John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

10/22/2014

Certified Mail

Mr. Harry Wyatt
Ohio University Lausche Heating Plant
49 Factory Street
Athens, OH 45701

Facility ID: 0605010016
Permit Number: P0106682
County: Athens

RE: DRAFT AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

A draft of the OAC Chapter 3745-77 Title V permit for the referenced facility has been issued. The purpose of this draft is to solicit public comments. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Athens Messenger. A copy of the public notice, the Statement of Basis, and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

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

and

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on processing the Title V permit will be made after consideration of comments received and oral testimony if a public hearing is conducted. You will then be provided with a Preliminary Proposed Title V permit and another opportunity to comment prior to the 45-day Proposed Title V permit submittal to U.S. EPA Region 5. The permit will be issued final after U.S. EPA review is completed and no objections to the final issuance have been received. If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501.

Sincerely,

Erica R. Engel-Ishida, Interim Manager
Permit Issuance and Data Management Section, DAPC

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

PUBLIC NOTICE
10/22/2014 Issuance of Draft Air Pollution Title V Permit

Ohio University Lausche Heating Plant
Factory Street,
Athens, OH 45701
Athens County
FACILITY DESC.: Colleges, Universities, and Professional Schools
PERMIT #: P0106682
PERMIT TYPE: Renewal
PERMIT DESC: Title V Renewal Permit consisting of four significant emissions units: two 96.25 MMBtu/hr coal-only units; one 96.25 MMBtu/hr coal or natural gas unit; and one 155 MMBtu/hr natural gas unit.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the permit # or: Christina Wieg, Ohio EPA DAPC, Southeast District Office, 2195 Front Street, Logan, OH 43138. Ph: (740)385-8501

Statement of Basis For Air Pollution Title V Permit

Facility ID:	0605010016
Facility Name:	Ohio University Lausche Heating Plant
Facility Description:	University Steam Generating Plant
Facility Address:	Factory Street, Athens, OH 45701
Permit #:	P0106682, Renewal

This facility is subject to Title V because it is major for:
☐ Lead ☒ Sulfur Dioxide ☐ Carbon Monoxide ☐ Volatile Organic Compounds ☒ Nitrogen Oxides
☒ Particulate Matter ≤ 10 microns X Single Hazardous Air Pollutant ☐ Combined Hazardous Air Pollutants
X Maximum Available Control Technology Standard(s) DDDDD ☐ GHG ☐ Title IV

A. Standard Terms and Conditions

Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01(U)?	Yes
Were there any "common control" issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	N/A

Please identify the affected unit(s)and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)	N/A
Please identify the affected unit(s) and pollutant(s) for which a Compliance Assurance Monitoring (CAM) Plan is required per 40 CFR 64. Provide more emissions unit specific detail in Section C.	CAM is applicable to emission units B041, B042, and B043 for particulate matter.

B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
B.2.		40 CFR Part 60, Subpart Db	Emissions unit B058 is subject to this subpart
B.3. and B.4.		40 CFR part 63, Subpart DDDDD	Emissions units B041, B042, and B043 are subject to this subpart Emissions units B058, B036, and B037 are subject to the tune up requirements of this subpart.
B.5		40 CFR part 63, Subpart DDDDD	Emissions unit B058 is subject to the tune up requirements of this subpart.
B.6.		40 CFR part 63, Subpart	Emissions units B036 and B037 have been designated as limited-use boilers are subject to 5-year tune-up requirements of this subpart

		DDDDD	
B.7.	17-07(A) and 17-10		B036 and B037 are subject to opacity and particulate limits
B.7.	31-03		P001, P002, P003 are subject Permit by Rule requirements

C. Emissions Unit Terms and Conditions

Key:
EU = emissions unit ID
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)
OR = operational restriction
M = monitoring requirements
ENF = did noncompliance issues drive the monitoring requirements?
R = record keeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement
Misc = miscellaneous requirements

EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
B041, B042, B043, B058	20% Opacity as a 6-minute average	17-07(A)		N	Y	Y	N	N	Y	N	N	N	
B042	NOx emissions shall not exceed 0.10 lb/MMBtu	31-05(A)(3)		N	Y	Y	N	N	Y	N	N	N	
B041, B042, B043	PE shall not exceed 0.15 lb/MMBtu	17-10(C)(1)		Y	Y	Y	N	Y	N	Y	N	N	
B041, B042, B043	SOx shall not exceed 4.7	18-11(C)		Y	Y	Y	N	Y	N	Y	N	N	

	lbs/MMBtu												
B058	PE shall not exceed 0.020 lb/MMBtu	31-05(A)(3)		Y	Y	Y	N	Y	N	Y	N	N	
B058	CO shall not exceed 0.083 lb/MMBtu		ORC 3704.03(T)	Y	Y	Y	N	Y	N	Y	N	N	
B058	SOx shall not exceed 0.08 lb/hr	31-05(A)(3)		Y	Y	Y	N	Y	N	Y	N	N	
B058	NOx shall not exceed 0.10 LB/MMBtu		40 CFR Part 60, Subpart Db and ORC 3704.03(T)	Y	Y	Y	N	Y	N	Y	N	N	
B041, B042, B043, B058	Table 2 for existing units		40 CFR, Part 63, Subpart DDDDD (Major Source Boiler MACT)		Y	Y	N	Y	Y	Y	N	N	Compliance date of January 31, 2016. Compliance date may be extended up to one year upon written approval by US EPA.
B041, B042, B043	NA		40 CFR Part 64 (Compliance Assurance Monitoring (CAM))		N	Y	N	Y	Y	Y	N	N	M – Stack opacity is measured and recorded by the certified continuous opacity monitoring (COM) system. The visible particulate emissions indicator range is each six-minute block average with an opacity action level value greater than 10%. When the opacity value is greater than 10%, corrective action (including, but not limited to, an evaluation of the emissions unit the COM system and the baghouse) will be required. The ranges for normal operation are: <u>Parameter</u> <u>Indicator Range</u>

													Opacity ≤10% Flue gas temperature prior to the baghouse ≥ 250 °F Baghouse Pressure Drop ≥ 5.8” R – The facility keeps opacity/COM data on site. Rp – The facility is required to submit quarterly deviation reports ET – The facility is required to conduct annual testing for PM as specified in 40 CFR Part 63, Subpart DDDDD, Table 2.

DRAFT

Division of Air Pollution Control
Title V Permit
for
Ohio University Lausche Heating Plant

Facility ID:	0605010016
Permit Number:	P0106682
Permit Type:	Renewal
Issued:	10/22/2014
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Division of Air Pollution Control
Title V Permit
for
Ohio University Lausche Heating Plant

Table of Contents

Authorization 1
A. Standard Terms and Conditions 2
1. Federally Enforceable Standard Terms and Conditions 3
2. Monitoring and Related Record Keeping and Reporting Requirements 3
3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance 6
4. Risk Management Plans 7
5. Title IV Provisions 7
6. Severability Clause 7
7. General Requirements 7
8. Fees 8
9. Marketable Permit Programs 8
10. Reasonably Anticipated Operating Scenarios 9
11. Reopening for Cause 9
12. Federal and State Enforceability 9
13. Compliance Requirements 9
14. Permit Shield 11
15. Operational Flexibility 11
16. Emergencies 11
17. Off-Permit Changes 12
18. Compliance Method Requirements 12
19. Insignificant Activities or Emissions Levels 13
20. Permit to Install Requirement 13
21. Air Pollution Nuisance 13
22. Permanent Shutdown of an Emissions Unit 13
23. Title VI Provisions 13
24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only 14
25. Records Retention Requirements Under State Law Only 14
26. Inspections and Information Requests 14
27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements 15
28. Permit Transfers 15

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

30. Submitting Documents Required by this Permit 16

B. Facility-Wide Terms and Conditions..... 17

C. Emissions Unit Terms and Conditions 20

1. B042, Boiler #1 Keeler 96.25 million Btu/hr coal and/or natural gas 21

2. B058, Boiler #4 – Nebraska Boiler Co., Model # N2S-7-108, 155 million Btu/hr, Natural Gas-Fired Boiler equipped with Low-NO_x Burners and Flue-gas Recirculation 88

3. Emissions Unit Group - Coal-fired Only Units: B041, B043 95

Authorization

Facility ID:	0605010016
Facility Description:	University Steam Generating Plant
Application Number(s):	A0039789, A0042462
Permit Number:	P0106682
Permit Description:	Title V Renewal Permit consisting of four significant emissions units: two 96.25 MMBtu/hr coal-only units; one 96.25 MMBtu/hr coal or natural gas unit; and one 155 MMBtu/hr natural gas unit.
Permit Type:	Renewal
Issue Date:	10/22/2014
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance

Superseded Permit Number: P0088937

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Ohio University Lausche Heating Plant
Factory Street
Athens, OH 45701

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Southeast District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

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

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 all calibration and maintenance records and all original strip-chart recordingsfor continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submittedscheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Southeast District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Southeast District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from

federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Southeast District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. 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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

a) 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 reissuance, or modification, or for denial of a permit renewal application.

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 permitexcept as provided pursuant to A.16 below.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. 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, reopening 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.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible

Officialthat, 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:

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

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

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

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

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

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

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

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Southeast District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittentconsistent with A.13.d.2.a above.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Southeast District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Southeast District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met.

This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible Official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, noemissions unit identified in this permit that has beencertified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11)))

24. Reporting Requirements Related to Monitoring and Record Keeping RequirementsUnder State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to theOhio EPA DAPC, Southeast District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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, 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.)

25. Records Retention RequirementsUnder State Law Only

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.

26. Inspections and Information Requests

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

whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Southeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Southeast District Office must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or

c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.

30. Submitting Documents Required by this Permit

All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event ofan alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Ohio EPA DAPC, Southeast District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart Db: B058. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District Office or local air agency.

3. The permittee shall comply with the applicable provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63, Subpart DDDDD. The final rules found in 40 CFR Part 63, Subpart DDDDD establish national emission standards for hazardous air pollutants (NESHAP), operational limits, work practice standards, and compliance requirements for industrial, commercial, and institutional boilers located at a major source of hazardous air pollutants (HAP). The permittee shall comply with the requirements and limits of this NESHAP for the facility's new (commenced construction after 6/4/10) boilers by January 31, 2013, or upon startup, whichever is later; and the facility's existing boilers shall be in compliance with 40 CFR Part 63, Subpart DDDDD no later than January 31, 2016.

   [40 CFR 63.6(b)(2)], [40 CFR 63.7485], [40 CFR 63.7490], and [40 CFR 63.7495]

4. The terms in this permit identify the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) contained in 40 CFR Part 63, Subpart DDDDD and are meant to help the permittee maintain compliance with this NESHAP. The requirements of this Subpart apply to the facility boilers according to their applicable subcategory, as identified in 40 CFR 63.7499 and as defined in 40 CFR 63.7575.

   [40 CFR Part 63, Subpart DDDDD]

5. The following boiler is designed to only burn gas 1 fuels (subcategory) and therefore is/are not subject to the emission limits in Tables 1 and 2, or 11 through 13 of the subpart or the operating limits in Table 4 to the subpart. However, the boiler is subject to tune-up requirements, conducted in accordance with 40 CFR 63.7540(a)(10)(i) through (vi) and Table 3 to the subpart; and the existing boilers must be included in the one-time energy assessment, performed in accordance with Table 3 #4 of the subpart:

   B058

   [40 CFR 63.7500(e)] and [40 CFR 63.7540(a)(10) through (13)]

6. The following boilers are identified as limited-use boilers and are not subject to the emission limits in Tables 1 and 2, or 11 through 13 of the subpart, the operating limits in Table 4 of the subpart, or the energy assessment requirements in Table 3 of the subpart. However, the limited-use boilers are subject to 5-year tune-up requirements, conducted in accordance with 40 CFR 63.7540(a)(10)(i) through (vi) and Table 3 to the subpart:

   B036, B037

Each limited-use boiler identified above shall have a federally enforceable average annual capacity factor of no more than 10%.

