn	0.22

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

1. The permittee's existing emissions units are 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 which include, but are not limited to the following:

   for existing large solid fuel:

   particulate matter - 0.07 lb per million Btu of hear input; or (0.001 lb per million Btu of heat
   input) (or Total Selected Metals)

   hydrogen chloride - 0.09 lb per million Btu of heat input

   mercury - 0.000009 lb per million Btu of heat input.

2. The permittee shall achieve total, on-going compliance with all applicable requirements of 40 CFR Part 63, Subpart DDDDD no later than September 13, 2007.

3. Given the applicability of 40 CFR Part 63, Subpart DDDDD, the permittee must also comply with applicable provisions of 40 CFR Part 63, Subpart A as referenced in Table 10 of 40 CFR Part 63, Subpart DDDDD (see Attachment 1).

   The permittee shall comply with the requirements contained in Tables 1 through 10 in accordance with 40 CFR Part 63, Subpart DDDDD which are included in the text of Attachment 1 hereto, and are hereby incorporated into this permit as if fully written.

4. Title 40: Protection of Environment
   PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

   Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

   Source: 69 FR 55253, Sept. 13, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

5. § 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2 or §63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in §63.7491.

6. § 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in §63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source as defined in §63.7575.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in §63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

7. § 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB, subpart Cb or subpart Eb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.

(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (e.g., hazardous waste boilers).

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A hot water heater as defined in this subpart.

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document, entitled "National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards," (EPA–453/R–01–005).

(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.

(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).

(n) Temporary boilers as defined in this subpart.

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

10. § 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.

(d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

11. Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in §63.7575.

12. § 63.7500 What emission limits, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under §63.7507.

(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under §63.8(f).

(b) As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

13. General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).

(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days before your initial performance

evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

14. § 63.7506 Do any boilers or process heaters have limited requirements?

(a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 to this subpart.

(1) To demonstrate initial compliance, you must include a signed statement in the Notification of Compliance Status report required in §63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in §63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in §63.9(b) (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(2) Existing large and limited use liquid fuel units.

(3) New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.

(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in §63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part.

(1) Existing small solid fuel boilers and process heaters.

(2) Existing small liquid fuel boilers and process heaters.

(3) Existing small gaseous fuel boilers and process heaters.

(4) New or reconstructed small gaseous fuel units.

15. § 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

(a) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) In lieu of complying with the TSM emission standards in Table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A to this subpart.

16. Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart, establishing operating limits according to §63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to §63.7525.

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart and establish operating limits according to §63.7530 and Table 8 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 million Btu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 million Btu per hour or

greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to §63.7525(a).

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

17. § 63.7515 When must I conduct subsequent performance tests or fuel analyses?

(a) You must conduct all applicable performance tests according to §63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBTU per hour, you must conduct annual performance tests for carbon monoxide according to §63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(f) You must conduct a fuel analysis according to §63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in §63.7540.

(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to §63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in §63.7550.

18. § 63.7520 What performance tests and procedures must I use?

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to §63.7506(a).

(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

19. § 63.7521 What fuel analyses and procedures must I use?

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.

(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.

(1) You must submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

(iii) Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) Throughly mix and pour the entire composite sample over a clean plastic sheet.

(2) Break sample pieces larger than 3 inches into smaller sizes.

(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) Separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) Grind the sample in a mill.

(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.

20. § 63.7522 Can I use emission averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of §63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.

(b) For each existing large solid fuel boiler in the averaging group, the emission rate

achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(c) You may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (d), (e), and (f) of this section.

(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in §63.7495.

(e) You must demonstrate initial compliance according to paragraphs (e)(1) or (2) of this section.

(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

(Eq. 1) (see Attachment 1)

Where:

AveWeighted = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 2 of this section as an alternative to using equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel

boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

(Eq. 2) (see Attachment 1)

Where:

AveWeighted = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, i, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in §63.7495.

(1) For each calendar month, you must use Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

(Eq. 3) (see Attachment 1)

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

(Eq. 4) (see Attachment 1)

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sa = Actual steam generation for each calender month by boiler, i, in units of pounds.

Cf = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (g)(1) through (4).

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in §63.7520;

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to §63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing

sources; or

(ii) The inclusion of any emission source other than an existing large solid fuel boiler.

21. § 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 million Btu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in §63.7495.

(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to §63.7505(d).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in §63.8 and according to PS 4A of 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in §63.8(g)(2).

(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in §63.7495.

(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in §63.8 and according to PS 1 of 40 CFR part 60, appendix B.

(3) As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in §63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in §63.7495.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other

periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute

particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

22. § 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to §63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to §63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to §63.7506(a).

(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in §63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to §63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.

(1) You must establish the maximum chlorine fuel input (Cinput) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of

this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (Ci).

(iii) You must establish a maximum chlorine input level using Equation 5 of this section.

(Eq. 5) (see Attachment 1)

Where:

Clinput = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

Ci = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level (TSMinput) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned (Qi) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (Mi).

(iii) You must establish a baseline TSM input level using Equation 6 of this section.

(Eq. 6) (see Attachment 1)

Where:

TSMinput = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

Mi = Arithmetic average concentration of TSM in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from based fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(3) You must establish the maximum mercury fuel input level (Mercury input) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Qi) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HGi).

(iii) You must establish a maximum mercury input level using Equation 7 of this section.

(Eq. 7) (see Attachment 1)

Where:

Mercury input = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HGi = Arithmetic average concentration of mercury in fuel type, i, analyzed according to

§63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.

(i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in §63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in §63.7575, as your operating limits during the three-run performance test.

(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in §63.7575, as your operating limit during the three-run performance test.

(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in §63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to §63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could

burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.

(Eq. 8) (see Attachment 1)

Where:

P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.

(Eq. 9) (see Attachment 1)

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.

(Eq. 10) (see Attachment 1)

Where:

TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

Mi90 = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.

(Eq. 11) (see Attachment 1)

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

HGi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e).

23. Continuous Compliance Requirements

§ 63.7535 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

24. § 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

(1) Following the date on which the initial performance test is completed or is required to be completed under §§63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 9 of §63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of §63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel type or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of §63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of §63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 10 of §63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of §63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 6 of §63.7530. If the results of recalculating the maximum total selected metals input using Equation 6 of §63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 11 of §63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of §63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 7 of §63.7530. If the results of recalculating the maximum mercury input using Equation 7 of §63.7530 are higher than the maximum mercury input level established during the previous

performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to §63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.

(i) You must continuously monitor carbon monoxide according to §§63.7525(a) and 63.7535.

(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.

(iii) Keep records of carbon monoxide levels according to §63.7555(b).

(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in §63.7505(e).

(d) Consistent with §§63.6(e)and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

25. § 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in §63.7522(f) and (g);

(2) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;

(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and

(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (4) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

26. Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in §63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by §63.9(b)(2).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by §63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(c) As specified in §63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in §63.7530(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you are complying with the particulate matter emission limit

or the alternative total selected metals emission limit.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

27. § 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half

after the compliance date that is specified for your source in §63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate

compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of §63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of §63.7530, the maximum TSM input operating limit using Equation 6 of §63.7530, or the maximum mercury input operating limit using Equation 7 of §63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must

contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in §63.7505(d).

(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.

(9) A brief description of the source for which there was a deviation.

(10) A brief description of each CMS for which there was a deviation.

(11) The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

28. § 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in §63.10(b)(2) (vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

(3) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as

opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of §63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of §63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of §63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of §63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel

analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.

(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(2) Fuel use records for the days the boiler or process heater was operating.

29. § 63.7560 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

30. Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

31. § 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as

the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.7500(a) and (b) under §63.6(g).

(2) Approval of alternative opacity emission limits in §63.7500(a) under §63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(4) Approval of major change to monitoring under §63.8(f) and as defined in §63.90.