[40 CFR 63.7500(c)] and [40 CFR 63.7540(a)(10) (12), and (13)]

7. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a permit-to-install for that emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-by-rule, permit-to-install or in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

EU ID	Operations, Property and/or Equipment Description
B036	Clippinger #2 10.46 MMBtu/hr, natural gas, steam heat boiler. OAC 3745-17-07(A); 3745-17-10; 40 CFR Part 63, Subpart DDDDD
B037	Clippinger #1 10.46 MMBtu/hr, natural gas, steam heat boiler. OAC 3745-17-07(A); 3745-17-10; 40 CFR Part 63, Subpart DDDDD
P001	Caterpillar Model 3512C Emergency Diesel Generator (PBR07552)
P002	Kohler Model 1500R Portable Emergency Diesel Generator (PBR10569)
P003	Kohler Model 800RE Portable Emergency Diesel Generator (PBR10569)

C. Emissions Unit Terms and Conditions

1. B042, Boiler #1 Keeler 96.25 million Btu/hr coal and/or natural gas

Operations, Property and/or Equipment Description:

Boiler #1. Keeler 96.25 million Btu/hr coal or natural gas-fired boiler with low-NOx burners and controlled by a fabric filter baghouse. This emissions unit has been modified to burn either coal or natural gas but cannot burn both fuels simultaneously.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 06-3015 Issued Final on 10/02/1991)	Nitrogen oxide (NOx) emissions shall not exceed 0.10 lb per MMBtu of actual heat input while burning natural gas.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule. The visible PE limitation required by this applicable rule is less stringent than the visible PE limitation established pursuant to 40 CFR Part 63, Subpart DDDDD.
c.	OAC rule 3745-17-10(C)(1)	PE shall not exceed 0.15 lb per million Btu of actual heat input. The PE limitation required by this applicable rule is less stringent than the PE limitation established pursuant to 40 CFR Part 63, Subpart DDDDD.
d.	OAC rule 3745-18-11(C)	Sulfur dioxide (SO_2) emissions shall not exceed 4.7 lbs per MMBtu of actual heat input.
e.	OAC rule 3745-110-03(B)	NO_x emissions shall not exceed 0.30 lb per MMBtu of actual heat input while burning coal. The NO_x emission limitation established for burning natural gas in this emissions

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		unit is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
f.	40 CFR Part 63 Subpart DDDDD, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters. (applicability 40 CFR 63.7485; affected source, 40 CFR 63.7490)	The emissions from the boilershall not exceed the following emission limitations,as identified in the most recent amendment to 40 CFR Part 63, Subpart DDDDD, and as identified in: Table 2 for existing units: 4.0E-02 lb of filterable particulate matter (PM)/MMBtu of heat input; or 5.3E-05 lb of Total Selected Metals (TSM)/MMBtu of heat input; and 2.2E-02 lb of hydrogen chloride (HCl)/MMBtu of heat input; and 5.7E-06 lb of mercury (Hg)/MMBtu of heat input; and 160 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, 3-run average; or, if using CEMS: 340 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, as a 30-day rolling average. **ORoutput limits (option)** 4.2E-02 lb of PM/MMBtu of steam output; or 5.6E-05 lb of TSM/ MMBtu of steam output; and 2.5E-02 lb of hydrogen chloride (HCl)/MMBtu of steam output; and 6.4E-06 lb of mercury (Hg)/MMBtu of steam output; and 0.14 lb CO/MMBtu of steam output, 3-run average. Boilers subject to emission standards in Tables 1, 2, 11, 12 and/or 13 shall also meet the work practice standards identified in Table 3 during startup and

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		shutdown of the unit and the tune-up requirements, as applicable, in Table 3. Boilers not subject to emission standards shall meet the tune-up requirements identified in Table 3 as applicable to the unit. The permittee shall demonstrate compliance with the limits published in the final amendments to Subpart DDDDD, as required by the subpart.
g.	40 CFR 63.7525(c); and 40 CFR Part 63, Subpart DDDDD; Table 4 #3 and #6; and Table 8 #1	Where not required to install PM CPMS, PM CEMS*, or where not using a bag leak detection system, COMS* must be used to demonstrate compliance with the opacity standard and visible emissions shall not exceed 10% opacity as a daily block average.
h.	40 CFR Part 64 Compliance Assurance Monitoring	See b)(2)o, d)(1), d)(38) and e)(1).

* continuous monitoring system (CMS), continuous emissions monitoring system (CEMS), continuous opacity monitoring system (COMS), and continuous parameter monitoring system (CPMS).

(2) Additional Terms and Conditions

a. The quality of the coal burned in this emissions unit shall meet the following specifications on an as received wet basis:

i. a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 4.7 pounds sulfur dioxide/MMBtu actual heat input.

Compliance with the above-mentioned specification shall be determined by use of the coal quality, sampling, and analysis records.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. The permittee shall develop a site-specific continuous monitoring system (CMS) performance evaluation test plan and shall, upon request, submit a copy to the appropriate District Office or local air agency of the Ohio EPA Division of Air Pollution Control (DAPC) for evaluation and/or approval. A performance evaluation of each CMS shall be conducted in accordance with the site-specific performance evaluation test plan. The continuous monitoring system (CMS)

shall be operated and certified in accordance with the appropriate performance specification under Appendix B to Part 60 and shall meet the requirements of 40 CFR 63.7525. The test evaluation of the CMS(s) shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The site-specific performance evaluation test plan shall require all CMS (systems required by rule) be maintained in continuous operation during process operations. The site-specific monitoring plan shall address the following requirements:

i. the design, data collection, quality assurance, and quality control elements outlined in 40 CFR 63.8(d);

ii. installation of the CEMS sampling probe at a location that is representative of the exhaust emissions (*e.g.*, on or downstream of the last control device);

iii. performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;

iv. performance evaluation procedures and acceptance criteria (*e.g.,* calibrations, accuracy audits, analytical drift);

v. ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c);

vi. ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d); and

vii. ongoing recordkeeping and reporting procedures in accordance with the requirements of 40 CFR 63.10(c) and (e).

The performance evaluation test plan shall also include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance (QA) program.

viii. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance.

ix. The external QA program shall include, at a minimum, provisions for systems audits and validation of instrument calibrations, data collection, sample logging, and documentation of quality control data and field maintenance activities and must also address the following requirements:

(a) each CMS (parameter monitor or sampling probe) shall be installed at a location that accurately measures the exhaust emissions representative of the emissions unit (e.g., on or

downstream of the last control device) and accurately measures the process and/or the control device parameters;

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

(c) performance evaluation procedures and acceptance criteria, including calibration frequency, results, and records.

The permittee shall notify both the Central Office and the appropriate District or local office of the Ohio EPA DAPC at least 60 days before the performance evaluation is scheduled for a CEMS or COMS, or by a mutually agreed upon (by DAPC Central Office) date. The permittee shall notify the appropriate District or local office of the Ohio EPA DAPC at least 60 days before the performance evaluation is scheduled for a CPMS. The DAPC may request a copy of the site-specific performance evaluation test plan and additional relevant information following the review of a site-specific performance evaluation test plan. All CMS shall be installed, operational, and the data verified, as specified in 40 CFR 63.7505(d), either prior to or in conjunction with conducting performance tests required under 40 CFR 63.7.

[40 CFR 63.7505(d)] and [40 CFR 63.8(d) and (e)]

c. The permittee shall develop and, if requested, submit a site-specific test plan to the Director (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) for evaluation and approval, at least 60 calendar days before the performance test is scheduled to take place and simultaneously with the notification of intention to conduct a performance test, unless the Director agrees upon a different date. The site-specific test plan shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The test plan shall include, at a minimum, the following elements: a test program summary; the test schedule; data quality objectives; and both an internal and external quality assurance (QA) program.

The internal quality assurance (QA) program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision (e.g.: sampling and analysis of replicate samples). The external QA program shall include, at a minimum, the following elements:

i. provisions for a test method performance audit during the performance test, in order to provide a measure of test data bias;

ii. provisions for systems audits, instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities; and

iii. provisions to provide appropriate notice (60 days), to the Director, of the performance test, performance audit, and systems audit, allowing the

regulating agency the opportunity to arrange for their own on-site evaluation.

The performance audits shall consist of blind audit samples, provided by an accredited audit sample provider, which shall be taken and analyzed during each performance test. The Director may request additional relevant information following the receipt and review of the site-specific test plan.

[40 CFR 63.7(c)]

d. If not required to install CPMS (or CEMS) for PM in accordance with 40 CFR 63.7505(d)and choosing to use a bag leak detections system to demonstrate compliance, the permittee shall develop (and submit upon request) a site-specific monitoring plan for the bag leak detection system. The site-specific monitoring plan shall address the following requirements:

i. the location(s) where the bag leak detection sensor(s) are to be installed, i.e., in a position(s) that is representative of the relative or absolute PM loadings from each exhaust stack, roof vent, or compartment of the fabric filter;

ii. provisions for performance evaluations of the bag leak detection system, to be conducted in accordance with the site-specific monitoring plan and the guidance provided in U.S. EPA's document number "EPA-454/R-98-015";

iii. provisions requiring the bag leak detection system to be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less;

iv. provisions requiring the bag leak detection system to be equipped with a device to continuously record the output signal from the sensor;

v. provisions requiring the bag leak detection system to be equipped with a system that will alert plant operating personnel when an increase in relative PM emissions are detected over a preset level (alert set point);

vi. provisions requiring the system alert to be placed in a location where it can be easily heard or seen by plant operating personnel and it may be shared among detectors;

vii. identification of the corrective action(s) to be initiated within 1 hour of a system alert and provisions requiring repairs, replacements, and/or adjustments to be completed as soon as practical; and

viii. provisions requiring the fabric filter system to be operated and maintained so that the periods that would cause an alert are no more than 5% of the operating time during any 6-month period.

[40 CFR 63.7525(j)], [40 CFR 63.7530(b)(4)], [40 CFR 63.7540(a)(7)], and [Subpart DDDDD Tables 4 #3b and 8 #3]

e. The permittee shall develop a site-specific fuel monitoring plan for each fuel burned in boilers that burn more than a single type of fuel; or for each fuel that the facility chooses to demonstrate compliance through fuel analyses. A fuel analyses is not require for fuels used only for startup and shutdown or for transient flame stability, natural gas, refinery gas, or fuels exempted in 40 CFR 63.7510(a)(2)(i) or (ii) or 40 CFR 63.7521(f)(1) through (4). For solid and liquid fuels, fuel analyses must be conducted for Cl and Hg, and TSM if opting to comply with the TSM alternative standard; and for gaseous fuels, other than natural gas, refinery gas, or exempted fuels, a fuel analysis must be conducted for Hg. Fuel analyses shall be conducted in accordance with the procedures identified in 40 CFR 63.7521 and Table 6 to Subpart DDDDD. A fuel gas system that consists of multiple gaseous fuels collected and mixed is considered a single fuel type; and sampling and analysis is only required for the gas mix that will feed the boiler. The site-specific fuel analysis plan shall include the following information:

i. the identification of all fuel types anticipated to be burned in each boiler;

ii. for each anticipated fuel type, a statement as to whether the fuel analyses will be conducted by the permittee or by the fuel supplier;

iii. for each anticipated fuel type, the specific procedures to be used for collecting and preparing the composite samples if the procedures are different from those described in 40 CFR 63.7521(c) and (d) and/or Table 6 to the subpart;

iv. for each anticipated fuel type, the analytical methods from Table 6 to the subpart that will be used for the measurement of chlorine (Cl), mercury (Hg), and/or total selected metals (TSM) and the minimum expected detection levels;

v. if requesting the use of an alternative analytical method other than those required by Table 6 from Subpart DDDDD to Part 63, a detailed description of the methods and procedures that are proposed to be used, along with the written approval of the Administrator (U.S. EPA Region V) and a copy of the site-specific monitoring plan that was approved; and

vi. for each anticipated fuel type, identification of the location where fuel samples will be collected, that most accurately represents the fuel type and prior to mixing with other dissimilar fuel types.

If 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 of the Subpart.

[40 CFR 63.7521(a), (b), and (g)] and [40 CFR 63.7510(a)(2) and (b)]

f. Any reference to the “Director” in this permit shall take the meaning of the applicable District Office or local air agency of the Division of Air Pollution Control (DAPC), unless otherwise specified in the terms. Unless other arrangements

have been approved by the Director, notification of the initial certification and performance evaluations of a continuous monitoring system (CMS), scheduled performance testing, and all required reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

g. Except for existing units demonstrating compliance through emissions averaging (40 CFR 63.7522), each existing boiler subject to Part 63 Subpart DDDDD shall meet each applicable emission limit in Table 2; and all existing boilers shall meet the work practice standards identified in Table 3 and each applicable operating limit for the control device(s) identified in Table 4, by the compliance date of 1/31/16.

[40 CFR 63.7500(a)(1) and (2)] and [40 CFR 63.7495]

h. An existing boiler located at a major source of HAP shall demonstrate initial compliance with the emission limits in Table 2 of Part 63 Subpart DDDDD no later than 7/29/16 or no later than 180 days after re-start of a boiler that was not operated following the compliance date (1/31/16) or that has not operated for over a year following the last compliance demonstration.

[40 CFR 63.7510(e) and (j)], [40 CFR 63.7515(g)], [40 CFR 63.7495(b)], and [40 CFR 63.7(a)(2)]

i. For each existing boiler a one-time energy assessment must be performed by a qualified energy assessor no later than 1/31/16. The one-time energy assessment for existing units must include the following:

i. a visual inspection of the boiler system;

ii. an evaluation of operating characteristics of the boiler systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;

iii. an inventory of major energy use systems consuming energy from affected boilers, which are under the control of the boiler operator;

iv. a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;

v. a review of the facility's energy management practices and recommendations for improvements consistent with the definition of energy management practices, if identified;

vi. a list of cost-effective energy conservation measures that are within the permittee’s control;

vii. a list of the energy savings potential of the energy conservation measures identified; and

viii. a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping these investments.

[40 CFR 63.7510(e) and (j)] and [Part 63, Subpart DDDDD, Table 3 #4]

j. Following the initial compliance date, tune-ups must be conducted for each boiler within the applicable annual, biennial, or 5-year schedule as specified in 40 CFR 63.7500(c), (d), and (e), 40 CFR 63.7540(a)(10) through (13), and Table 3 to the subpart. An initial tune-up must be completed for an existing boiler no later than 1/31/16; unless the boiler in not in operation at this time, where a tune-up must be completed within 30 days after the re-start of the boiler.

[40 CFR 63.7500(c), (d), and (e)], [40 CFR 63.7510(e), (g) and (j)], [40 CFR 63.7515(d) and (g)], [40 CFR 63.7540(a)(10) through (13)], and [40 CFR Part 63, Subpart DDDDD, Table 3]

k. The emissions limits, work practice standards, and operating limits of the NESHAP apply at all times of boiler operation, except during periods of startup and shutdown during which the requirements of Table 3 #5 (startup) and #6 (shutdown) of Part 63, Subpart DDDDD apply. Compliance with the emissions limits is demonstrated through: performance stack testing; fuel analyses; and/or continuous monitoring using continuous monitoring systems (CMS), including continuous emission monitoring systems (CEMS), continuous opacity monitoring systems (COMS), continuous parameter monitoring systems (CPMS), and PM continuous parameter monitoring systems (PM CPMS).

[40 CFR 63.7505(a) and (c)], [40 CFR 63.7500(f)], and [40 CFR 63.7540(d)]

l. Following the initial compliance demonstration, compliance with the emission standards for HCl and Hg, or TSM where opting to comply with the standard for TSM instead of PM, may be demonstrated using fuel analysis (instead of a performance test) if the emission rate, calculated in accordance with 40 CFR 63.7530(c), is less than the applicable limit identified in Table 2. Fuel analyses shall be conducted in accordance with 40 CFR 63.7521 and Table 6 to Subpart DDDDD of Part 63. For gaseous fuels, fuel analysis cannot be used for compliance with the HCl or TSM standards.

[40 CFR 63.7505(c)] and [40 CFR Part 63, Subpart DDDDD Table 6]

m. Continuous compliance with each emission limits in Table 2, work practice standards in Table 3, and operating limits in Table 4 of the subpart shall be demonstrated in accordance with the methods specified in 40 CFR 63.7540(a) and Table 8 to Subpart DDDDD of Part 63. Operating above the established maximum or below the established minimum operating limit(s) shall constitute a deviation of the operating limits identified in Table 4 of the subpart.

[40 CFR 63.7540(a)(1)] and [40 CFR Part 63, Subpart DDDDD Tables 4 and 8]

n. The permittee shall meet the applicable requirements of the General Provision in Part 63 Subpart A as identified in Table 10 to the subpart.

[40 CFR Part 63, Subpart DDDDD Table 10]

o. This emissions unit is a pollutant specific emissions unit for PM according to 40 CFR Part 64 and has developed a CAM plan.

Pursuant to 40 CFR Part 64, the permittee has submitted and the Ohio EPA has approved a CAM plan for emissions unit B042. The permittee shall comply with the provisions of the CAM plan during any operation of the aforementioned emissions unit.

[40 CFR Part 64]

c) Operational Restrictions

(1) The coal burned in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of SO_2 per million Btu of heat content, complies with the allowable SO_2 emission limitation contained in this permit.

[Authority for term: OAC rule 3745-18-04(D) and 3745-77-07(C)(1)]

(2) For each boiler controlled by a baghouse equipped with a bag leak detection system, the bag leak detections system shall be installed, operated, and maintained in accordance with 40 CFR 63.7525(j); and the fabric filter system shall be operated and maintained so that the periods that would cause an alert are no more than 5% of the operating time during any 6-month period. Corrective action(s) must be initiated within 1 hour of a system alert and repairs, replacements, and/or adjustments must be completed as soon as practical.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(j)], [40 CFR 63.7540(a)(7)], and [Subpart DDDDD Tables 4 #3b and 8 #3]

(3) For each boiler controlled by a particulate wet scrubber, the permittee shall maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one hour average pressure drop and liquid flow rate measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance with the PM emission limitation and in accordance with 40 CFR 63.7530(b)(4).The monitoring systems shall meet the requirements of 40 CFR 63.7525(d), (e), and (f).

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d), (e), and (f)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #1, 7 #1a, and 8 #4]

(4) For each boiler controlled by a wet acid gas (HCl) scrubber, the permittee shall maintain the 30-day rolling average effluent pH, the 30-day rolling average liquid flow rate, and the 30-day rolling average pressure drop at or above the lowest one hour average pH, liquid flow rate, and pressure drop measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance with the HCl emission limitation and in accordance with 40 CFR 63.7530(b)(4)(i). The monitoring systems shall meet the requirements of 40 CFR 63.7525(d), (e), (f), and (g).

[40 CFR 63.7530(b)(4)(i)], [40 CFR 63.7525(d), (e), (f), and (g)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #2, 7 #2a, and 8 #4 & #5]

(5) For each boiler controlled by an electrostatic precipitator (ESP) and wet scrubber (and not required to install/operate PM CPMS or COMS), the permittee shall maintain the 30-day rolling average total secondary electric power input (secondary voltage and secondary amperage) of the ESP at or above the lowest hourly average total secondary electric power measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7530(b)(4). The monitoring systems shall meet the requirements of 40 CFR 63.7525(d) and (h).

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (h)], [40 CFR Part 63, Subpart DDDDD Tables 4 #4b 7 #1b, and 8 #7]

(6) Each boiler equipped with a dry control system and not required or electing to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, shall be installed with a COMS. COMS data must be reduced in accordance with 40 CFR 63.8(g)(2) and the stack opacity must be maintained at less than or equal to 10% as a daily block average. Each COMS shall be installed, certified, operated, and maintained in accordance with Performance Specification 1, in Part 60 Appendix B, 40 CFR 63.8, 40 CFR 63.7525(c), and the site-specific monitoring plan.

[40 CFR 63.7525(c)], [40 CFR 63.8], [40 CFR Part 63, Subpart DDDDD Tables 4 #4a or #6 and 8 #1]

(7) For each boiler controlled by a dry scrubber, the permittee shall maintain the 30-day rolling average sorbent injection rate at or above the sorbent injection rate at the load fraction multiplied by the lowest hourly average injection rate measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7530(b)(4).The monitoring systems shall meet the requirements of 40 CFR 63.7525(d) and (i).

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (i)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #5, 7 #2b, and 8 #6]

(8) For each boiler controlled by a dry scrubber, the permittee shall maintain the 30-day rolling average activated carbon injection rate at or above the load fraction multiplied by the lowest hourly average injection rate measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7530(b)(4).The monitoring systems shall meet the requirements of 40 CFR 63.7525(d) and (i).

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (i)-sorbent], and [40 CFR Part 63, Subpart DDDDD Tables 4 #5, 7 #2b and 8 #6]

(9) For each boiler controlled by either a wet scrubber or dry sorbent injection system, subject to an HCl emission limit, and electing to establish an operating limit based on using SO_2 CEMS, the permittee shall maintain the 30-day rolling average SO_2 emission rate at or below the highest hourly average SO_2 concentration measured during the most recent performance test demonstrating compliance with the HCl standard.

[40 CFR 63.7525(m)], [40 CFR 63.7530(b)(4) and (i)] and [40 CFR Part 63, Subpart DDDDD Tables 4 #10 and 8 #11]

(10) For boilers subject to a CO emission limit and the permittee is using the option to install an oxygen analyzer, the system shall be installed, calibrated, and maintained in accordance with the manufacturer's recommendations. The permittee shall maintain the 30-day rolling average oxygen concentration of the stack gas at or above the lowest hourly average O_2 concentration measured during each performance test demonstrating compliance with the CO limit, as specified in Table 8. The minimum O_2 level shall be set no lower than the minimum value established during the three performance tests.

[40 CFR 63.7525(a)], [40 CFR 63.7530(b)(4)], [40 CFR 63.7575], and [40 CFR Part 63, Subpart DDDDD Tables 4 #9, 7#4, and 8 #9]

(11) For boilers subject to a CO emission limit and the permittee is using the option to install an oxygen trim system, the monitoring system shall maintain excess air at the desired level by providing a feedback signal to the combustion air controller. The oxygen concentration of the stack gas must be maintained at or above the lowest hourly average O_2 concentration measured during the most recent performance test demonstrating compliance with the CO limit. The minimum O_2 level shall be set no lower than the minimum value established during the three performance tests.

[40 CFR 63.7525(a)], [40 CFR 63.7530(b)(4)], and [40 CFR 63.7575]

(12) Carbon monoxide CEMS and the O_2 analyzer shall be installed, certified, operated, and maintained in accordance with Performance Specification 4, 4A, or 4B of Part 60 Appendix B, the site-specific monitoring plan, 40 CFR 63.7525(a), and 40 CFR 63.8. The 30-day or 10-day (as applicable) rolling average CO concentration shall be maintained at or below the applicable CO CEMS-based standard identified in 2to Part 63 Subpart DDDDD.

[40 CFR 63.7525(a)]; [40 CFR 7540(a)(8)], [40 CFR 63.7510(c)]; [40 CFR 63.8]; and [40 CFR Part 63, Subpart DDDDD Table 8 #10]

(13) For each boilers where compliance was/is demonstrated through a performance test, the permittee shall maintain the operating load such that is does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test demonstrating compliance.

[40 CFR 63.7520(c)], [40 CFR Part 63, Subpart DDDDD Table 4 #8 and Table 8 #10]

(14) The permittee, demonstrating compliance through fuel analyses for HCl, Hg, or TSM, shall conduct monthly (or quarterly if meeting the requirements of 40 CFR 63.7515(e)) fuel analyses in accordance with 40 CFR 63.7521 and Table 6 to the subpart; and shall maintain the fuel type or fuel mixture such that the applicable emission rate(s), calculated according to 40 CFR 63.7530(c)(1), (2) and/or (3), are no more than or less than the applicable emission limits in Table 2 of the subpart. Following the first 12 months of compliance, the rolling 12-month average emissions of HCl, Hg, and/or TSM shall be maintained at or below the applicable emission limit(s).

[40 CFR 63.7505(c)], [40 CFR 63.7510(b)], [40 CFR 63.7515(e)], [40 CFR 63.7530(c)], [40 CFR 63.7540(a)(2) and (3)], [40 CFR Part 63, Subpart DDDDD Tables 4 #7, Table 6, and 8 #8]

(15) A tune-up and inspection of the limited-use boiler(s) must be completed every 5 years as specified in 40 CFR 63.7540(a)(10) and Table 3 #1 of Subpart DDDDD. Limited-use boilers are not subject to the requirements found in Tables 1 and 2, Tables 11 through 13, the annual tune-up requirement or energy assessment requirements in Table 3, or operating limits in Table 4 to Part 63 Subpart DDDDD. The inspection includes measuring the concentration of CO in the effluent gas stream in ppmv and oxygen in volume percent, at high fire or typical operating load and both before and after the tune-up; and maintaining a record/report of the results of the inspection and the fuel(s) burned in the boiler during the year if capable of burning more than one type of fuel. For an existing boiler, an initial tune-up must be completed no later than 1/31/16.

[40 CFR 63.7500(c)], [40 CFR 63.7540(a)(10),(12), and (13)] [40 CFR 63.7515(d)], [40 CFR 63.7510(e)-existing and (g)-new], and [40 CFR Part 63, Subpart DDDDD Table 3 #1]

(16) Boilers without a continuous oxygen trim system and with a heat input capacity greater than 10 MMBtu/hr must have a tune-up and inspection completed annually (no more than 13 months after the previous tune-up and inspection) as specified in 40 CFR 63. 7540(a)(10) and Table 3 #3 of Subpart DDDDD. The inspection includes measuring the concentration of CO in the effluent gas stream in ppmv and oxygen in volume percent, at high fire or typical operating load and both before and after the tune-up; and maintaining a record/report of the results of the inspection and the fuel(s) burned in the boiler during the yearif capable of burning more than one type of fuel. For an existing boiler, an initial tune-up must be completed no later than 1/31/16.

[40 CFR 63.7540(a)(10) and (13)], [40 CFR 63.7515(d)], [40 CFR 63.7510(e)-existing and (g)-new], and [40 CFR Part 63, Subpart DDDDD Table 3 #3]

(17) Boilers with a continuous oxygen trim system that maintains an optimum air to fuel ratio must have a tune-up and inspection completed every 5 years (no more than 61 months after the previous tune-up and inspection) as specified in 40 CFR 63. 7540(a)(10) and Table 3 #1 of Subpart DDDDD. The inspection includes measuring the concentration of CO in the effluent gas stream in ppmv and oxygen in volume percent, at high fire or typical operating load and both before and after the tune-up; and maintaining a record/report of the results of the inspection and the fuel(s) burned in the boiler during the yearif capable of burning more than one type of fuel. For an existing boiler, an initial tune-up must be completed no later than 1/31/16.

[40 CFR 63.7540(a)(10) and (13)], [40 CFR 63.7515(d)], [40 CFR 63.7510(e)-existing and (g)-new], and [40 CFR Part 63, Subpart DDDDD Table 3 #1]

(18) A boiler, subject to the emissions standards in Table 2 of Subpart DDDDD to Part 63, must be operated to meet the work practice standards of Table 3 #5 during startups and Table 3 #6 during shutdowns.

[40 CFR 63.7530(h)] and [40 CRFR Part 63, Subpart DDDDD Table 3 #5 & #6]

(19) The boiler and associated air pollution control and monitoring equipment must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.

[40 CFR 63.7500(a)(3)]

(20) All continuous monitoring system (CMS) shall be installed, operational, and the data verified, as specified in 40 CFR 63.8 and Subpart DDDDD, either prior to or in conjunction with conducting performance tests under 40 CFR 63.7 and 40 CFR 63.7520. The permittee shall maintain and operate each CMS as follows:

a. The permittee shall maintain and operate each CMS in a manner consistent with safety and good air pollution control practices for minimizing emissions, as specified in 40 CFR 63.6(e)(1).

b. The permittee shall keep the necessary parts for routine repairs and maintenance of the CMS equipment readily available.

c. All continuous emissions monitoring system (CMS) must be installed at a location that accurately measures the exhaust emissions representative of the emissions unit (e.g., downstream of the last control device) and according to the procedures documented in the applicable performance specification; and any continuous parameter monitoring system (CPMS) shall be installed to accurately measure the process and/or the control device parameters.

d. Verification of the operational status of each CMS shall include the completion of the manufacturer's written specifications or the recommendations for installation, operation, and calibration of the system.

e. The read out, (the visual display or measured record of the CMS) or other indication of operation, from any CMS required for compliance with the emission standard, shall be readily accessible for operational control and visible for monitoring and recording by the operator of the equipment.

f. Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS shall be maintained in continuous operation.

g. All CMS for measuring emissions (other than opacity) shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive minute of operations (Ohio policy), with an average recorded for each 15-minute period. Data from the CEMS (excluding that collected during calibration, quality assurance, or maintenance activities, out-of-control periods, and/or CEMS breakdown) shall be reduced to 1-hour averages, computed from the four 15-minute averages.

h. All COMS shall 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.