(5) Approval of major change to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

1. None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements
B003 - Unit #1, Babcock and Wilcox 180 million Btu per hour waste-to-energy boiler for steam generation, controlled with an electrostatic precipitator (ESP), combusting wood, natural gas, tire derived fuel (TDF), and refuse derived fuel (RDF) - modification to allow for the combustion of RDF.	OAC rule 3745-31-05(A)(3)

	OAC rule 3745-31-05(D)	OAC rule 3745-17-10(B)
		OAC rule 3745-17-10(C)
		OAC rule 3745-18-06(D)
		OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)
		40 CFR Part 60, Subpart Db
	OAC rule 3745-17-07(A)	
		40 CFR 60, Subpart Eb
		40 CFR Part 63 Subpart DDDDD

	Applicable Emissions Limitations/Control Measures	
40 CFR Part 64	The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(D), 3745-21-07(B), 3745-21-08(B), 3745-23-06(B), 40 CFR 60 Subpart Eb, 40 CFR Part 63 subpart DDDDD, and 40 CFR Part 64. When burning natural gas exclusively, particulate emissions (PE) shall not exceed 0.02 pound/million Btu of actual heat input. When burning a combination of the following fuels: natural gas, TDF, RDF and/or wood, PE shall not exceed 0.07 pound/million Btu of actual heat input, and 12.6 pounds per hour of PE; particulate matter with aerodynamic diameter less than 10 microns (PM-10) emissions shall not exceed 0.06 pound/million Btu of actual heat input, and 10.8 pounds per hour; nitrogen oxides (NO_x) emissions shall not exceed 0.3 pound/million Btu of actual heat input, and 54.0 pounds per hour;	sulfur dioxide (SO_2) emissions shall not exceed 0.28 pound/million Btu of actual heat input, and 50.4 pounds per hour; carbon monoxide (CO) emissions shall not exceed 0.15 pound/million Btu of actual heat, and 27.0 pounds per hour; volatile organic compounds (VOC) emissions shall not exceed 0.08 pound/million Btu of actual heat, and 14.4 pounds per hour; sulfuric acid mist (H2SO4) emissions shall not exceed 0.036 pound/million Btu of actual heat input, and 6.52 pounds per hour; dioxins/furans emissions shall not exceed 1.00×10^{-8} pound/million Btu of actual heat input, and 2×10^{-6} pound per hour; hydrogen chloride (HCl) emissions shall not exceed 0.09 pound/million Btu of actual heat input, and 16.2 pounds per hour; hydrogen fluoride (HF) emissions shall not exceed 0.002 pound/million Btu of actual heat input, and 0.36 pound per hour; vinyl chloride (VC) emissions shall not exceed 0.0006 pound/million Btu of actual heat input, and 0.108 pound per hour;

beryllium (Be) emissions shall not exceed 5.50 x 10^{-7} pound/million Btu of actual heat input, and 9.90 x 10^{-5} pound per hour; lead (Pb) emissions shall not exceed 5.00 x 10^{-4} pound/million Btu of actual heat input, and 0.09 pound per hour; mercury (Hg) emissions shall not exceed 9.00 x 10^{-6} pound/million Btu of actual heat input, and 0.0016 pound per hour; cadmium (Cd) emissions shall not exceed 6.00 x 10^{-6} l pound/million Btu of actual heat input, and 0.0011 pound per hour; manganese (Mn) emissions shall not exceed 5.00 x 10^{-4} pound/million Btu of actual heat input, and 0.09 pound per hour. Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity. Part III, section A.I.2.a. The total amount of heat	input in emissions units B003 and B004, combined, shall not exceed 883,008 million Btu per rolling, 12-month period. Combined emissions from B003 and B004 shall not exceed the following per rolling 12-month period: PE - 30.91 tons per year (tpy); PM-10 - 26.49 tpy; NOx - 132.45 tpy; SO2 - 123.6 tpy; CO - 66.23 tpy; VOC - 35.32 tpy; H2SO4 - 16.0 tpy; dioxins/furans - 4.42 x 10^{-6} tpy; HCl - 39.74 tpy; HF - 0.88 tpy; VC - 0.26 tpy; Be - 0.00024 tpy; Pb - 0.22 tpy; Hg - 0.004 tpy; Cd - 0.0026 tpy; and Mn - 0.22 tpy. The visible PE limitation specified in this rule is less stringent than the visible PE limitation established pursuant to OAC rule 3745-31-05(A)(3). When burning natural gas, the PE limitation specified in this rule is equivalent to the PE limitation established pursuant to OAC rule 3745-31-05(A)(3). When burning a combination of natural gas, TDF, RDF, and/or wood, the PE limitation specified in this rule is less stringent than the PE limitations established	pursuant to OAC rule 3745-31-05(A)(3). The emission limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3). See Part III, section A.I.2.c below. Exempt from NOx requirements, natural gas annual capacity factor 10% or less. No limitations exist for SO2 and/or PE. See Part III, section A.II.6, III.6 and 7, and IV.5 and 8 thru 12 below. Exempt, meets the definition of a cofired combustor as defined in 40 CFR 60.51b. See Part III, sections A.II..1 and IV.7 below. Particulate matter (or Total Selected Metals)- 0.07 pound per million Btu of hear input; or (0.001 pound per million Btu of heat input). Hydrogen chloride - 0.09 pound per million Btu of heat input. Mercury - 0.000009 pound per million Btu of heat input. See Part II, sections A.1 - A.31 The compliance date for these requirements is September 13, 2007

See Part III, sections A.III.2, A.III.9, A.IV.1, A.IV.13, and A.IV.14 below.

2. Additional Terms and Conditions

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

2.b Based upon information submitted by the applicant in their permit application, the annual actual baseline emissions for B003 and B004 are as follows:

PE - 25.13 tpy;
PM-10 - 11.81tpy;
NO_x - 108.18 tpy;
SO2 - 86.35 tpy;
VOC - 0.61 tpy;
H2SO4 - 9.61 tpy
CO - 43.73 tpy;
HF - 0.06 tpy;
VC - 0.0011 tpy;
Be - 9.0×10^{-5} tpy;
Pb -2.76×10^{-2} tpy;
Hg - 1.18×10^{-3} tpy;
Cd - 4.86×10^{-3} tpy; and
Mn - 7.11×10^{-1} tpy.

2.c The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

2.d The permittee has satisfied the "best available control techniques and operating practices"
required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best

available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B);
therefore, paragraph (B) is no longer part of the State regulations. However, that rule
revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA
approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best
available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e All particulate matter less than 2.5 microns (PM_{10}) is considered to be PM10 for purposes of avoiding non-attainment review.

II. Operational Restrictions

1. The permittee shall only burn natural gas, TDF, RDF, or wood, or a combination of these fuels in this emissions unit. The permittee shall not burn any oil in this emissions unit. The following maximum weight percent fraction operating scenarios shall be allowed:

Natural Gas	Wood	TDF	RDF
100%	0%	0%	0%
0%	100%	0%	0%
0%	88.7%	11.3%	0%
0%	88%	0%	12%
0%	83%	8%	9%

2. The permittee shall not operate the emissions unit at loads greater than 110 percent of the maximum demonstrated load of the emissions unit (4-hour block average) during the most recent emissions test that demonstrated the emissions unit was in compliance.

3. <u>Emission, Natural Gas, TDF/RDF/Wood Mix, and Wood Burned Restrictions:</u>

   In order to avoid applicability of the federal Non-Attainment New Source Review (NNSR), Prevention of Significant Deterioration and corresponding Ohio Administrative Code (OAC) provisions, Akron Thermal shall restrict their cumulative heat input in emissions units B003 through B004 combined by the following formula#:

$$\left(\frac{\text{V lbs of wood burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{4,500 Btu}}{\text{lbs of wood}}\right)+\left(\frac{\text{X lbs of RDF burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{7,000 Btu}}{\text{lbs of RDF}}\right)+$$
$$\left(\frac{\text{Y lbs of TDF burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{13,000 Btu}}{\text{lbs of TDF}}\right)+$$
$$\left(\frac{\text{Z SCF natural gas burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{1,020 Btu}}{\text{SCF of natural gas}}\right)\leq$$
$$\left(\frac{\text{883,008 MMBtu}}{\text{rolling 12-month period}}\right)$$

Where:
V is the pounds of pure wood burned per rolling 12-month period
X is the pounds of RDF burned per rolling 12-month period
Y is the pounds of TDF burned per rolling 12-month period
Z is the cubic feet of natural gas burned per rolling 12-month period

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.
In addition, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative heat input limitations specified in the following table:

Month	Maximum Allowable Cumulative Heat Input (B003 - B004) (million Btu)
1	147,168
1 - 2	147,168
1 - 3	294,336
1 - 4	294,336
1 - 5	441,504
1 - 6	441,504
1 - 7	558,672
1 - 8	558,672
1 - 9	735,840
1 - 10	735,840
1 - 11	883,008
1 - 12	883,008

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual heat input limitation shall be based upon a rolling, 12-month summation of cumulative heat inputs.

4. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste (for example, railroad ties, telephone poles, pallets).

5. ESP Restrictions:

The permittee shall operate and maintain the microprocessor-based system that modulates the power of each transformer rectifier set in conjunction with the level of operation of each boiler, and shall ensure that all ESP fields are operational in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall operate the ESP during any operation of this emissions unit, except the ESP may not be operated during periods of start-up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.

The operation of the control equipment outside of the restrictions established above may or may not indicate a mass emission violation. If required by the Ohio EPA, compliance with the mass emission limitations shall be determined by performing concurrent mass emission tests and parameter readings, using US EPA-approved methods and procedures. The results of any required emission tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of the restrictions specified above is indicative of a possible violation of the mass emission limitations.

6. Natural Gas Annual Capacity Factor Limitation:

In order to avoid the NOx requirements of 40 CFR Part 60, Subpart Db, the maximum annual natural gas capacity factor for this emissions unit shall not exceed 10 percent, based upon a rolling, 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

The permittee has existing natural gas usage records such that the permittee does not need to be limited on a monthly basis for the first year.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall monitor and record the following information on a daily basis:

   a. the tons of wood that was fed to the boiler that day;
   b. the tons of TDF that was fed to the boiler that day;
   c. the tons of RDF that was fed to the boiler that day;
   d. the calculated ratio of TDF/RDF/wood mixture that was burned that day,
   e. the natural gas consumption for each day (in million cubic feet); and
   f. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_w + DI_t + DI_r$$

DI = Total heat input for each day, million Btu
DI_g = Daily heat input rate from Gas
DI_w = Daily heat input rate from Wood
DI_t = Daily heat input rate from TDF
DI_r = Daily heat input rate from RDF

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:
DI_g = Daily heat input rate from pipeline natural gas, million Btu per day.
Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.
GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.
10^3 = Conversion of thousand Btu to million Btu.

When the unit is combusting wood, use the following equation to calculate heat input rate:

$$DI_w = V_w * GCV_w / 10^6$$

Where:

DIw = Daily heat input rate from wood, million Btu per day.
V_w = Volume rate of wood consumed per day, measured in pounds/day
GCV_w = Gross calorific value of wood, as measured by ASTM D2015 during most recent stack test, Btu/unit mass, in pounds.
10^6 = Conversion of Btu to million Btu.

When the unit is combusting TDF, use the following equation to calculate heat input rate:

$$DI_t = V_t * GCV_t / 10^6$$

Where:
DI_t = Daily heat input rate from TDF, million Btu/day.
V_t = Volume rate of TDF consumed per day, measured in lbs/day
GCV_t = Gross calorific value of TDF, as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.
10^6 = Conversion of Btu to millionBtu.

When the unit is combusting RDF, use the following equation to calculate heat input rate:

$$DI_r = V_r * GCV_r / 10^6$$

Where:
DI_r = Daily heat input rate from RDF, millionBtu/day.
V_r = Volume rate of RDF consumed per day, measured in lbs/day
GCV_r = Gross calorific value of TDF, as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.
10^6 = Conversion of Btu to millionBtu.

2. Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration

checks, and magnitude of manual calibration adjustments.

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

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, 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 that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained 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.

3. <u>ESP Requirements:</u>

The permittee shall monitor and record the following on an hourly basis during any operation of the ESP:

a. the secondary voltage, in kilovolts, and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;

b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and

c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).

The permittee shall record the following information for each day the duration of any downtime for the ESP monitoring equipment for secondary voltage, current. and power specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.

4. The permittee shall operate and maintain a temperature monitor and recorder that

measures and records the temperature of the boiler exhaust gases entering the ESP as follows:

a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and

b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

The temperature monitor and recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the emissions unit exhaust gases in degrees Fahrenheit.

5. Steam Load Monitoring Requirements

The permittee shall install, calibrate, maintain, and operate a steam flowmeter or a feed water flowmeter and continuously measure and record the measurements of steam (or feed water) in pounds per hour (or kilograms per hour) and also calculate your steam (or feed water) flow in 4-hour block averages.

The permittee shall calculate the steam (or feed water) flow rate using the method in "American Society of Mechanical Engineers (ASME PTC 4.1—1964): Test Code for Steam Generating Units, Power Test Code 4.1–1964 (Reaffirmed 1991)," section 4. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

The permittee shall design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters", 6th Edition (1971), chapter 4. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

The permittee shall calibrate all signal conversion elements associated with steam (or feed water) flow measurements according to the manufacturer instructions before each stack test, or at least once a year.

6. The permittee shall maintain monthly records of the following information in emission units B003 - B004:

a. the pounds of only wood burned;

b. the pounds of TDF burned;

c. the pounds of RDF burned;

d. the cubic feet of natural gas burned;

e. the calculations and the results of the determination that the formulas in term A.II.3 was met;

f. the PE/PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn emissions, in pounds or tons;

g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the heat input figures;

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative heat input levels for each calendar month; and

h. the rolling, 12-month emission limitations for PE/PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn.

6. The permittee shall calculate the annual capacity factor as defined in 40 CFR Part 60.41b individually for each fuel burned each calendar quarter pursuant to 40 CFR Part 60.49b.(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

7. The permittee shall monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in section A.IV.10.

8. The permittee shall maintain daily records of the following information for each day that a TDF/RDF/wood mix is burned in the emissions unit:

a. the pounds of TDF burned;

b. the pounds of wood burned;

c. the pounds of RDF burned;

d. the ratio of TDF burned as a mixture with RDF and/or wood, i.e., (a) / [(a) + (b) + (c)], in percentage (average).

e. the ratio of RDF burned as a mixture with TDF and/or wood, i.e., (c) / [(a) + (b) + (c)], in percentage (average).

9. The CAM plan for this emissions unit has been developed for visible particulate and particulate emissions. The CAM performance indicator for visible particulate emissions is the opacity of the visible particulate emissions from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system. The visible particulate emissions indicator range is 3 consecutive minutes with an average opacity value less than 20%. When the average opacity value is outside the indicator range, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP operating parameters) will be required. The CAM performance indicators for particulate emissions are the opacity of the visible particulate emissions from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system and a predictive particulate emissions model based upon the results of site specific particulate emission testing and emissions unit and ESP parametric data collected during the emission testing. The opacity indicator range is an hourly average opacity value less than 20%. When the hourly average opacity value is outside the indicator range, there is no reporting or corrective action requirement relative to the particulate emission limitation, but the operator must enter the current ESP and emissions unit operating parameters into the site specific model to predict the particulate emissions. If the hourly average opacity does not return to a level within the indicated range, the model is run every 3 hours to evaluate emissions. If the results of the predictive model indicate that the particulate emission limitation may have been exceeded, the permittee shall take corrective action to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in section A.IV.13 below. The predictive model shall be run in accordance with the approved CAM Plan or any approved revision of the Plan. Model calibration will be re-verified through periodic emission testing or if the ESP or emissions unit operating conditions change. In addition to periodic monitoring of their ESP operating parameters, the permittee also has an annual
inspection and maintenance program for their ESP. Based on the results of the monitoring and inspection program, repairs to the ESP are made per the manufacturer's recommendation. If the current CAM indicators and/or the ESP maintenance program is considered inadequate, the permittee will develop a Quality Improvement Plan.

10. The permit to install for these emissions units (B003 - B004) was evaluated based on the actual materials (typically coatings and cleanup 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 use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Manganese
TLV (mg/m3): 0.2
Maximum Hourly Emission Rate (pounds per hour): 0.12
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.022
MAGLC (ug/m3): 0.714

Pollutant: Acrolein
TLV (mg/m3): 0.23
Maximum Hourly Emission Rate (pounds per hour): 0.89
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.167
MAGLC (ug/m3): 4.02

Pollutant: Benzene
TLV (mg/m3): 32
Maximum Hourly Emission Rate (pounds per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 37.95

Pollutant: Biphenyl
TLV (mg/m3): 1.3
Maximum Hourly Emission Rate (pounds per hour): 3.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.264
MAGLC (ug/m3): 29.97

Pollutant: 1,3-Butadiene
TLV (mg/m3): 4.4
Maximum Hourly Emission Rate (pounds per hour): 1.40
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.264
MAGLC (ug/m3): 105.13

Pollutant: Ethylbenzene
TLV (mg/m3): 434

Maximum Hourly Emission Rate (pounds per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 10,316.81

Pollutant: Formaldehyde
TLV (mg/m3): 0.27
Maximum Hourly Emission Rate (pounds per hour): 0.97
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.184
MAGLC (ug/m3): 6.45