[40 CFR 63.8(c)(1) through (4)] and [40 CFR 63.8(g)(2)]

d) Monitoring and/or Recordkeeping Requirements

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

Each continuous 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.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacitymonitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request. The permittee shall maintain records of the following data obtained by the continuous opacity monitoringsystem: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, andmagnitude of manual calibration adjustments.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13 and 40 CFR Part 60, Appendix B]]

(2) The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal and analyze the coal sample for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods to be used to determine the ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal; ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rules 3745-18-04(D)(3)(c) and 3745-77-07(C)(1)]

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

[Authority for term: OAC rules 3745-18-04(D) and 3745-77-07(C)(1)]

(4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable pressure drop across the baghouse has been established to be not less than 5.8 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on an hourlybasis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit,the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) To obtain an exemption pursuant to OAC rule 3745-17-07(A)(3)(a)(i) and/or (A)(3)(b)(i), from operating the fabric filter baghouse for periods of startup or shutdown, the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b) during periods of shutdown until the inlet temperature of the baghouse drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i). An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

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

[Authority for term: OAC rules 3745-17-07(A)(3) and 3745-77-07(C)(1)]

(7) For each boiler burning more than one type of fuel, an initial fuel analysis must be conducted for each type of fuel burned in the boiler in accordance with 40 CFR 63.7521 and Table 6 to Part 63 Subpart DDDDD. An initial fuel analysis shall be conducted in conjunction with the initial performance test.Fuel analyses are not required for fuels used for only startup, unit shutdown, and transient flame stability purposes; and fuel analyses are not required for boilers that burn a single type of fuel, or for natural gas, refinery gas, or other gas 1 fuels. An initial fuel analysis is only required for fuels burned in boilers subject to emission limits for Hg and HCl in Table 2to the subpart.For solid and liquid fuels an initial fuel analyses must be conducted for Cl and Hg; and for gaseous fuels, not exempted in 40 CFR 63.7510(a)(2)(i) and (ii), an initial fuel analysis must be conducted for Hg. The maximum Cl and Hg input shall be calculated in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM).

[40 CFR 63.7510(a)(2) and (b)] and [40 CFR 63.7530(a) and (b)]

(8) If demonstrating compliance with HCl, Hg, or TSM through fuel analyses, monthly fuel analyses must be conducted according to the procedures found in 40 CFR 63.7521 and Table 6 to this subpart and the site-specific fuel analyses plan. If each of 12 consecutive monthly fuel analyses demonstrates emissions to be 75% or less of the HCl, Hg, and/or TSM emission limit, the fuel analysis frequency may be conducted quarterly, instead of monthly, for the pollutant and fuel meeting this exception. With any fuel analysis showing 75% of the applicable emission limit(s) to be exceeded, fuel sampling and

analyses will revert to monthly until another 12 consecutive months demonstrate the emissions to be 75% or less of the applicable limit. Each monthly fuel sample collected for analyses must be separated by at least 14 calendar days from the previous sample collected for analyses. The maximum Cl, Hg, and TSM (if opting to comply with TSM) input shall be calculated in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM); and the HCl, Hg, and TSM emission rates shall be calculated in accordance with 40 CFR 63.7530(c) using Equations 15 (for 90th percentile confidence level pollutant concentration), 16 (for HCl), 17 (for Hg) and 18 (for TSM). The data, calculated to pounds of pollutant per MMBtu per Table 6, shall be reduced to 12-month rolling averages at the end of 12 months. The rolling 12-month average emissions, established through the monthly fuel analyses, shall be maintained at or below the applicable emission limit for HCl, Hg, or TSM as identified in Table 2 to Subpart DDDDD. A fuel analysis(es) must be conducted before burning a new fuel not previously tested.

[40 CFR 63.7505(c)], [40 CFR 63.7510(a)(2) and (b)], [40 CFR 63.7515(e)], [40 CFR 63.7521], [40 CFR 63.7530(b) and (c)], and [40 CFR Part 63, Subpart DDDDD Table 8 #8]

(9) Where demonstrating compliance with an opacity limit using a continuous opacity monitoring system (COMS), it shall be installed, operated, and certified according the procedures specified in 40 CFR 63.7525(c), 40 CFR 63.8, and Performance Specification 1 from Appendix B to 40 CFR Part 60. Performance evaluations of the COMS shall be conducted according to Performance Specification 1 and 40 CFR 63.8(e). The COMS must complete a minimum of 1 cycle of sampling and analyzing for each successive 10-second period and 1 cycle of data recording for each successive 6-minute period. The data must be reduced to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period, as specified in 40 CFR 63.8(g)(2), and the daily block average shall be calculated. The site-specific monitoring plan must include procedures and acceptance criteria for operating and maintaining each COMS, including at a minimum a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit. Records shall be maintained for all periods when the COMS is out of control (a deviation from the monitoring requirements), including any periods the COMS fails to pass a daily calibration drift assessment, quarterly performance audit, or annual zero alignment audit.

[40 CFR 63.7525(c)], [40 CFR 63.8], and [40 CFR Part 63, Subpart DDDDD Table 8 #1]

(10) For a boiler equipped with fabric filter control and demonstrating compliance using a bag leak detection system, it shall be installed, calibrated, and maintained in accordance with 40 CFR 63.7525(j) and operated so that the alarm does not sound more than 5% of the operating time during each 6-month period. Corrective action must be initiated within 1 hour of an alarm; and records must be maintained for the date, time, and duration of each alarm, the time corrective action was initiated and completed, the cause of the alarm and corrective actions taken. A record must be kept for the percent of the operating time during each 6-month period that the alarm sounds. Performance evaluations shall be conducted in accordance with the site-specific monitoring plan and shall be consistent with the guidance provided in EPA-454/R-98-015 (see 40 CFR 63.14).

[40 CFR 63.7525(j)], [40 CFR 63.7530(b)(4)], [40CFR 63.7540(a)(7)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #3 and 8 #3]

(11) For a boiler equipped with a wet PM scrubber, it shall be equipped with CPMS to measure the pressure drop and liquid flow rate. The CPMS shall complete a minimum of one cycle of sampling and analyzing for each successive 15-minute period, with a minimum of 4 successive cycles of operation for each valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average pressure drop and liquid flow rate for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually, with daily checks of the pressure drop for obstruction or pluggage.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d), (e), and (f)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #1 and 8 #4]

(12) For a boiler equipped with a wet acid gas (HCl) scrubber, it shall be equipped with CPMS to measure the effluent pH, liquid flow rate, and pressure drop. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average pH and liquid flow rate for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually for the pressure and flow monitors and quarterly for the pH monitor (including a 2-point calibration with buffer solutions); with daily checks of the pH and the pressure drop (for obstruction or pluggage).

[40 CFR 63.7530(b)(4)(i)], [40 CFR 63.7525(d), (e), (f), and (g)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #2 and 8 #5]

(13) For a boiler equipped with an electrostatic precipitator (ESP) and wet scrubber, it shall be equipped with aCPMS to measure the total secondary electric power input (voltage and current) to the precipitator collection plates. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average total secondary electric power input for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (h)], [40 CFR Part 63, Subpart DDDDD Table 4 #4]

(14) For a boiler equipped with a dry control electrostatic precipitator (ESP) and not required to install PM CPMS, the opacity shall be maintained at less than or equal to 10% as a daily block average and COMS shall be installed, certified, operated, and maintained meet the requirements of 40 CFR 63.7525(c) and 40 CFR 63.8.

[40 CFR Part 63, Subpart DDDDD Table 4 #4a and Table 8 #1]

(15) For a boiler equipped with a dry scrubber with sorbent injection, it shall be equipped with a CPMS to measure the sorbent injection rate. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average sorbent injection rate for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (i)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #5 and 8 #6]

(16) For a boiler equipped with a dry scrubber with activated carbon injection, it shall be equipped with a CPMS to measure the activated carbon injection rate. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average carbon injection rate for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (i)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #5 and 8 #6]

(17) For boilers subject to a CO emission limit and using the option to install an oxygen analyzer, the system shall monitor the oxygen in the boiler flue gas and it shall be installed, calibrated, and maintained in accordance with the manufacturer's recommendations.

[40 CFR 63.7525(a)], [40 CFR 63.7575], and [40 CFR Part 63, Subpart DDDDD Tables 4 #9 and 8 #9]

(18) For boilers subject to a CO emission limit and using the option to install an CO CEMS, the CEMS shall be install, certified, operated, and maintained in accordance with Performance Specification 4, 4A, or 4B of Part 60 Appendix B, 40 CFR 63.7525(a), and 40 CFR 63.8. The CO CEMS data shall be reduced as specified in 40 CFR 63(g)(2); and the 1-hour arithmetic averages, corrected to 3% O_2 on a dry basis, and in part per million (ppm) CO concentration, shall be used to calculate each daily average, which shall be used to calculate a 30-day or 10-day (as applicable) rolling average CO concentration of the stack gas. Carbon monoxide must be continuously monitored in accordance with 40 CFR 63.7525(a) and 40 CFR 63.7535 and the records of CO levels must be maintained in accordance with 40 CFR 63.7555(b). Records shall also be maintained for the results of CO CEMS performance audits and the date(s) and duration of periods when the CO CEMS is out of control, including the corrective actions necessary to return the CO CEMS to operation consistent with the site-specific monitoring plan for CEMS.

[40 CFR 63.7525(a)], [40 CFR 63.7510(c)], [40 CFR 63.7540(a)(8)], [40 CFR 63.8], and [40 CFR Part 63, Subpart DDDDD Table 8 #10]

(19) For boilers subject to a CO emission limit and using the option to install an oxygen trim system, the monitoring system shall maintain excess air at the desired level by providing a feedback signal to the combustion air controller. The permittee shall maintain the oxygen concentration of the stack gas at or above the lowest hourly average O_2 concentration measured during the most recent performance test (Method 10) demonstrating compliance with the CO limit.

[40 CFR 63.7525(a)], [40 CFR 63.7575], and [40 CFR Part 63, Subpart DDDDD Tables 4 #9 and 8 #9]

(20) For boilers equipped with either a wet scrubber or dry sorbent injection system and subject to an HCl emission limit, and where choosing to establish an operating limit based on SO_2 CEMS, the SO_2 CEMS shall be installed, certified, operated, and maintained in accordance with Performance Specification 2 and Part 75 of Title 40, excluding the application of "bias adjustment factors" and "substitute data values" allowed per Part 75. The SO_2 CEMS data shall be used to calculate each daily average, which shall be used to calculate a 30-day rolling average SO_2 concentration of the stack gas, which shall be maintained at or below the highest hourly average SO_2 concentration measured during the most recent compliant HCl performance test.

[40 CFR 63.7525(m)], [40 CFR 63.7530(i)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #10 and 8 #11]

(21) The permittee shall collect the operating load data or steam generation data every 15 minutes, in order to monitor and maintain the operating load such that it does not exceed 110% of the highest hourly average operating load established during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7520(c).

[40 CFR 63.7520(c)] [40 CFR Part 63, Subpart DDDDD Table 4 #8 and Table 8 #10]

(22) The permittee shall only burn fuel types and fuel mixtures that were used to demonstrate compliance with the applicable emissions limit and shall maintain monthly records of fuel usage in each boiler during each reporting period; and in order to demonstrate that all fuel types and mixtures of fuels burned would result in one of the following:

a. lower emissions of HCl, HG, and TSM than the applicable emission limit for each pollutant, if demonstrating compliance through fuel analysis; or

b. lower fuel input of Cl, Hg, and TSM than the maximum values calculated during the last performance test, if demonstrating compliance through performance testing.

[40 CFR 63.7540(a)(2)] and [40 CFR 63.7550(c)]

(23) In order to demonstrate continuous compliance with the requirements of the Part 63, Subpart DDDDD, the required monitoring and data collection systems must be operated at all times the boiler(s) is/are in operation, except for periods of monitoring system malfunction, out of control periods, and required monitoring system quality assurance and/or control activities, including calibration checks, required zero and span adjustments, and scheduled CMS maintenance, as defined in the site-specific

monitoring plan. Monitoring system repairs in response to monitoring system malfunctions or out-of-control periods must be completed as expeditiously as practical.

[40 CFR 63.7535(b)]

(24) Each flow monitoring system used to demonstrate continuous compliance shall meet the following requirements:

a. the flow sensor and other associated equipment shall be installed in a position that provides a representative flow;

b. the flow sensor shall have a measurement sensitivity of no greater than 2% of the design flow rate;

c. the effects of swirling flow or abnormal velocity distributions, due to upstream and downstream disturbances, shall be minimized consistent with good engineering practices; and

d. a performance evaluation of each flow monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test, but no less frequently than annually.

[40 CFR 63.7525(e)]

(25) Each pressure monitoring system used to demonstrate continuous compliance shall meet the following requirements:

a. the pressure sensor shall be installed in a position that provides a representative measurement of pressure;

b. pulsating pressure, vibration, and internal and external corrosion shall be minimized or eliminated consistent with good engineering practices;

c. the pressure sensor shall have a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1% of the pressure monitoring system operating range, whichever is less;

d. the pressure sensor shall be checked at least once each operating day to ensure there is no obstructions or pluggage;

e. a performance evaluation of each pressure monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test but no less frequently than annually; and

f. if the measured pressure exceeds the manufacturer's specified maximum operating pressure range, a performance evaluation shall be conducted in accordance with the monitoring plan and a new pressure sensor shall be installed where required.

[40 CFR 63.7525(f)]

(26) Each pH monitoring system used to demonstrate continuous compliance shall meet the following requirements.

a. the pH sensor shall be installed in a position that provides a representative measurement of scrubber effluent pH;

b. the sample shall be properly mixed and representative of the fluid to be measured;

c. a performance evaluation of the pH monitoring system shall be conducted, in accordance with the monitoring plan, and at least once each process operating day; and

d. performance evaluations, including a 2-point calibration with buffer solutions, shall be conducted at the time of each performance test and no less frequently than quarterly.

[40 CFR 63.7525(g)]

(27) Each secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber shall meet the following requirements:

a. sensors shall be installed to measure secondary voltage and current to the precipitator collection plates; and

b. a performance evaluation of the electric power monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test but no less frequently than annually.