Pollutant: Naphthalene
TLV (mg/m3): 52
Maximum Hourly Emission Rate (pounds per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 1,245.77

Pollutant: Phenol
TLV (mg/m3): 19
Maximum Hourly Emission Rate (pounds per hour): 0.40
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.075
MAGLC (ug/m3): 457.29

Pollutant: Styrene
TLV (mg/m3): 213
Maximum Hourly Emission Rate (pounds per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 2,024.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (pounds per hour): 0.20
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.038
MAGLC (ug/m3): 4,476.68

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (pounds per hour): 19.11
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.607
MAGLC (ug/m3): 23.81

Pollutant: Arsenic
TLV (mg/m3): 0.01
Maximum Hourly Emission Rate (pounds per hour):1.18×10^{-2}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):3.11×10^{-3}

MAGLC (ug/m3): 0.24

Pollutant: Beryllium
TLV (mg/m3):0.002
Maximum Hourly Emission Rate (pounds per hour):1.21 x 10^{-4}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):3.19 x 10^{-5}
MAGLC (ug/m3):0.047

Pollutant: Chromium
TLV (mg/m3):0.5
Maximum Hourly Emission Rate (pounds per hour):2.78 x 10^{-2}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):7.31 x 10^{-3}
MAGLC (ug/m3):11.9

Pollutant: Lead
TLV (mg/m3):0.05
Maximum Hourly Emission Rate (pounds per hour):0.19
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):4.99 x 10^{-2}
MAGLC (ug/m3): 1.19

Pollutant: Mercury
TLV (mg/m3):0.01
Maximum Hourly Emission Rate (pounds per hour):1.39 x 10^{-3}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):3.65 x 10^{-4}
MAGLC (ug/m3):0.238

Pollutant: Nickel
TLV (mg/m3):0.1
Maximum Hourly Emission Rate (pounds per hour): 2.42 x 10^{-2}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):6.37 x 10^{-3}
MAGLC (ug/m3): 2.38

Pollutant: Selenium
TLV (mg/m3): 0.2
Maximum Hourly Emission Rate (pounds per hour): 9.04 x 10^{-3}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.38 x 10^{-3}
MAGLC (ug/m3): 4.76

Pollutant: Hydrogen Chloride
TLV (mg/m3): 1.34

Maximum Hourly Emission Rate (pounds per hour):12.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.39
MAGLC (ug/m3):31.9

Pollutant: Hydrogen Fluoride
TLV (mg/m3):3.66
Maximum Hourly Emission Rate (pounds per hour):0.118
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.12×10^{-2}
MAGLC (ug/m3):87.14

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 still 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 (typically for coatings or cleanup materials), 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

11. 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.

IV. Reporting Requirements

1. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date,
commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

   The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

2. The permittee shall submit deviation (excursion) reports which identify:

   a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i);

   b. all periods in which the fuel usage operations exceeded any of the allowable scenarios listed in section A.II.3;

   c. all periods in which the steam load exceeded 110 percent of the maximum demonstrated load of the emissions unit (4-hour block average) during the most recent emissions test that demonstrated the emissions unit was in compliance; and

   d. all exceedances of rolling, 12-month emission limitations for PE/PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn for emissions units B003 and B004, combined.

3. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.

4. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative heat input and any records showing any exceedance of the formula in term A.II.2.

5. The permittee shall submit deviation (excursion) reports that identify all exceedances of the natural gas annual capacity factor limitation and, for the first 12 calendar months of operation following the issuance of the permit, all exceedances of the monthly allowable natural gas capacity factor.

6. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.

7. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calender quarter.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

8. The permittee shall submit an initial notification of startup. This notification shall include:

   a. the date of initial startup;

   b. the design heat input capacity of the facility and an identification of the fuels to be combusted in the affected facility; and

   c. the annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.

9. The permittee shall submit for approval within 360 days of startup a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxide emission limitations. The plan shall:

   a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxide emission rates (i.e., ng/J or pounds/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

   b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and

   c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.

10. The permittee shall submit excess emission reports for any calculated exceedance of the nitrogen oxide emission limitation. All reports shall be submitted by the 30th day following the end of the 6 month reporting period.

11. Pursuant to the NSPS, section 60.7, the source owner/operator is hereby advised of the requirement to submit a written report to the administrator (not more than 60 days

or as soon as practicable before the change is commenced) the following:

a. information describing the precise nature of the change;

b. present and proposed emissions control systems;

c. productive capacity of the facility before and after the change; and

d. expected completion date of the change.

The administrator may request additional relevant information subsequent to this notice.

12. Report required in term A.IV.11 is to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron Air Pollution Control
146 South High Street
Room 904
Akron, Ohio 44308

13. If the results of the predictive model indicate that the particulate emission limitation may have been exceeded, the permittee shall submit the results of the predictive modeling and document any corrective action taken to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with General Term and Conditions of this permit.

14. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, 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 that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained 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.

V. Testing Requirements

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

   a. The emission testing shall be conducted within 3 months after start-up

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PE, PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn.

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

for PE, Methods 1-5 of 40 CFR Part 60, Appendix A;
for PM-10, Method 201 of 40 CFR Part 51, Appendix M;
for NO_x, Methods 1-4 and 7E of 40 CFR Part 60, Appendix A;
for SO_2, Methods 1-4 and 6C of 40 CFR Part 60, Appendix A;
for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
for VOC, Methods 1-4 and 25 or 25A of 40 CFR Part 60, Appendix A;
for dioxins/furans, Methods 1-4 and 23 of 40 CFR Part 60, Appendix A;
for HCl, Methods 1-4 and 26 of 40 CFR Part 60, Appendix A;
for H_2SO_4 mist, Methods 1-4 and 8 of 40 CFR Part 60, Appendix A;
for HF Methods 1-4 and 26 of 40 CFR Part 60, Appendix A;
for VC Methods 1-4 and 107 of 40 CFR Part 60, Appendix A;
for Be Methods 1-4 and 29 of 40 CFR Part 60, Appendix A;
for Pb Methods 1-4 and 12 of 40 CFR Part 60, Appendix A;
for Hg Methods 1-4 and 29 of 40 CFR Part 60, Appendix A;
for Cd Methods 1-4 and 29 of 40 CFR Part 60, Appendix A;
for Mn Methods 1-4 and 29 of 40 CFR Part 60, Appendix A.

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

This initial performance tests shall be conducted both while firing a mixture of 12% RDF with wood, and also while firing a mixture of 9%RDF & 8% TDF with wood.

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

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to

submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

4. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

5. The permittee shall demonstrate the maximum heat input capacity of the steam generating unit by operating it as maximum capacity for 24 hours. The permittee shall determine the maximum heat input capacity using the heat loss method described in section 5 and 7.3 of the ASME Power Test Codes 4.1. This demonstration of maximum heat input capacity shall be made during the initial performance test. It shall be made within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the emissions unit is less than that stated by the manufacturer of the emissions unit, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the emissions unit. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

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

   a. Emission Limitation:

      0.02 pound of PE/million Btu of actual heat input, when combusting only natural gas

      Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 pounds of particulate per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 pound of particulate per million Btu.

b. Emission Limitation:

0.07 pound of PE/million Btu of actual heat input
12.6 pounds per hour of PE

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 5, 40 CFR Part 60, Appendix A.

c. Emission Limitation:

0.06 pound of PM-10/million Btu of actual heat input
10.8 pounds per hour of PM-10

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 201, 40 CFR Part 51, Appendix M.

d. Emission Limitation:

0.3 pound of NO_x/million Btu of actual heat input
50.4 pounds per hour of NO_x

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 7E, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

0.28 pound of SO_2 /million Btu of actual heat input
50.4 pounds per hour of SO_2

Applicable Compliance Method:
Compliance shall be determined by emission testing in accordance with Methods 1-4 and 6C, 40 CFR Part 60, Appendix A.

e. Emission Limitation:

0.15 pound of CO /million Btu of actual heat input
27.0 pounds per hour of CO

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 10, 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.08 pound of VOC /million Btu of actual heat input
14.4 pounds per hour of VOC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 25, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

0.09 pound of HCl /million Btu of actual heat input
16.2 pounds per hour of HCl

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

h. Emission Limitation:

0.036 pound of sulfuric acid mist/million Btu
6.52 pounds per hour of sulfuric acid mist

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 8, 40 CFR Part 60, Appendix A.

i Emission Limitation:

1.00×10^{-8} pound of dioxins/furans/million Btu of actual heat input
2×10^{-6} pound per hour of dioxins/furans

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 23, 40 CFR Part 60, Appendix A.

j. Emission Limitation:

0.002 pound of HF/million Btu of actual heat input
0.36 pound per hour of HF

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

k. Emission Limitation:

0.0006 pound of VC /million Btu of actual heat input
0.108 pound per hour of VC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 107, 40 CFR Part 60, Appendix A.

l. Emission Limitation:

5.50×10^{-7} pound of Be /million Btu of actual heat input
9.90×10^{-5} pound per hour of Be

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

m. Emission Limitation:

5.00×10^{-4} pound of Pb /million Btu of actual heat input
0.09 pound per hour of Pb

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 12, 40 CFR Part 60, Appendix A.

n. Emission Limitation:

9.00×10^{-6} pound of Hg /million Btu of actual heat input
0.0016 pound per hour of Hg

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

o. Emission Limitation:

6.00×10^{-6} pound of Cd /million Btu of actual heat input
0.0011 pound per hour of Cd

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

p. Emission Limitation:

5.00 x 10^{-4} pound of Mn /million Btu of actual heat input
0.09 pound per hour of Mn

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

q. Emission Limitation:

20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity)

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

r. Emission Limitation:

Combined emissions from B003 and B004 shall not exceed the following per rolling 12-month period:

PE - 30.91 tpy;
PM-10 - 26.49 tpy;
NOx - 132.45 tpy;
SO2 - 123.6 tpy;
CO - 66.23 tpy;
VOC - 35.32 tpy;
H2SO4 - 16.0 tpy;
dioxins/furans - 4.42 x 10^{-6} tpy;
HCl - 39.74 tpy;
HF - 0.88 tpy;
VC - 0.26 tpy;
Be - 0.00024 tpy;
Pb - 0.22 tpy;
Hg - 0.004 tpy;

Cd - 0.0026 tpy; and
Mn - 0.22 tpy.

Applicable Compliance Method:

Multiply the result of most recent stack test, in pounds/MillionBtu, by the rolling 12-month allowable heat input of 883,008 MillionBtu and divide by 2000 to convert the result to tons.

s. Emission Limitation:

annual capacity factor for natural gas shall be limited to 10 percent (0.10)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section III.6 of these T&Cs.

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements for this emissions unit contained in permit to install 16-02294 as issued final on December 16, 2003.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B003 - Unit #1, Babcock and Wilcox 180 million Btu per hour waste-to-energy boiler for steam generation, controlled with an electrostatic precipitator (ESP), combusting wood, natural gas, tire derived fuel (TDF), and refuse derived fuel (RDF) - modification to combust a mixture of wood, TDF, and RDF and avoid PSD and nonattainment NSR.	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements
B004 - Unit #2, Babcock and Wilcox 180 million Btu per hour waste-to-energy boiler for steam generation, controlled with an electrostatic precipitator (ESP), combusting wood, natural gas, tire derived fuel (TDF), and refuse derived fuel (RDF) - modification to allow for the combustion of RDF.	OAC rule 3745-31-05(A)(3)

	OAC rule 3745-31-05(D)	
		OAC rule 3745-17-10(C)
		OAC rule 3745-18-06(D)
		OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)
	OAC rule 3745-17-07(A)	
		40 CFR Part 60, Subpart Db
	OAC rule 3745-17-10(B)	
		40 CFR 60, Subpart Eb
		40 CFR Part 63 Subpart DDDDD

	Applicable Emissions Limitations/Control Measures	
40 CFR Part 64	The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(D), 3745-21-07(B), 3745-21-08(B), 3745-23-06(B), 40 CFR 60 Subpart Eb, 40 CFR Part 63 subpart DDDDD, and 40 CFR Part 64. When burning natural gas exclusively, particulate emissions (PE) shall not exceed 0.02 pound/million Btu of actual heat input. When burning a combination of the following fuels: natural gas, TDF, RDF and/or wood, PE shall not exceed 0.07 pound/million Btu of actual heat input, and 12.6 pounds per hour of PE; particulate matter with aerodynamic diameter less than 10 microns (PM-10) emissions shall not exceed 0.06 pound/million Btu of actual heat input, and 10.8 pounds per hour; nitrogen oxides (NO_x) emissions shall not exceed 0.3 pound/million Btu of actual heat input, and 54.0 pounds per hour;	sulfur dioxide (SO_2) emissions shall not exceed 0.28 pound/million Btu of actual heat input, and 50.4 pounds per hour; carbon monoxide (CO) emissions shall not exceed 0.15 pound/million Btu of actual heat, and 27.0 pounds per hour; volatile organic compounds (VOC) emissions shall not exceed 0.08 pound/million Btu of actual heat, and 14.4 pounds per hour; sulfuric acid mist (H2SO4) emissions shall not exceed 0.036 pound/million Btu of actual heat input, and 6.52 pounds per hour; dioxins/furans emissions shall not exceed 1.00×10^{-8} pound/million Btu of actual heat input, and 2×10^{-6} pound per hour; hydrogen chloride (HCl) emissions shall not exceed 0.09 pound/million Btu of actual heat input, and 16.2 pounds per hour; hydrogen fluoride (HF) emissions shall not exceed 0.002 pound/million Btu of actual heat input, and 0.36 pound per hour; vinyl chloride (VC) emissions shall not exceed 0.0006 pound/million Btu of actual heat input, and 0.108 pound per hour;

beryllium (Be) emissions shall not exceed 5.50 x 10^{-7} pound/million Btu of actual heat input, and 9.90 x 10^{-5} pound per hour; lead (Pb) emissions shall not exceed 5.00 x 10^{-4} pound/million Btu of actual heat input, and 0.09 pound per hour; mercury (Hg) emissions shall not exceed 9.00 x 10^{-6} pound/million Btu of actual heat input, and 0.0016 pound per hour; cadmium (Cd) emissions shall not exceed 6.00 x 10^{-6} l pound/million Btu of actual heat input, and 0.0011 pound per hour; manganese (Mn) emissions shall not exceed 5.00 x 10^{-4} pound/million Btu of actual heat input, and 0.09 pound per hour. Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity. Part III, section A.I.2.a. The total amount of heat	input in emissions units B003 and B004, combined, shall not exceed 883,008 million Btu per rolling, 12-month period. Combined emissions from B003 and B004 shall not exceed the following per rolling 12-month period: PE - 30.91 tons per year (tpy); PM-10 - 26.49 tpy; NOx - 132.45 tpy; SO2 - 123.6 tpy; CO - 66.23 tpy; VOC - 35.32 tpy; H2SO4 - 16.0 tpy; dioxins/furans - 4.42 x 10^{-6} tpy; HCl - 39.74 tpy; HF - 0.88 tpy; VC - 0.26 tpy; Be - 0.00024 tpy; Pb - 0.22 tpy; Hg - 0.004 tpy; Cd - 0.0026 tpy; and Mn - 0.22 tpy. The visible PE limitation specified in this rule is less stringent than the visible PE limitation established pursuant to OAC rule 3745-31-05(A)(3). When burning natural gas, the PE limitation specified in this rule is equivalent to the PE limitation established pursuant to OAC rule 3745-31-05(A)(3). When burning a combination of natural gas, TDF, RDF, and/or wood, the PE limitation specified in this rule is less stringent than the PE limitations established	pursuant to OAC rule 3745-31-05(A)(3). The emission limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3). See Part III, section A.I.2.c below. Exempt from NOx requirements, natural gas annual capacity factor 10% or less. No limitations exist for SO2 and/or PE. See Part III, section A.II.6, III.6 and 7, and IV.5 and 8 thru 12 below. Exempt, meets the definition of a cofired combustor as defined in 40 CFR 60.51b. See Part III, sections A.II..1 and IV.7 below. Particulate matter (or Total Selected Metals)- 0.07 pound per million Btu of hear input; or (0.001 pound per million Btu of heat input). Hydrogen chloride - 0.09 pound per million Btu of heat input. Mercury - 0.000009 pound per million Btu of heat input. See Part II, sections A.1 - A.31 The compliance date for these requirements is September 13, 2007

See Part III, sections A.III.2, A.III.9, A.IV.1, A.IV.13, and A.IV.14 below.