[40 CFR 63.7525(h)]

(28) Where using a monitoring system to measure sorbent injection rate (e.g., weight belt, weigh hopper, or hopper flow measurement device) to demonstrate compliance, the system shall meet the following requirements:

a. the sorbent injection rate measurement system shall provide a representative measurement of the total sorbent injection rate; and

b. a performance evaluation of the sorbent injection monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test but no less frequently than annually.

[40 CFR 63.7525(i)]

(29) Where demonstrating compliance with the Hg standard using a CMS, a Hg CEMS may be installed, certified, maintained, and operated in accordance with Performance Specification 12A of Part 60 Appendix B; or a sorbent trap based integrated monitor may be installed and operated in accordance with Performance Specification 12B of Part 60 Appendix B. The CMS outlet data shall be calculated to pounds per MMBtu using the equations in Method 19 of 40 CFR Part 60, Appendix A-7.

[40 CFR 63.7525(l)] and [40 CFR 63.7540(a)]

(30) The permittee shall maintain records of the following information where a fuel analysis is required or used to demonstrate compliance:

a. monthly records of the fuel(s) burned in each boiler, including the type of fuel, the amount burned, and the fraction of total heat input from each fuel type burned;

b. a copy of the calculations and supporting documentation from the initial fuel analysis for the maximum amount of Cl entering the boiler through the fuel(s) burned in the unit, using Equation 7 of 40 CFR 63.7530(b)(1); and demonstrating compliance with the HCl emission standard through fuel analyses, a copy of all calculations completed to determine the 90th percentile confidence level pollutant concentration, in pounds per million Btu, using Equations 15 and 16 of 40 CFR 63.7530(c); and

c. a copy of the calculations and supporting documentation from the initial fuel analysis for the maximum amount of Hg entering the boiler through the fuel(s) burned in the unit, using Equation 8 of 40 CFR 63.7530(b)(2); and if demonstrating compliance with the Hg emission standard through fuel analyses, a copy of all calculations completed to determine the 90th percentile confidence level pollutant concentration, in pounds per million Btu, using Equations 15 and 17 of 40 CFR 63.7530(c);

d. if demonstrating compliance with the TSM emission standard through fuel analyses, a copy of the calculations and supporting documentation of the maximum amount of TSM entering the boiler through the solid and/or liquid fuel(s) burned in the unit, using Equation 9 of 40 CFR 63.7530(b)(3); and if demonstrating compliance with the TSM emission standard through fuel analyses, a copy of all calculations completed to determine the 90th percentile confidence level pollutant concentration, in pounds per million Btu, using Equations 15 and 18 of 40 CFR 63.7530(c);

e. the monthly concentrations calculated to pounds of pollutant per MMBtu, and

f. following the first 12 months of compliance, the 12-month rolling average emissions for each pollutant for which compliance is being demonstrated through fuel analyses.

Supporting documentation shall include results of any fuel analyses and the basis for the estimates of the maximum Cl, Hg, and/or TSM input and the HCl, Hg, and/or TSM emission rates. The results from one fuel analysis can be used for all the boilers provided they are all burning the same fuel; however, the pollutant input and/or emission rates shall be calculated for each boiler.

[40 CFR 63.7555(d)(4), (5), and (9)], and [40 CFR 63, Subpart DDDDD Table 8 #8]

(31) If burning a new fuel and compliance with an HCl or TSM emission limit for solid or liquid fuels, or the Hg emission limit was/were demonstrated through fuel analyses, the maximum Cl, Hg, and/or TSM input must be recalculated using Equations 7, 8, and/or 9

of 40 CFR 63.7530(b); and the emission rate must be recalculated using Equations 15 and 16, 17, and/or 18 of 40 CFR 63.7530(c). The recalculated HCl, Hg, and/or TSM emission rate must be less than the applicable emission limit(s). The Cl, Hg, and/or TSM concentration for any new fuel type must be determined in pounds per million Btu, based on supplier data or the facility's fuel analyses, and in accordance with the site-specific fuel analyses plan. The permittee shall determine the fuel(s) or mixture of fuels that will have the highest content of Cl, Hg, or TSM, which may include more than one type of fuel for analyses.

[40 CFR 63.7540(a)(3), (5),and (17)]

(32) If compliance with the HCl or Hg emission limit was demonstrated through performance testing and a new fuel is to be used, the maximum Cl, Hg, and TSM (if complying with TSM) input must be recalculated using Equations 7, 8, and/or 9 of 40 CFR 63.7530. If the results of recalculating the maximum Cl or Hg input are found to be greater than the maximum established during the previous performance test, a new performance test must be conducted within 60 days of burning the new fuel and new operating limits must be established.

[40 CFR 63.7540(a)(4), (6), and (16)]

(33) If complying with the alternative equivalent output-based emission limits, instead of the heat input-based limits in Table 2 to the subpart, the permittee may take credit for implementing energy conservation measures identified in the energy assessment by establishing a benchmark from which emission efficiency credits may be generated. Efficiency credits can be generated if the energy conservation measures were implemented after 1/1/08 and sufficient information is available to determine the appropriate value of the credits. Shutdown boilers cannot be used to generate efficiency credits unless the facility can provide documentation linking the permanent shutdown to energy conservation measures identified in the energy assessment. The requirements for documenting the established benchmark and reductions from energy conservation are identified in 40 CFR 63.7533. The demonstration for efficiency credits must follow the requirements of 40 CFR 63.7533 and must be approved by the Director.

[40 CFR 63.7533]

(34) If electing to demonstrate that a gaseous fuel, other than natural gas or refinery gas, meets the specifications of an "other gas 1 fuel" and the gas constituents could vary above the specifications identified for an "other gas 1 fuel" (40 µg Hg/m^3), monthly fuel specification analyses for Hg is required and the gaseous fuel must be included in a/the site-specific fuel analyses plan. A single fuel sample for each such gaseous fuel type must be obtained in accordance with the sampling procedures listed in Table 6 to the subpart. The concentration of Hg in the fuel must be recorded in units of micrograms per cubic meter, on a dry basis, for each sample of "other gas 1 fuel" and the sampling and testing methods must be conducted in accordance with the procedures in Table 6 to the subpart. The sampling frequency for each "other gas 1 fuel" shall be conducted as follows:

a. if the initial fuel analysis demonstrates that Hg constituents in the gaseous fuel are measured to be greater than 30 micrograms/m^3 of Hg, monthly sampling and analyses shall be conducted;

b. if 12 consecutive monthly fuel analyses demonstrates the Hg constituents to be less than or equal to 30 micrograms/m^3 of Hg, semiannual sampling and analysis shall be conducted;

c. if any semi-annual fuel analyses demonstrates the Hg constituents to exceed 30 micrograms/m^3 of Hg, fuel sampling and analyses shall revert to monthly, until another 12 months of analyses can demonstrate the Hg constituents to be less than 30 micrograms/m^3 of Hg;

d. if the initial fuel analysis demonstrates that the Hg constituents in the gaseous fuels are measured to be equal to or less than 20 micrograms/m^3 of Hg, no further sampling or fuel analysis is required;

e. if the initial fuel analysis demonstrates that the Hg constituents in the gaseous fuels are measured to be greater than 20 micrograms/m^3 of Hg but less than or equal to 30 micrograms/m^3 of Hg, semiannual sampling and analysis shall be conducted;

f. if following 6 consecutive semi-annual fuel analyses it can be demonstrated that the Hg constituents in the gaseous fuels are equal to or less than 20 micrograms/m^3 of Hg, no further sampling or fuel analysis is required;

g. if the initial fuel analysis exceeds 40 micrograms/m^3 of Hg, the boiler(s) burning this gaseous fuel shall not be considered as unit(s) designed to burn gas 1 subcategory fuels and shall instead be required to meet the emission and operating limits for the appropriate subcategory, unless future analyses can meet the requirements above.

[40 CFR 63.7540(c)], [40 CFR 63.7530(g)], and [40 CFR 63.7521(f) through (i)]

(35) If meeting the requirements of a limited-use boiler, the operating hours and fuel usage records shall be maintained for each boiler that is operated under this subcategory. The boiler is restricted to a federally enforceable average annual capacity factor of no more than 10%.

[40 CFR 63.7525(k)] and [40 CFR 63.7575]

(36) The permittee shall maintain records of the following information for the boiler(s) in order to meet the record keeping requirements of 40 CFR 63.7525, 40 CFR 63.7555, 40 CFR 63.10(b) and (c), and to demonstrate compliance with the Subpart DDDDD:

a. a copy of each notification and report that is submitted to comply with Part 63 Subpart DDDDD, including all documentation supporting the Initial Notification and all subsequent Notifications of Compliance Status and/or semiannual compliance reports;

b. records of performance test, opacity and/or visible emission observations, fuel analyses, and performance evaluations of CMS;

c. for each CEMS, COMS, and CMS the following records:

i. records required under 40 CFR 63.10(b)(2)

(a) all required measurements needed to demonstrate compliance with the applicable standard, including but not limited to the 15-minute, 1-hour, 12-hour, 10-day rolling, and/or 30-day rolling averages of CMS data, as applicable; the raw performance testing and performance evaluation measurements; and opacity data from COMS;

(b) the results of all performance tests, CMS performance evaluations, and opacity COMS data;

(c) all measurements as may be necessary to determine conditions of performance tests and performance evaluations;

(d) all CMS calibration checks; and

(e) all adjustments and maintenance performed on the CMS;

ii. monitoring data for COMS during performance evaluations;

iii. results of each inspection, calibration, validation check, system accuracy audits, and zero and span adjustments;

iv. each period of time when the CMS is malfunctioning, inoperative, or out of control and data is not available, to document each deviation;

v. previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3);

vi. the date and time that each deviation started and stopped;

d. the records required in Table 8 to the subpart, i.e., records of all monitoring data and calculated averages for the applicable operating limits, opacity, operating load, and oxygen concentration of exhaust stack, and reduced to the appropriate averaging periods;

e. the monthly fuel usage of each boiler, including the type(s) of fuel and amount(s) used;

f. a copy of the calculations supporting documentation of the maximum Cl fuel input using Equation 7 of 40 CFR 63.7530(b); and if demonstrating compliance with the HCl emission limit through fuel analyses, the HCl emission rate using Equation 16 of 40 CFR 63.7530(c);

g. a copy of the calculations supporting documentation of the maximum Hg fuel input using Equation 8 of 40 CFR 63.7530(b); and if demonstrating compliance with the Hg emission limit through fuel analyses, the Hg emission rate using Equation 17 of 40 CFR 63.7530(c);

h. a copy of the calculations supporting documentation of the maximum TSM fuel input using Equation 9 of 40 CFR 63.7530(b); and if demonstrating compliance with the TSM emission limit through fuel analyses, the TSM emission rates using Equation 18 of 40 CFR 63.7530(c);

i. any records demonstrating stack test emissions were less than 75% of the applicable limit (or less than a special emission limitidentified in footnote "a"to Table 2), and documentation that there were no changes made in source operations, air pollution control equipment, or fuel composition, to qualify for less frequent than annual stack testing;

j. the occurrence and duration (date and time) of each malfunction of any subject boiler and/or the associated air pollution control and monitoring equipment;

k. actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the equipment to normal operations;

l. records of the calendar date, time, occurrence, and duration or each startup and shutdown; and the record of the type(s) and amount(s) of fuels burned during each startup and shutdown;

m. if electing to demonstrate that the boiler meets the specification for Hg for units designed to burn gas 1 (subcategory) fuels, the monthly records (or frequency required by 40 CFR 63.7540(c)) of the calculations and results of the fuel specification for Hg in Table 6;

n. if burning an alternative fuel in a boiler designed to burn gas 1 (subcategory) fuels, i.e., fuels other than natural gas, refinery gas, or gaseous fuels subject to another subpart or part of the CFR, the records of the total hours per calendar year that the alternative fuel was burned and the total hours per calendar year that the boiler operated during periods of gas curtailment or gas supply emergencies;

o. if electing to demonstrate compliance through emissions averaging for existing boilers, the averaging implementation plan; and, in accordance with 40 CFR 63.7522 and 40 CFR 63.7541, all monthly calculations, including monthly records of heat input or steam generation; and after the first year, calculations for each rolling 12-months;

p. if electing to use efficiency credits from energy conservation measures to demonstrate compliance, according to 40 CFR 63.7533, a copy of the Implementation Plan and all data and calculations used to establish the efficiency credits;

q. for each boiler in the limited use subcategory, a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10%; and the fuel usage records for the days the boiler was operating;

r. for units that burn non-hazardous waste (except those burning homogeneous waste identified as exempt under section 129(g)(1) of the Clean Air Act) shall maintain the following records for the non-hazardous waste:

i. if combusting non-hazardous secondary materials that have been determined not to be solid waste, a record that documents how the material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1);

ii. if combusting non-hazardous materials processed from discarded secondary materials, a record that documents how the operations that produced the fuel satisfy the definition of processing in 40 CFR 241.2;

iii. if combusting a fuel that received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), a record that documents how the fuel satisfied the requirements of the petition process; and

iv. if combusting non-hazardous secondary materials as fuel per 40 CFR 241.4, records that document that the material is listed as a non-waste under 40 CFR 241.4(a);

s. records documenting that that each boiler operator has completed training for startup and shutdown procedures; and

t. for each startup and shutdown event, records documenting that the work practice standards of Table 3 #5 for startups and Table 3 #6 for shutdowns are met.

These records shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

*The information needed to demonstrate compliance with the SSMP plan may be recorded using a “checklist” or some other effective form of record keeping, in order to minimize the recording burden for conforming procedures.

[40 CFR 63.7525(d)], [40 CFR 63.7555] and [40 CFR 63.7560], and [40 CFR 63, Subpart DDDDD Table 3 #5 and #6]

(37) Data recorded during monitoring system malfunctions or out-of-control periods, repairs, or required monitoring system quality assurance and control activities shall not be used in data averages and calculations used to report emissions or operating levels used for demonstrating compliance. Data collected during all other periods of time shall be used in assessing compliance with the emissions limits (CEMS) and the operating limits of the control device or system. Records shall be made available, upon request, of results of CMS performance audits and the dates and duration of each period when the CMS is out of control, to completion of the corrective actions needed to return the CMS to operation consistent with the site-specific monitoring plan and Tables 4 and 8 to Subpart

DDDDD. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements.

[40 CFR 63.7525(d)] and [40 CFR 63.7535(c) and (d)]

(38) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for particulate emissions are the opacity of the visible particulate emissions from the baghouse exhaust stack, the flue gas temperature prior to the baghouse and the baghouse pressure drop.

Stack opacity is measured and recorded by the certified continuous opacity monitoring (COM) system. The visible particulate emissions indicator range is each six-minute block average with an opacity action level value greater than 10%. When the opacity value is greater than 10%, corrective action (including, but not limited to, an evaluation of the emissions unit the COM system and the baghouse) will be required.

The ranges for normal operation are:

Parameter	Indicator Range
Opacity	≤10%
Flue gas temperature prior to the baghouse	≥ 250 °F
Baghouse Pressure Drop	≥ 5.8”

When the opacity exceeds 10% for more than six consecutive minutes and the hourly average of one of the above parameters is outside of the indicator ranges above, additional corrective action focused on the cyclone and/or baghouse will be required. When opacity exceeds 10% for more than six consecutive minutes and the hourly averages for the pressure drop and temperature parameters are within the indicator ranges above, corrective action focused on the emission unit will be required.

Upon detecting an excursion of the visible particulate emission value above 10% opacity, the owner or operator shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be

required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit reports (in electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and 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 visible 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

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

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

b. the calculated SO_2 emission rate (pounds SO_2/mmBtu actual heat input) from each shipment of coal received.

[Authority for term: OAC rules 3745-18-04(D) and 3745-77-07(C)(1)]

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

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in (3)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in (3)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in (3)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rules 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C); and OAC rule 3745-77-07(C)(1)]

[Compliance Assurance Monitoring Plan: 40 CFR Part 64.9(a)]

(4) The site-specific fuel analyses plan must be submitted no later than 60 days before the date of the intended initial compliance demonstration and it shall include the following information, as identified in 40 CFR 63.7521(b):

a. the identification of all fuel types anticipated to be burned in each boiler;

b. for each anticipated fuel type, a statement as to whether the fuel supplier or the facility will be conducting the fuel analyses;

c. for each anticipated fuel type, a detailed description of the sampling location(s) and specific procedures to be used for collecting and preparing composite samples if the procedures are different from those identified in 40 CFR 63.7521(c) or (d); and

d. for each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels to be used for the measurement of Cl or Hg.

[40 CFR 63.7521(b)(2)]

(5) The permittee shall submit, to the appropriate Ohio EPA District Office or Local Air Agency, the following notifications in accordance with the applicable requirements of 40 CFR 63.7545, 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and (6), and 40 CFR 63.9(b) through (h):

a. an Initial Notification that the source is subject to Part 63 Subpart DDDDDshall be submitted no later than 5/31/13 for any boilerwith a startup date before 1/31/13; or

b. semiannual, annual, or 5 year (as applicable) compliance reports containing the information identified in 40 CFR 63.7550;

c. a Notification of Intent to conduct a performance test or CMS performance evaluation must be submitted at least 60 days before the performance test or performance evaluation is scheduled to begin; the notification must include the site specific test plan and site-specific performance evaluation test plan;

d. the Initial Notification of Compliance shall including all performance test and fuel analyses results completed to demonstrate compliance; and the notification must be submitted before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations. The Initial Notification of Compliance Status report must contain the following information:

i. A description of the facility boilers including:

(a) identification of the subcategory each boiler is in;

(b) the design heat input capacity of the/each unit;

(c) a description of the add-on controls used on each boiler;

(d) description of the fuel(s) burned,

(e) identification of fuel(s) that were determined to be a non-waste or fuel(s) processed from discarded non-hazardous secondary materials under 40 CFR 241.3; and

(f) the justification for the selection of fuel(s) burned during the compliance demonstration.

ii. a summary of the results of all performance tests and fuel analyses, including the calculations used to demonstrate initial compliance and the operating limits that have been established;

iii. identification of whether compliance will be demonstrated with the PM emission limit or the alternative TSM emission limit;

iv. identification of whether compliance will be demonstrated with the output-based emission limits (lb/MMBtu steam output or lb/MWh) or the heat input-based emission limits (lb/MMBtu or ppm);

v. if not using CO CEMS, a summary of the maximum carbon monoxide emission levels recorded during the performance test, demonstrating that the applicable emission standard in Table 2 has or has not been met;

vi. identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis;

vii. identification of any plan to demonstrate compliance by emissions averaging for existing boilers, which must contain the emission level that

was being achieved or the control technology employed on 1/31/13, for each boiler participating in the averaging option;

viii. identification of any plan to demonstrate compliance by using efficiency credits through energy conservation;

ix. a signed certification that all applicable emission limits and work practice standards have been met.

x. a description of any deviation(s) from an emission limit, work practice standard, or operating limit, the duration of the deviation, and the corrective action taken.

xi. the following certification(s) of compliance, as applicable, must be signed by a responsible official:

(a) certification that the facility has complied with the required initial tune-up in accordance with 40 CFR 63.7540(a)(10)(i) through (vi);

(b) for existing units, certification that the facility has completed a one-time energy assessment performed according to 40 CFR 63.7530(e) and that it is an accurate depiction of the facility at the time of the assessment; and

(c) except for boilers burning natural gas, refinery gas, or other gas 1 fuel, certification that no secondary materials that are solid waste were combusted in any affected unit;

e. if the unit is designed to only burn natural gas, refinery gas, or “other gas 1 fuel”, as defined in 40 CFR 63.7575;

f. if the unit is designed to burn natural gas, refinery gas, or other gas 1 fuels, and there are plans to use an alternative fuel during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, a notification of alternative fuel use must be submitted within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification must include the following information:

i. facility name and address;

ii. identification of the affected unit(s);

iii. the reason natural gas or equivalent fuel cannot be used;

iv. the date when the natural gas curtailment was declared or the natural gas supply interruption began;

v. the type of alternative fuel to be used; and

vi. the dates when the alternative fuel use is expected to begin and end.

g. if there are any plans to switch fuels or make a physical change to a boiler, and this fuel switch or change to the boiler may result in the applicability of a different subcategory, notification of the switch must be made at least 30 days prior to the date of the switch or change and this notification must identify:

i. the name of the facility, the location of the source, the boiler(s) that will switch fuels or were physically changed;

ii. the applicable subcategory of the boiler(s) before and after the switch;

iii. the date on which the fuel switch or physical change occurred;

iv. the planned date for the fuel to be switched; and

v. the date of the notice.

[40 CFR 63.7545], [40 CFR 63.7530(e), (f), and (g)], and [40 CFR 63.9(b) through (h)]

(6) The permittee shall submit each applicable report in Table 9 to Part 63, Subpart DDDDD. For boilers that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively, and not subject to emission limits or operating limits, only an annual, biennial, or 5-year compliance report is required.

The first compliance report must cover the period beginning on the compliance date, 1/31/16 for existing boilers, and ending on June 30 or December 31, whichever date is the first date that occurs 180 days after the compliance date (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report). Unless otherwise approved, the first compliance report must be postmarked or submitted no later than July 31 or January 31, following the end of the first calendar half after the compliance date. The first annual, biennial, or 5-year compliance report must be postmarked or delivered no later than January 31. Each subsequent compliance report must be submitted in accordance with the same applicable schedule; and, except where only required to submit annual, biennial, or 5-year reports, must cover each semiannual reporting period from January 1st through June 30th and from July 1 through December 31 of each year.

[40 CFR 63.7550(b)]

(7) The permittee shall submit semiannual compliance reports and deviation reports as required per 40 CFR 63.7550 and Table 9 to Part 63 Subpart DDDDD, unless the boiler is only subject to an annual or 5-year tune-ups, where the compliance report will instead be submitted annually or every 5 years, correlating with the tune-up schedule identified in Table 3 to Subpart DDDDD. The compliance reports shall include the information identified in 40 CFR 63.7550(c) and deviation reports shall include the information identified in 40 CFR 63.7550(d) and (e). The Compliance Reports for Part 63, Subpart DDDDD must contain the following information as applicable for each boiler:

a. the company and facility name and address;

b. process unit information, emissions limitations, and operating parameter limitations;

c. the date of report and beginning and ending dates of the reporting period;

d. the total operating time during the reporting period;

e. if using a CMS, including CEMS, COMS, or CPMS to demonstrate compliance, the monitoring equipment manufacturer(s) and model numbers, and date of the last certification or audit for each CMS;

f. the total fuel use by each individual boiler subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure;

g. a summary of the results of the annual performance tests for the boilers subject to an emission limit, a summary of any fuel analyses associated with performance tests, and documentation of the operating limits that were reestablished during the performance test;

h. the calculated 30-day rolling average values based on daily CEMS (PM, CO and/or Hg) and CPMS data (PM CPMS output or parameter monitoring results);

i. if qualifying for the less frequent than annual performance testing in accordance with 40 CFR 63.7515(b) or (c), where emissions are at or below 75% of the applicable emission limit for 2 consecutive years, the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions;

j. a signed statement indicating that no new types of fuel were burned in each affected boiler subject to an emission limit; or, if a new type of fuel was used and subject to a HCl or Hg emission limit, or TSM if opting to comply with TSM standard:

   i. the calculation of the maximum Cl, Hg, and/or TSM input, using Equations 7 (for Cl), 8 (for Hg), or 9 (for TSM) of 40 CFR 63.7530(b), that demonstrates the unit is still within its maximum Cl, Hg, and/or TSM input level established during the previous performance testing; and

   ii. in addition, for boilers that demonstrate compliance through fuel analyses, the calculation of the HCl, Hg, and/or TSM emission rate using Equations 15 for the 90th percentile confidence level fuel pollutant concentration and Equations 16 (for HCl), 17 (for Hg), and/or 18 (for TSM) of 40 CFR 63.7530(c) that demonstrates the unit is still meeting the emission limit for HCl, Hg, and/or TSM;

k. if it cannot be demonstrated that a new type of fuel can comply with the applicable maximum Cl, Hg, and/or TSM input using Equation 7, 8, or 9 of 40 CFR 63.7530(b), a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel;

l. a summary of any monthly fuel analyses conducted to demonstrate compliance according to 40 CFR 63.7521 and 40 CFR 63.7530 and calculated emissions for individual boilers subject to emission limits; and following the first 12 months of compliance, the rolling 12-month average emissions for each month during the compliance period;

m. any fuel specification analyses conducted in accordance with 40 CFR 63.7521(f) and 40 CFR 63.7530(g);

n. if electing to demonstrate that a gaseous fuel meets the specification of "other gas 1 fuel", as defined in 40 CFR 63.7575, a signed certification stating that the fuel analyses, conducted in accordance with 63.7521(f) through (i) and at the frequency identified in 40 CFR 63.7540(c), demonstrates that the Hg constituents in the gaseous fuel will never exceed 40 micrograms/m^3 of Hg;

o. if there are no deviations from any emission limits or operating limits, a statement that there were no deviations from the emission limits or operating limits during the reporting period;

p. if there were no deviations from the monitoring requirements including no periods during which the CMSs (CEMS, COMS, and CPMS), were out of control as specified in 40 CFR 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period;

q. if a malfunction occurred during the reporting period, the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded;

r. a description of actions taken during a malfunction of a boiler, or associated air pollution control device or CMS to minimize emissions in accordance with 40 CFR 63.7500(a)(3), including actions taken to correct the malfunction;

s. the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively; and include the date of the most recent burner inspection if the tune-up was not done annually, biennially, or on a 5-year period, as applicable, if delayed until the next scheduled or unscheduled shutdown;

t. if demonstrating compliance through emission averaging, certification that the emission level achieved or the control technology employed is no less stringent that the level or control technology contained in the notification of compliance status;

u. if subject to an emission limit in Table 2 to Subpart DDDDD, the date of each startup and shutdown event during the compliance period; and either a statement affirming that the work practice standards identified in Table 3 #5 and #6 were met; or identification of the work practice standards identified in Table 3 that were not met;

v. a 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;

w. for each deviation from an emission limit or operating limit that occurs at each individual boiler that is not monitored by a CMS to comply with the emission limit or operating limit, the following information is required:

   i. a description of the deviation and which emission limit or operating limit was exceeded or not met;

   ii. information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken; and

   iii. if the deviation occurred during an annual performance test, the date the annual performance test was completed;

x. for each deviation from an emission limit, operating limit, and monitoring requirement, including a deviation from the site-specific monitoring plan, where a CMS is used to demonstrate compliance, the following information is required:

   i. the date and time that each deviation started and stopped and description of the nature of the deviation;

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

   iii. the date, time, and duration that each CMS was out of control, including the information in 40 CFR 63.8(c)(8);

   iv. the date and time that each deviation started and stopped;

   v. 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;

   vi. a characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;

   vii. a summary of the total duration of CMS's 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;

   viii. a brief description of the source for which there was a deviation;

ix. a description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation; and

x. the date of the latest CMS certification or audit for the system for which there was a deviation.

[40 CFR 63.7550(a) through (e)], [40 CFR 63.7535(d)], [40 CFR 63.7540(b)], [40 CFR 63.7515(f)], and [40 CFR Subpart DDDDD Tables 8 and 9]

(8) Within 60 days after the date of completing each performance test, associated fuel analyses, CEMS performance evaluations, and/or relative accuracy test audits, the test results and compliance reports required in 40 CFR 63.7550(b) must be submitted electronically to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (http://www.epa.gov/cdx). Performance test data must be submitted in the file format generated through EPA's Electronic Reporting Tool (ERT) at *http://www.epa.gov/ttn/chief/ert/index.html*. Only data collected using test methods on the ERT website are subject to being submitted electronically to WebFire. Test data must also be submitted to the Ohio EPA through the "eBusiness Center, Air Services" website.