2. Additional Terms and Conditions

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

2.b Based upon information submitted by the applicant in their permit application, the annual actual baseline emissions for B003 and B004 are as follows:

PE - 25.13 tpy;
PM-10 - 11.81tpy;
NO_x - 108.18 tpy;
SO2 - 86.35 tpy;
VOC - 0.61 tpy;
H2SO4 - 9.61 tpy
CO - 43.73 tpy;
HF - 0.06 tpy;
VC - 0.0011 tpy;
Be - 9.0×10^{-5} tpy;
Pb -2.76×10^{-2} tpy;
Hg - 1.18×10^{-3} tpy;
Cd - 4.86×10^{-3} tpy; and
Mn - 7.11×10^{-1} tpy.

2.c The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

2.d The permittee has satisfied the "best available control techniques and operating practices"
required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best

available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B);
therefore, paragraph (B) is no longer part of the State regulations. However, that rule
revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA
approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best
available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e All particulate matter less than 2.5 microns (PM_{10}) is considered to be PM10 for purposes of avoiding non-attainment review.

II. Operational Restrictions

1. The permittee shall only burn natural gas, TDF, RDF, or wood, or a combination of these fuels in this emissions unit. The permittee shall not burn any oil in this emissions unit. The following maximum weight percent fraction operating scenarios shall be allowed:

Natural Gas	Wood	TDF	RDF
100%	0%	0%	0%
0%	100%	0%	0%
0%	88.7%	11.3%	0%
0%	88%	0%	12%
0%	83%	8%	9%

2. The permittee shall not operate the emissions unit at loads greater than 110 percent of the maximum demonstrated load of the emissions unit (4-hour block average) during the most recent emissions test that demonstrated the emissions unit was in compliance.

3. <u>Emission, Natural Gas, TDF/RDF/Wood Mix, and Wood Burned Restrictions:</u>

   In order to avoid applicability of the federal Non-Attainment New Source Review (NNSR), Prevention of Significant Deterioration and corresponding Ohio Administrative Code (OAC) provisions, Akron Thermal shall restrict their cumulative heat input in emissions units B003 through B004 combined by the following formula#:

$$\left(\frac{\text{V lbs of wood burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{4,500 Btu}}{\text{lbs of wood}}\right)+\left(\frac{\text{X lbs of RDF burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{7,000 Btu}}{\text{lbs of RDF}}\right)+$$
$$\left(\frac{\text{Y lbs of TDF burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{13,000 Btu}}{\text{lbs of TDF}}\right)+$$
$$\left(\frac{\text{Z SCF natural gas burned}}{\text{rolling 12-month period}}\right)\left(\frac{\text{1,020 Btu}}{\text{SCF of natural gas}}\right)\leq$$
$$\left(\frac{\text{883,008 MMBtu}}{\text{rolling 12-month period}}\right)$$

Where:
V is the pounds of pure wood burned per rolling 12-month period
X is the pounds of RDF burned per rolling 12-month period
Y is the pounds of TDF burned per rolling 12-month period
Z is the cubic feet of natural gas burned per rolling 12-month period

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.
In addition, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative heat input limitations specified in the following table:

Month	Maximum Allowable Cumulative Heat Input (B003 - B004) (million Btu)
1	147,168
1 - 2	147,168
1 - 3	294,336
1 - 4	294,336
1 - 5	441,504
1 - 6	441,504
1 - 7	558,672
1 - 8	558,672
1 - 9	735,840
1 - 10	735,840
1 - 11	883,008
1 - 12	883,008

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual heat input limitation shall be based upon a rolling, 12-month summation of cumulative heat inputs.

4. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste (for example, railroad ties, telephone poles, pallets).

5. ESP Restrictions:

The permittee shall operate and maintain the microprocessor-based system that modulates the power of each transformer rectifier set in conjunction with the level of operation of each boiler, and shall ensure that all ESP fields are operational in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall operate the ESP during any operation of this emissions unit, except the ESP may not be operated during periods of start-up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.

The operation of the control equipment outside of the restrictions established above may or may not indicate a mass emission violation. If required by the Ohio EPA, compliance with the mass emission limitations shall be determined by performing concurrent mass emission tests and parameter readings, using US EPA-approved methods and procedures. The results of any required emission tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of the restrictions specified above is indicative of a possible violation of the mass emission limitations.

6. Natural Gas Annual Capacity Factor Limitation:

In order to avoid the NOx requirements of 40 CFR Part 60, Subpart Db, the maximum annual natural gas capacity factor for this emissions unit shall not exceed 10 percent, based upon a rolling, 12-month rolling average basis with a new annual capacity factor

calculated at the end of each calendar month.

The permittee has existing natural gas usage records such that the permittee does not need to be limited on a monthly basis for the first year.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall monitor and record the following information on a daily basis:

   a. the tons of wood that was fed to the boiler that day;
   b. the tons of TDF that was fed to the boiler that day;
   c. the tons of RDF that was fed to the boiler that day;
   d. the calculated ratio of TDF/RDF/wood mixture that was burned that day,
   e. the natural gas consumption for each day (in million cubic feet); and
   f. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_w + DI_t + DI_r$$

DI = Total heat input for each day, million Btu
DI_g = Daily heat input rate from Gas
DI_w = Daily heat input rate from Wood
DI_t = Daily heat input rate from TDF
DI_r = Daily heat input rate from RDF

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:
DI_g = Daily heat input rate from pipeline natural gas, million Btu per day.
Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.
GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.
10^3 = Conversion of thousand Btu to million Btu.

When the unit is combusting wood, use the following equation to calculate heat input rate:

$$DI_w = V_w * GCV_w / 10^6$$

Where:

DIw = Daily heat input rate from wood, million Btu per day.
V_w = Volume rate of wood consumed per day, measured in pounds/day
GCV_w = Gross calorific value of wood, as measured by ASTM D2015 during most recent stack test, Btu/unit mass, in pounds.
10^6 = Conversion of Btu to million Btu.

When the unit is combusting TDF, use the following equation to calculate heat input rate:

$$DI_t = V_t * GCV_t / 10^6$$

Where:
DI_t = Daily heat input rate from TDF, million Btu/day.
V_t = Volume rate of TDF consumed per day, measured in lbs/day
GCV_t = Gross calorific value of TDF, as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.
10^6 = Conversion of Btu to millionBtu.

When the unit is combusting RDF, use the following equation to calculate heat input rate:

$$DI_r = V_r * GCV_r / 10^6$$

Where:
DI_r = Daily heat input rate from RDF, millionBtu/day.
V_r = Volume rate of RDF consumed per day, measured in lbs/day
GCV_r = Gross calorific value of TDF, as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.
10^6 = Conversion of Btu to millionBtu.

2. <u>Continuous Opacity Monitoring Requirements:</u>

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

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

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, 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 that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained 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.

3. <u>ESP Requirements:</u>

The permittee shall monitor and record the following on an hourly basis during any operation of the ESP:

a. the secondary voltage, in kilovolts, and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;

b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and

c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).

The permittee shall record the following information for each day the duration of any downtime for the ESP monitoring equipment for secondary voltage, current. and power specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.

4. The permittee shall operate and maintain a temperature monitor and recorder that

measures and records the temperature of the boiler exhaust gases entering the ESP as follows:

a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and

b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

The temperature monitor and recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the emissions unit exhaust gases in degrees Fahrenheit.

5. Steam Load Monitoring Requirements

The permittee shall install, calibrate, maintain, and operate a steam flowmeter or a feed water flowmeter and continuously measure and record the measurements of steam (or feed water) in pounds per hour (or kilograms per hour) and also calculate your steam (or feed water) flow in 4-hour block averages.

The permittee shall calculate the steam (or feed water) flow rate using the method in "American Society of Mechanical Engineers (ASME PTC 4.1—1964): Test Code for Steam Generating Units, Power Test Code 4.1–1964 (Reaffirmed 1991)," section 4. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

The permittee shall design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters", 6th Edition (1971), chapter 4. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

The permittee shall calibrate all signal conversion elements associated with steam (or feed water) flow measurements according to the manufacturer instructions before each stack test, or at least once a year.

6. The permittee shall maintain monthly records of the following information in emission

units B003 - B004:

a. the pounds of only wood burned;

b. the pounds of TDF burned;

c. the pounds of RDF burned;

d. the cubic feet of natural gas burned;

e. the calculations and the results of the determination that the formulas in term A.II.3 was met;

f. the PE/PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn emissions, in pounds or tons; and

g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the heat input figures;

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative heat input levels for each calendar month; and

h. the rolling, 12-month emission limitations for PE/PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn.

6. The permittee shall calculate the annual capacity factor as defined in 40 CFR Part 60.41b individually for each fuel burned each calendar quarter pursuant to 40 CFR Part 60.49b.(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

7. The permittee shall monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in section A.IV.10.

8. The permittee shall maintain daily records of the following information for each day that a TDF/RDF/wood mix is burned in the emissions unit:

a. the pounds of TDF burned;

b. the pounds of wood burned;

c. the pounds of RDF burned;

d. the ratio of TDF burned as a mixture with RDF and/or wood, i.e., (a) / [(a) + (b) + (c)], in percentage (average).

e. the ratio of RDF burned as a mixture with TDF and/or wood, i.e., (c) / [(a) + (b) + (c)], in percentage (average).

9. The CAM plan for this emissions unit has been developed for visible particulate and particulate emissions. The CAM performance indicator for visible particulate emissions is the opacity of the visible particulate emissions from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system. The visible particulate emissions indicator range is 3 consecutive minutes with an average opacity value less than 20%. When the average opacity value is outside the indicator range, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP operating parameters) will be required. The CAM performance indicators for particulate emissions are the opacity of the visible particulate emissions from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system and a predictive particulate emissions model based upon the results of site specific particulate emission testing and emissions unit and ESP parametric data collected during the emission testing. The opacity indicator range is an hourly average opacity value less than 20%.
When the hourly average opacity value is outside the indicator range, there is no reporting or corrective action requirement relative to the particulate emission limitation, but the operator must enter the current ESP and emissions unit operating parameters into the site specific model to predict the particulate emissions. If the hourly average opacity does not return to a level within the indicated range, the model is run every 3 hours to evaluate emissions. If the results of the predictive model indicate that the particulate emission limitation may have been exceeded, the permittee shall take corrective action to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in section A.IV.13 below. The predictive model shall be run in accordance with the approved CAM Plan or any approved revision of the Plan. Model calibration will be re-verified through periodic emission testing or if the ESP or emissions unit operating conditions change. In addition to periodic monitoring of their ESP operating parameters, the permittee also has an annual
inspection and maintenance program for their ESP. Based on the results of the monitoring and inspection program, repairs to the ESP are made per the manufacturer's recommendation. If the current CAM indicators and/or the ESP maintenance program is considered inadequate, the permittee will develop a Quality Improvement Plan.

10. The permit to install for these emissions units (B003 - B004) was evaluated based on the actual materials (typically coatings and cleanup 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 use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Manganese
TLV (mg/m3): 0.2
Maximum Hourly Emission Rate (pound per hour): 0.12
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.022
MAGLC (ug/m3): 0.714

Pollutant: Acrolein
TLV (mg/m3): 0.23
Maximum Hourly Emission Rate (pound per hour): 0.89
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.167
MAGLC (ug/m3): 4.02

Pollutant: Benzene
TLV (mg/m3): 32
Maximum Hourly Emission Rate (pound per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 37.95

Pollutant: Biphenyl
TLV (mg/m3): 1.3
Maximum Hourly Emission Rate (pounds per hour): 3.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.264
MAGLC (ug/m3): 29.97

Pollutant: 1,3-Butadiene
TLV (mg/m3): 4.4
Maximum Hourly Emission Rate (pounds per hour): 1.40
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.264
MAGLC (ug/m3): 105.13

Pollutant: Ethylbenzene
TLV (mg/m3): 434

Maximum Hourly Emission Rate (pound per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 10,316.81

Pollutant: Formaldehyde
TLV (mg/m3): 0.27
Maximum Hourly Emission Rate (pound per hour): 0.97
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.184
MAGLC (ug/m3): 6.45

Pollutant: Naphthalene
TLV (mg/m3): 52
Maximum Hourly Emission Rate (pound per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 1,245.77

Pollutant: Phenol
TLV (mg/m3): 19
Maximum Hourly Emission Rate (pound per hour): 0.40
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.075
MAGLC (ug/m3): 457.29

Pollutant: Styrene
TLV (mg/m3): 213
Maximum Hourly Emission Rate (pound per hour): 0.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070
MAGLC (ug/m3): 2,024.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (pound per hour): 0.20
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.038
MAGLC (ug/m3): 4,476.68

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (pounds per hour): 19.11
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.607
MAGLC (ug/m3): 23.81

Pollutant: Arsenic
TLV (mg/m3): 0.01
Maximum Hourly Emission Rate (pound per hour):1.18×10^{-2}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):3.11×10^{-3}
MAGLC (ug/m3): 0.24

Pollutant: Beryllium
TLV (mg/m3):0.002
Maximum Hourly Emission Rate (pound per hour):1.21×10^{-4}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):3.19×10^{-5}
MAGLC (ug/m3):0.047

Pollutant: Chromium
TLV (mg/m3):0.5
Maximum Hourly Emission Rate (pound per hour):2.78×10^{-2}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):7.31×10^{-3}
MAGLC (ug/m3):11.9

Pollutant: Lead
TLV (mg/m3):0.05
Maximum Hourly Emission Rate (pound per hour):0.19
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):4.99×10^{-2}
MAGLC (ug/m3): 1.19

Pollutant: Mercury
TLV (mg/m3):0.01
Maximum Hourly Emission Rate (pound per hour):1.39×10^{-3}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):3.65×10^{-4}
MAGLC (ug/m3):0.238

Pollutant: Nickel
TLV (mg/m3):0.1
Maximum Hourly Emission Rate (pound per hour): 2.42×10^{-2}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):6.37×10^{-3}
MAGLC (ug/m3): 2.38

Pollutant: Selenium
TLV (mg/m3): 0.2
Maximum Hourly Emission Rate (pound per hour): 9.04×10^{-3}
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.38×10^{-3}
MAGLC (ug/m3): 4.76

Pollutant: Hydrogen Chloride
TLV (mg/m3): 1.34

Maximum Hourly Emission Rate (pounds per hour):12.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.39
MAGLC (ug/m3):31.9

Pollutant: Hydrogen Fluoride
TLV (mg/m3):3.66
Maximum Hourly Emission Rate (pound per hour):0.118
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.12×10^{-2}
MAGLC (ug/m3):87.14

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 still 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 (typically for coatings or cleanup materials), 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

11. 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.

IV. Reporting Requirements

1. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date,
commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

   The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

2. The permittee shall submit deviation (excursion) reports which identify:

   a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i);

   b. all periods in which the fuel usage operations exceeded any of the allowable scenarios listed in section A.II.3;

   c. all periods in which the steam load exceeded 110 percent of the maximum demonstrated load of the emissions unit (4-hour block average) during the most recent emissions test that demonstrated the emissions unit was in compliance; and

   d. all exceedances of rolling, 12-month emission limitations for PE/PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn for emissions units B003 and B004, combined.

3. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.

4. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative heat input and any records showing any exceedance of the formula in term A.II.2.

5. The permittee shall submit deviation (excursion) reports that identify all exceedances of the natural gas annual capacity factor limitation and, for the first 12 calendar months of operation following the issuance of the permit, all exceedances of the monthly allowable natural gas capacity factor.

6. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.

7. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calender quarter.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

8. The permittee shall submit an initial notification of startup. This notification shall include:

   a. the date of initial startup;

   b. the design heat input capacity of the facility and an identification of the fuels to be combusted in the affected facility; and

   c. the annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.

9. The permittee shall submit for approval within 360 days of startup a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxide emission limitations. The plan shall:

   a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxide emission rates (i.e., ng/J or pounds/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

   b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and

   c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.

10. The permittee shall submit excess emission reports for any calculated exceedance of the nitrogen oxide emission limitation. All reports shall be submitted by the 30th day following the end of the 6 month reporting period.

11. Pursuant to the NSPS, section 60.7, the source owner/operator is hereby advised of the requirement to submit a written report to the administrator (not more than 60 days

or as soon as practicable before the change is commenced) the following:

a. information describing the precise nature of the change;

b. present and proposed emissions control systems;

c. productive capacity of the facility before and after the change; and

d. expected completion date of the change.

The administrator may request additional relevant information subsequent to this notice.

12. Report required in term A.IV.11 is to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron Air Pollution Control
146 South High Street
Room 904
Akron, Ohio 44308

13. If the results of the predictive model indicate that the particulate emission limitation may have
been exceeded, the permittee shall submit the results of the predictive modeling and document
any corrective action taken to restore operation of the emissions unit to its normal or usual
manner of operation as expeditiously as practicable in accordance with good air pollution control
practices for minimizing emissions. The reports shall be submitted in accordance with General
Term and Conditions of this permit.