[40 CFR 63.7550(h)], [40 CFR 63.72525(b)(5)(iv)], and [40 CFR 63.7515(f)]

f) Testing Requirements

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

a. Emission Limitation:

NOx emissions shall not exceed 0.10 lb per MMBtu of actual heat input while burning natural gas.

Applicable Compliance Method:

Compliance with the lbs per million Btu emission limitation is demonstrated by dividing the applicable AP-42 (Supplement D, Jul. 1998) emission factor for NOx from table 1.4-1 (for units with heat input capacities between 10 and 100 million Btu/hr and controlled by low-NOx burners) by the assumed heat content ofnatural gas (1,000 Btu/cubic foot) as follows:

(83 /bs NOx/million cubic feet)/(cubic foot/1,000 Btu)= 0.083 lb NOx/million Btu

Emissions testing may also be required in accordance with 40 CFR 60, Appendix A, Method 7. No testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance with the visible PE limitation is demonstrated by the monitoring and recordkeeping requirements specified in d)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

PE shall not exceed 0.15 lb per million Btu of actual heat input.

Applicable Compliance Method:

PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office. See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:

SO_2 emissions shall not exceed 4.7 lbs per MMBtu of actual heat input.

Applicable Compliance Method:

Compliance with the SO2 emission limitation shall be based on the record keeping specified in d)(2) and d)(3) and the following equation:

SO_2 emissions from solid fuel samples shall be calculated as follows:

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

where:

ER = the emission rate in pounds of SO_2 per MMBtu;

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

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

[OAC rule 3745-18-04(F)(1)]

If required, SO_2 emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-

approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

[Authority for term: OAC rules 3745-18-04(F)(1) and 3745-77-07(C)(1)]

e. Emission Limitation:

NO_x emissions shall not exceed 0.30 lb per MMBtu of actual heat input while burning coal.

Applicable Compliance Method:

If required, compliance with the lb per MMBtu NO_X emission limitation shall be demonstrated based upon emissions testing performed according to Method 7 or 7E in Appendix A of 40 CFR Part 60.

[Authority for term: OAC rules 3745-110-03(B) and 3745-77-07(C)(1)]

f. Emission Limitations:

The emissions from this boiler shall not exceed the following emission limits or the limitations specified in the most recent amendment to 40 CFR Part 63, Subpart DDDDD, and as identified in Table 2 for existing units:

4.0E-02 lb of filterable particulate matter (PM)/MMBtu of heat input; or

5.3E-05 lb of Total Selected Metals (TSM)/MMBtu of heat input; and

2.2E-02 lb of hydrogen chloride (HCl)/MMBtu of heat input; and

5.7E-06 lb of mercury (Hg)/MMBtu of heat input; and

160 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, 3-run average; or, if using CEMS:

340 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, as a 30-day rolling average.

ORoutput limits (option)

4.2E-02 lb of PM/MMBtu of steam output; or

5.6E-05 lb of TSM/ MMBtu of steam output; and

2.5E-02 lb of hydrogen chloride (HCl)/MMBtu of steam output; and

6.4E-06 lb of mercury (Hg)/MMBtu of steam output; and

0.14 lb CO/MMBtu of steam output, 3-run average.

Applicable Compliance Method:

For existing boilers, the permittee shall conduct an initial performance test on or before 7/29/16 to demonstrate compliance with the requirements of Part 63 Subpart DDDDD. The appropriate tests methods from Table 5 to Subpart DDDDD shall be conducted while establishing operating limits in accordance with Table 7 to the subpart. Boilers equipped with CEMS for Hg are exempt from the performance testing requirements for Hg and the sorbent or carbon injection operating limits for a dry scrubber if meeting the performance evaluation and certification requirements for Hg CEMS and 40 CFR 63.7540(a)(14).

g. Emission Limitation:

CO emissions shall not exceed the applicable limitation identified in Table 2 in 40 CFR Part 63, Subpart DDDDD, in ppm by volume on a dry basis, corrected to 3 % oxygen; and

The oxygen content must be maintained at or above the lowest hourly average O_2 level measured during the most recent CO performance test.

Applicable Compliance Method:

Each boiler subject to a CO emission limit in Table 2 to SubpartDDDDD, shall be equipped with either an oxygen analyzer system, as defined in 40 CFR 63.7575, or CEMS for both CO and oxygen. The initial compliance demonstration for CO shall include a performance test for CO according to Table 5 (Method 3A or 3B) to the subpart or conduct a performance evaluation of the CEMS for CO. Compliance with the CO standard shall be demonstrated as follows and as applicable depending on the compliance option:

i. Where electing to install CEMS for CO and O_2 the following requirements shall be met:

(a) The CO CEMS shall be installed, certified, operated, and maintained in accordance Performance Specification 4, 4A, or 4B at 40 CFR Part 60, Appendix B.

(b) The O_2 CEMS shall be installed, certified, operated, and maintained in accordance Performance Specification 3 at 40 CFR Part 60, Appendix B.

(c) The CO CEMS, O_2 CEMS, and/or oxygen analyzer shall be installed certified, operated, and maintained in accordance with the site-specific monitoring plan, and the requirements in 40 CFR 63.7525(a) and 63.7540(a)(8).

(d) The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler's control device.

(e) The permittee shall conduct, or have conducted, performance evaluations of the COCEMS on or before 7/29/16 for existing boilers. The performance evaluation of each CO CEMS shall be conducted in accordance with Performance Specification 4, 4A, or 4B (from 40 CFR Part 60 Appendix B), and as required in 40 CFR 63.7525(a), 40 CFR 63.8(e), and the performance evaluation test plan.

(f) Relative accuracy testing of the CO CEMS must be conducted concurrently (or within a 30 to 60 minute period) with Method 10, 10A, or 10B, 40 CFR Part 60, Appendix A-4 and the boiler must be operating at representative conditions.

(g) Quality assurance procedures, i.e., quarterly accuracy determinations and daily calibration drift tests, shall follow Procedure 1 of Appendix F to Part 60.

(h) The measurement span value of the CO CEMS shall be 2 times the applicable CO emission limit, expressed as a concentration.

(i) The CO and O_2 CEMS data shall be collected concurrently.

(j) The CO and O_2 CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive minute of operations (Ohio policy), with an average recorded for each 15-minute period. Data from the CEMS (excluding that collected during calibration, quality assurance, or maintenance activities, out-of-control periods, and/or CEMS breakdown) shall be reduced to 1-hour averages, computed from the four 15-minute averages and corrected to 3% oxygen on a dry basis, in ppm.

(k) At least two 15-minute data values must be collected during any hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(l) Equation 19-19 in Section 12.4.1 of Method 19 at Part 60 Appendix A-7 shall be used for calculating the average CO concentration from the hourly values. The 1-hour arithmetic averages shall be used to calculate the 30-day or 10-day rolling averages, as applicable.

(m) The permittee shall submit written notification of the date of the CEMS performance evaluation to both the Central Office and the appropriate District Office or local air agency of the Ohio EPA, Division of Air Pollution Control, at least 60 days prior to the date the performance evaluation is scheduled to begin.

The minimum oxygen level operating limit shall be established as the lowest hourly average established during the most recent performance test demonstrating compliance with the CO limit.

ii. Where electing to install an oxygen analyzer or oxygen trim system, the following requirements shall be met:

(a) the systemshall maintain excess air at the desired level in the boiler by providing an automatic feedback signal to thecombustion air controller;

(b) the system shall be installed, certified, operated, and maintained in accordance Performance Specification 4, 4A, or 4B of 40 CFR Part 60, Appendix B; and

(c) the system shall be set and operated to maintain the oxygen level at the lowest hourly average oxygen concentrationmeasured during the most recent CO performance test demonstrating compliance, and as theoperating limit for oxygen,in accordance with Table 7 to Subpart DDDDD.

[40 CFR 63.7525(a)], [40 CFR 63.7515(i)], [40 CFR 63.7530(b)(4)], [40 CFR 63.7540(a)(8)], [40 CFR 63.7510(c)], and [40 CFR 63.8]

(2) Performance testing must be conducted on an annual basis in accordance with 40 CFR 63.7520 and completed no more than 13 months after the previous performance test. If after 2 consecutive years the emissions of a pollutant identified in Table 2 are at or below 75% of the emissions limit for that pollutant and there have been no changes in the operation of the boiler or air pollution control equipment that could increase emissions, performance testing may revert to every 3 years, or no more than 37 months after the previous test, for the pollutant. If the pollutant exceeds 75% of the applicable limit, testing shall revert back to annually, until the performance tests over another consecutive 2-year period have demonstrated the emissions to be at or below 75% of the emission limit identified in Table 2 as applicable to the boiler. For each existing boiler in which compliance is demonstrated through emissions averaging, performance testing shall remain annually. The average operating load must be recorded during each performance test.

Following an initial compliant performance test with the emission limits in Table 2, further performance tests are not required for a boiler designed to burn light liquid fuels and that only burns ultra-low sulfur liquid fuel, if the fuel is monitored and monthly records can demonstrate that only ultra-low sulfur liquid fuel is burned in the boiler.

Performance testing is not required for boilers designed to burn gas 1 fuels subcategory, where monthly records can document the fuel usage and that it meets the specifications of “gas 1 fuel”. Following the compliance test date, a performance test must be conducted for each new fuel not meeting the specifications of “gas 1 fuel” within 60 days of first burning it.

If an affected boiler and a non-affected unit(s) vent(s) to a common stack, the non-affected unit(s) must be shut down or vented to a different stack during the performance test, unless compliance can be demonstrated with the non-affected units venting to the stack during the performance demonstration.

The following test method(s) shall be employed, in accordance with Table 5 to Subpart DDDDD, to demonstrate compliance with the allowable mass emission rate(s)*:

Method 1, Appendix A-1, Part 60 to select the sampling ports locations and number of traverse points;

Method 2, 2F, or 2G, Appendix A-1 or A-2, Part 60 to determine the velocity and volumetric flow-rate of the stack gases;

Method 3A or 3B, Appendix A-2, Part 60, or ANSI/ASME PTC19.10 to determine the oxygen and/or carbon dioxide concentrations, excess air, and dry molecular weight of the stack gases;

Method 4, Appendix A-3, Part 60 to measure the moisture content of the stack gases;

Method 5 (positive pressure fabric filters shall use Method 5D)or 17 Appendix A-3 or A-6, Part 60 for PM emission concentration;

Method 7, 7A, 7C, 7D, or 7E, Appendix A, Part 60, as appropriate, if subject to OAC 3745-110, the NOx RACT;

Method 10 Appendix A-4, Part 60 to measure the CO emission concentration; or Performance Specification 4, 4A, or 4B, Appendix B of 40 CFR Part 60 for CO CEMS, and Performance Specification 3, Appendix B of 40 CFR Part 60 for O_2 CEMS and compliance with 40 CFR 63.7525(a) and 40 CFR 63.7540(a)(8)***;

Method 26 or 26A, Appendix A-8, Part 60 to measure HCl emissions concentrations;

Method 29 Appendix A-8, Part 60 for the TSM emission concentration;

Method 29, 30A, or 30B, Appendix A-8, Part 60; or Method 101A in Appendix B to Part 61; or ASTM Method D6784for the Hg emission concentration; or Performance Specification 12A, Appendix B of 40 CFR Part 60 for Hg CEMS and compliance with 40 CFR 63.7525(l) and 40 CFR 63.7540(a)(14)**;

Method 19 F-factor methodology, Appendix A-7 to Part 60 to convert PM, HCl, Hg, and TSM concentrations to pound per MMBtu emission rates; and

COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test, where compliance with the opacity limitation is met by using COMS data.

* Except for 30-day rolling averages based on CEMS (or sorbent trap systems), if measurement results for any pollutant are reported as below the analytical method's detection level, the method detection level shall be used as the measured emission level in calculating compliance (40 CFR 63.7520(f)).

** Per 40 CFR 63.7510(b), boilers using Hg CEMS are not required to have a performance test conducted for Hg and are not subject to the operating limit requirements for Hg, if the meet the requirements of 40 CFR 63.7525(l) and 40 CFR 63.7540(a)(14).

*** Per 40 CFR 63.7515(i), boilers using CO and O_2 CEMS are not required to have a performance test conducted for CO and are not subject to the oxygen concentration operating limit if the CEMS meet the requirements of 40 CFR 63.7525(a) and 40 CFR 63.7540(a)(8).