14. Within 180 days of the effective date of this permit, the permittee shall develop a written quality

assurance/quality control plan for the continuous opacity monitoring system designed to ensure
continuous valid and representative readings of opacity. The plan shall include, as a minimum,
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 that sections 7.1.4, 7.4.1,
7.4.2, and Table 1-1 of Performance Specification 1 are maintained 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.

V. Testing Requirements

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

   a. The emission testing shall be conducted within 3 months after start-up

   b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PE, PM-10, NOx, SO2, CO, VOC, H2SO4, dioxins/furans, HCl, HF, VC, Be, Pb, Hg, Cd, and Mn.

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

      for PE, Methods 1-5 of 40 CFR Part 60, Appendix A;
      for PM-10, Method 201 of 40 CFR Part 51, Appendix M;
      for NO_x, Methods 1-4 and 7E of 40 CFR Part 60, Appendix A;
      for SO_2, Methods 1-4 and 6C of 40 CFR Part 60, Appendix A;
      for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
      for VOC, Methods 1-4 and 25 or 25A of 40 CFR Part 60, Appendix A;
      for dioxins/furans, Methods 1-4 and 23 of 40 CFR Part 60, Appendix A;
      for HCl, Methods 1-4 and 26 of 40 CFR Part 60, Appendix A;
      for H_2SO_4 mist, Methods 1-4 and 8 of 40 CFR Part 60, Appendix A;

for HF Methods 1-4 and 26 of 40 CFR Part 60, Appendix A;
for VC Methods 1-4 and 107 of 40 CFR Part 60, Appendix A;
for Be Methods 1-4 and 29 of 40 CFR Part 60, Appendix A;
for Pb Methods 1-4 and 12 of 40 CFR Part 60, Appendix A;
for Hg Methods 1-4 and 29 of 40 CFR Part 60, Appendix A;
for Cd Methods 1-4 and 29 of 40 CFR Part 60, Appendix A;
for Mn Methods 1-4 and 29 of 40 CFR Part 60, Appendix A.

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

This initial performance tests shall be conducted both while firing a mixture of 12% RDF with wood, and also while firing a mixture of 9%RDF & 8% TDF with wood.

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

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

4. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

5. The permittee shall demonstrate the maximum heat input capacity of the steam generating unit by operating it as maximum capacity for 24 hours. The permittee shall determine the maximum heat input capacity using the heat loss method described in

section 5 and 7.3 of the ASME Power Test Codes 4.1. This demonstration of maximum heat input capacity shall be made during the initial performance test. It shall be made within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the emissions unit is less than that stated by the manufacturer of the emissions unit, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the emissions unit. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

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

a. Emission Limitation:

0.02 pound of PE/MillionBtu of actual heat input, when combusting only natural gas

Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 pounds of particulate per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 pound of particulate per millionBtu.

b. Emission Limitation:

0.07 pound of PE/million Btu of actual heat input
12.6 pounds per hour of PE

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 5, 40 CFR Part 60, Appendix A.

c. Emission Limitation:

0.06 pound of PM-10/million Btu of actual heat input
10.8 pounds per hour of PM-10

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 201, 40 CFR Part 51, Appendix M.

d. Emission Limitation:

0.3 pound of NO_x/million Btu of actual heat input
50.4 pounds per hour of NO_x

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 7E, 40 CFR Part 60, Appendix A.

e. Emission Limitation:

0.28 pound of SO_2 /million Btu of actual heat input
50.4 pounds per hour of SO_2

Applicable Compliance Method:
Compliance shall be determined by emission testing in accordance with Methods 1-4 and 6C, 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.15 pound of CO /million Btu of actual heat input
27.0 pounds per hour of CO

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 10, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

0.08 pound of VOC /million Btu of actual heat input
14.4 pounds per hour of VOC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 25, 40 CFR Part 60, Appendix A.

h. Emission Limitation:

0.09 pound of HCl /million Btu of actual heat input
16.2 pounds per hour of HCl

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

i. Emission Limitation:

0.036 pound of sulfuric acid mist/million Btu
6.52 pounds per hour of sulfuric acid mist

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 8, 40 CFR Part 60, Appendix A.

j. Emission Limitation:

1.00×10^{-8} pound of dioxins/furans/million Btu of actual heat input
2×10^{-6} pound per hour of dioxins/furans

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 23, 40 CFR Part 60, Appendix A.

k. Emission Limitation:

0.002 pound of HF/million Btu of actual heat input
0.36 pound per hour of HF

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

I. Emission Limitation:

0.0006 pound of VC /million Btu of actual heat input
0.108 pound per hour of VC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 107, 40 CFR Part 60, Appendix A.

m. Emission Limitation:

5.50×10^{-7} pound of Be /million Btu of actual heat input
9.90×10^{-5} pound per hour of Be

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

n. Emission Limitation:

5.00×10^{-4} pound of Pb /million Btu of actual heat input
0.09 pound per hour of Pb

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 12, 40 CFR Part 60, Appendix A.

o. Emission Limitation:

9.00×10^{-6} pound of Hg /million Btu of actual heat input
0.0016 pound per hour of Hg

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

p. Emission Limitation:

6.00×10^{-6} pound of Cd /million Btu of actual heat input
0.0011 pound per hour of Cd

Emissions Unit ID: B004

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

q. Emission Limitation:

5.00 x 10^{-4} pound of Mn /million Btu of actual heat input
0.09 pound per hour of Mn.

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Methods 1-4 and 29, 40 CFR Part 60, Appendix A.

r. Emission Limitation:

20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity)

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

s. Emission Limitation:

Combined emissions from B003 and B004 shall not exceed the following per rolling 12-month period:

PE - 30.91 tpy;
PM-10 - 26.49 tpy;
NOx - 132.45 tpy;
SO2 - 123.6 tpy;
CO - 66.23 tpy;
VOC - 35.32 tpy;
H2SO4 - 16.0 tpy;
dioxins/furans - 4.42 x 10^{-6} tpy;
HCl - 39.74 tpy;
HF - 0.88 tpy;
VC - 0.26 tpy;
Be - 0.00024 tpy;
Pb - 0.22 tpy;

Hg - 0.004 tpy;
Cd - 0.0026 tpy; and
Mn - 0.22 tpy.

Applicable Compliance Method:

Multiply the result of most recent stack test, in pounds/MillionBtu, by the rolling 12-month allowable heat input of 883,008 MillionBtu and divide by 2000 to convert the result to tons.

t. Emission Limitation:

annual capacity factor for natural gas shall be limited to 10 percent (0.10)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section III.6 of these T&Cs.

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements for this emissions unit contained in permit to install 16-02294 as issued final on December 16, 2003.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B004 - Unit #2, Babcock and Wilcox 180 million Btu per hour waste-to-energy boiler for steam generation, controlled with an electrostatic precipitator (ESP), combusting wood, natural gas, tire derived fuel (TDF), and refuse derived fuel (RDF) - modification to combust a mixture of wood, TDF, and RDF and avoid PSD and nonattainment NSR.	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Akron Thermal Energy Corp **Facility ID: 1677010757**
PTI Application: 16-02418
Issued: 10/25/2005

Attachment 1

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n} (Er \times Hm) \div \sum_{i=1}^{n} Hm \qquad \text{(Eq 1)}$$

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n} (Er \times Sm \times Cf) \div \sum_{i=1}^{n} Sm \times Cf \qquad \text{(Eq 2)}$$

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb \qquad \text{(Eq 3)}$$

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n} (Er \times Sa \times Cf) \div \sum_{i=1}^{n} Sa \times Cf \qquad \text{(Eq 4)}$$

$$Cl_{input} = \sum_{i=1}^{n} [(C_i)(Q_i)] \qquad \text{(Eq 5)}$$

$$TSM_{input} = \sum_{i=1}^{n} [(M_i)(Q_i)] \qquad \text{(Eq 6)}$$

$$Mercury_{input} = \sum_{i=1}^{n} [(HG_i)(Q_i)] \qquad \text{(Eq 7)}$$

$$P_{90} = \text{mean} + (SD \times t) \qquad \text{(Eq 8)}$$

$$HCl = \sum_{i=1}^{n}[(C_{i90})(Q_i)(1.028)] \quad \text{(Eq 9)}$$

$$TSM = \sum_{i=1}^{n}[(M_{i90})(Q_i)] \quad \text{(Eq 10)}$$

$$Mercury = \sum_{i=1}^{n}[(HG_{i90})(Q_i)] \quad \text{(Eq 11)}$$