Sampling sites shall be located after the control device and prior to any releases to the atmosphere.

a. To determine compliance with the emission limitations from Subpart DDDDD, the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of Appendix A to part 60 shall be used to convert the measured PM or TSM, HCl, and Hg concentrations from the performance test, to pounds per million Btu heat input emission rates.

b. Each performance test shall consist of 3 separate runs as specified in 40 CFR 63.7(e)(3), using the applicable test methods in Table 5. Each test run shall last at least one hour and shall be conducted under the conditions specified in Tables 5 and 7, and must met the minimum sampling times and volumes specified in the last column of Table 2 for existing boilers.

c. During each performance test the maximum operating load shall be established by collecting the operating load or steam generation data every 15 minutes during the entire performance test. The average operating load shall be computed from the hourly averages using all of the 15-minute readings taken during each performance test. The maximum operating load shall be calculated as the average of the 3 test runs established during the most recent performance tests multiplied by 1.1 (110%).

d. The performance tests shall be conducted while the boiler is operating at representative operating load conditions, while burning the mixture(s) of fuel containing the highest content of Cl, Hg, and TSM if complying with the alternative standard for PM. These requirements could result in the need to conduct more than one performance test. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of the performance test. The permittee shall make available to the Ohio EPA, Division of Air Pollution Control, Central Office or the appropriate District Office or local air agency, upon request, any records that may be necessary to determine the conditions of the performance tests.

e. In order to establish the site-specific operating limits as required by 40 CFR 63.7530(b)(4) and Table 4 to Subpart DDDDD, the permittee shall collect and record the appropriate parameters for the control device, in accordance with Table 7 to the subpart, every 15 minutes during each performance test. The minimum operating parameters shall be established as follows:

i. When conducting a compliance demonstration for PM or TSM, or Hg and using a wet PM scrubber, the permittee shall collect and record the scrubber pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum scrubber pressure drop and minimum liquid flow rate shall be determined based on the lowest hourly average scrubber pressure drop and lowest hourly average liquid flow rate measured during the most recent performance tests demonstrating compliance; and shall be established as the minimum operating parameters for the wet scrubber.

ii. When conducting a compliance demonstration for PM or TSM, or Hg and using an electrostatic precipitator, the permittee shall collect and record the secondary voltage and secondary amperage for each ESP cell, calculate the total secondary electric power input data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum total secondary electric power shall be determined based on the lowest hourly average total secondary electric power input measured during the most recent performance tests demonstrating compliance; and shall be established as the minimum operating parameter for the ESP.

iii. When conducting a compliance demonstration for HCl and using a wet scrubber, the permittee shall collect and record the pH and liquid flow-rate data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum scrubber effluent pH and minimum scrubber liquid flow rate shall be determined based on the lowest hourly average sorbent liquid pH measured at the inlet to the wet scrubber and the lowest hourly liquid flow rate measured during the most recent performance tests demonstrating compliance with the HCl limit; and shall be established as the minimum operating parameters for the wet scrubber.

iv. When conducting a compliance demonstration for HCl and using a dry scrubber, the permittee shall collect and record the sorbent injection rate data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum sorbent injection rate shall be determined based on the lowest hourly average sorbent injection rate measured during the most recent performance tests demonstrating compliance with the HCl limit; and shall be established as the minimum operating parameters for the dry scrubber at the load fraction maintained during the performance test. When operating at lower loads, the minimum sorbent injection rate shall be determined by multiplying the sorbent injection rate operating limit established during the performance test by the operating load fraction of the boiler.

v. When conducting a compliance demonstration for Hg and using a dry scrubber with activated carbon injection, the permittee shall collect and record the activated carbon injection rate data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum activated carbon injection rate shall be determined based on the lowest hourly average activated carbon injection rate measured during the most recent performance tests demonstrating compliance with the Hg limit; and shall be established as the minimum operating parameters for the dry scrubber at the load fraction maintained during the performance test. When operating at lower loads, the minimum activated carbon injection rate shall be determined by multiplying the sorbent injection rate operating limit established during the performance test by the operating load fraction of the boiler.

vi. For boilers equipped with either a wet scrubber or dry sorbent injection system and subject to an HCl emission limit, and where choosing to establish an operating limit using SO_2 CEMS, the permittee shall establish the unit-specific maximum SO_2 operating limit by continuously monitoring SO_2 and calculating the hourly average SO_2 emission rate during the 3-run performance test for HCl. The maximum SO_2 operating limit shall be equal to the highest hourly average SO_2 concentration measured during the HCl performance test; and the CEMS data shall be calculated on a 30-ay rolling average basis to demonstrate compliance with this maximum concentration. On-going quality assurance shall be established by meeting the daily, quarterly, semiannual, and/or annual requirements of Part 75, Appendix B Sections 2.1 through 2.3; and linearity checks (required in Section 2.2) must be performed if the SO_2 CEMS has a span value of 30 ppm or less. The performance evaluation, using Performance Specification 2, shall be conducted no later than 180 days following the applicable compliance date, or by 7/29/16 for existing boilers, and within 180 days following startup of an existing boiler starting operations following the compliance date, where the boiler has not been in operation.

vii. Where demonstrating compliance with a CO limit, the minimum oxygen level operating limit shall be established as the lowest hourly average measured during the most recent performance test demonstrating compliance with the CO limit.

f. If using a wet scrubber and conducting separate performance tests for HCl and Hg emissions, one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits shall be established. The minimum scrubber effluent pH operating limit shall be established during the HCl performance test; and the minimum liquid flowrate operating limit shall be set at the higher of the minimum values established during the performance tests.

g. The permittee shall notify the appropriate Ohio EPA, Division of Air Pollution Control, District Office or local air agency in writing and at least 60 calendar days before a performance test is initially scheduled to begin, of plans to conduct a

performance test. If a performance evaluation of the COMS or CEMS is to be conducted at the same time, the Division of Air Pollution Control's Central Office shall also be notified. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the monitored 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 Division of Air Pollution Control's refusal to accept the results of the emission test(s).

h. Personnel from the appropriate Ohio EPA, Division of Air Pollution Control, District Office, local air agency, or Central Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of each emissions unit and the testing procedures provide a valid characterization of the emissions from each emissions unit and/or the performance of the baghouse and wet scrubber.

i. 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 shall be submitted to the appropriate Ohio EPA, Division of Air Pollution Control, District Office or local air agency within 30 days following completion of the test(s).

j. In the event the permittee is unable to conduct the performance test on the date specified in the notification requirement due to unforeseeable circumstances beyond control, the permittee shall notify the appropriate Ohio EPA, Division of Air Pollution Control, District Office or local air agency as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the permittee of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable federal, State, or local requirement.

k. The permittee shall maintain performance test results and any other data needed to determine emissions from each emissions unit for a minimum of 5 years after the testing is conducted or after the data is collected. These records shall be made available for inspection by the Director of the Ohio EPA or his/her representative, upon request.

[40 CFR 63.7520], [40 CFR 63.7500(a)], [40 CFR 63.7510], [40 CFR 63.7515], [40 CFR 63.7522(j)(2)]], [40 CFR 63.7525(l)(8) and (m)], [40 CFR 63.7530(a), (b)(4)(i), (iv) through (ix), (h), and (i)], [40 CFR 63.7545(d)], [40 CFR 63, Subpart DDDDD Tables 4, 5, 7, and 8; for the Table 2 limits], [40 CFR 63.6(h)(7)(iii)], [40 CFR 63.7], [40 CFR 63.10(d)], [OAC 3745-110], and [OAC 3745-15-04(A)]

(3) Each tune-up conducted to demonstrate compliance with the requirements of Part 63 Subpart DDDDD shall include the following elements:

a. inspection of the burner(s) (and requirement to clean or replace any necessary components);

b. inspection of the flame pattern and requirement to adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications if applicable;

c. inspect the air-to-fuel ratio control system to ensure it is correctly calibrated and functioning properly;

d. optimize total emissions of CO, in correlation with any applicable NOx standards, consistent with the manufacturer's specification if applicable;

e. measure the concentration of CO (in ppm, by volume) and oxygen (in volume percent) in the effluent gas stream, at the high-fire or typical operating load, and both before and after any adjustments (measurements can be make using a portable CO analyzer);

f. maintain records of the tune-up, inspection, and any corrective actions taken; and

g. where more than one type of fuel is used, records of the type and amount of each fuel type burned over the 12 months prior to the tune-up.

Inspections may be delayed until the next scheduled shutdown; and units that produce electricity for sale may delay the inspection until the first outage, but may not exceed 36 months from the previous inspection. The frequency of tune-ups shall be based on the frequency identified in Table 3 to the subpart. An initial tune-up must be completed for an existing unit no later than 1/31/16, unless the boiler is not in operation at that time, where a tune-up must be completed within 30 days after the re-start of the boiler.

[40 CFR 63.7500(c), (d), and (e)], [40 CFR 63.7510(e), (g) and (j)], [40 CFR 63.7515(d)], [40 CFR 63.7540(a)(10) through (13)], and [40 CFR Part 63, Subpart DDDDD, Table 3]

(4) The existing boilers, each vented to the same stack and participating in an emissions averaging group are identified as:B041, B042, and B043. These boilers will be burning the same fuel and/or are in the same subcategory, as identified in 40 CFR 63.7499 and as allowed in40 CFR 63.7522(b), and shall demonstrate compliance with the applicable emission limits for PM or TSM, HCl, and/or Hg in Table 2 through emissions averaging. The boilers identified in the averaging group shall meet the following requirements and their average emissions calculated as follows:

a. for each boiler in the averaging group, the emission rate achieved during the initial compliance test (for the HAP or HAP surrogate being averaged) shall not exceed the emission level that was achieved on 1/31/13; or the control technology employed during the initial compliance test shall not be less effective for the HAP/surrogate being averaged than the control technology employed on 1/31/13;

b. initial compliance shall be demonstrated using the maximum rated heat input capacity or maximum steam generation capacity of each boiler and the results of the initial performance test or fuel analyses;

c. the averaged emissions from the boilers shall not exceed 90% of the applicable emission limit(s) identified in Table 2 of Part 63 Subpart DDDDD and the averaged emissions shall be calculated as follows:

i. Where complying with the emission limits on a heat input basis, Equation 1a (from 40 CFR 63.7522(e)(1)) shall be used to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg. The weighted average emissions times the discount factor of 1.1, shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (\text{Er} \times \text{Hm}) \div \sum_{i=1}^{n} \text{Hm}$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per MMBtu of heat input.

Er = emission rate, as determined during the initial or subsequent compliance demonstrations for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit "i", in lbs of pollutant/MMBtu.

Hm = maximum rated heat input capacity of unit, "i", in MMBtu/hour.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

ii. Where complying with the emission limits on a steam generation output basis. Equation 1b (from 40 CFR 63.7522(e)(1)) shall be used to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg. The weighted average emissions times the discount factor of 1.1 shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (\text{Er} \times \text{So}) \div \sum_{i=1}^{n} \text{So}$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per MMBtu of steam output.

Er = emission rate, as determined during the initial compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing

results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit "i", in lbs of pollutant/MMBtu steam output. *

So = maximum steam output capacity of unit, "i", in MMBtu/hour.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iii. Where complying with the emission limits on an electrical generation output basis, Equation 1c (from 40 CFR 63.7522(e)(1)) shall be used to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg. The weighted average emissions times the discount factor of 1.1, shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per megawatt hour (lbs/MWh).

Er = emission rate, as determined during the initial compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM, derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit "i", in lbs of pollutant/MWh. *

Eo = maximum electric generating output capacity of unit, "i", in MWh.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iv. Where the maximum rated heat input capacity of one or more steam generating boilers cannot be determined, Equation 2 (from 40 CFR 63.7522(e)(2)) shall be used in place of Equation 1a, to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg based on heat input using a conversion factor to calculate the heat input per pounds of steam generated. The weighted average emissions times the discount factor of 1.1 shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Sm \times Cf_i) \div \sum_{i=1}^{n} Sm \times Cf_i$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per MMBtu of heat input.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM, derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for boiler "i", in lbs of pollutant/MMBtu of heat input.

Sm = maximum steam generation by boiler, "i", in lbs/hour.

Cf_i = conversion factor, calculated from the most recent compliance test, in million Btu of heat input per pounds of steam generated for unit, i.

n = number of existing boilers participating in the emissions averaging option.

1.1 = the required discount factor

d. Continuous compliance with the emission limits in Table 2 shall be demonstrated on a monthly basis, determined at the end of every month (12 times per year) using the heat input, steam generation output, or electric generation output of each boiler. The first monthly period begins on 1/31/16, and compliance is demonstrated if the monthly weighted average emissions for the existing subcategory of boilers are not more than 90% of the applicable emission limit in Table 2 to Part 63, Subpart DDDDD.

i. For each calendar month Equation 3a (from 40 CFR 63.7522(f)(1)) shall be used to calculate the monthly average-weighted emissions based on the heat input for the existing boilers participating in the emissions averaging option:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb$$

Where:

Ave Weighted Emissions = average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MMBtu of heat input, for the calendar month.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or**for

HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit, "i", in lbs of pollutant/MMBtu.

Hb = the actual heat input for the calendar month for unit, "i", in MMBtu.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

ii. For each calendar month Equation 3b (from 40 CFR 63.7522(f)(1)) shall be used to calculate the monthly average-weighted emissions based on steam generation output for the existing boilers participating in the emissions averaging option:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So$$

Where:

Ave Weighted Emissions = average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MMBtu of steam output, for the calendar month.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit, "i", in lbs of pollutant/MMBtu of steam output.

So = the steam output for the calendar month for unit, "i", in MMBtu.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iii. For each calendar month Equation 3c (from 40 CFR 63.7522(f)(1)) shall be used to calculate the monthly average-weighted emissions based on electrical generation output for the existing boilers participating in the emissions averaging option:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo$$

Where:

Ave Weighted Emissions = average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MWh for the calendar month.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit, "i", in lbs of pollutant/MWh.

Eo = the electric generating output for the calendar month for unit, "i", in MWh.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iv. For each calendar month where the heat input of one or more boilers cannot be determined, Equation 4 (from 40 CFR 63.7522(f)(2)) can be used in place of Equation 3a to calculate the monthly average-weighted emissions based on heat input using a conversion factor to calculate the heat input per pounds of steam generated:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Sa \times Cf_i) \div \sum_{i=1}^{n} (Sa \times Cf_i)$$

Where:

Ave Weighted Emissions = monthly, average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MMBtu of heat input.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for boiler, "i", in lbs of pollutant/MMBtu.

Sa = actual steam generation for the calendar month for boiler, "i", in pounds.

Cf_i = conversion factor, as calculated during the most recent compliance test, in MMBtu of heat input per pounds of steam generated for boiler, i.

n = number of existing boilers participating in the emissions averaging option.

1.1 = the required discount factor

* If taking credit for energy conservation measures from a boiler, the emission level for that boiler may be adjusted (E_{adj}) in accordance with 40 CFR 63.7533.

[40 CFR 63.7522]

(5) No later than 180 days before the date of an intended compliance demonstration based on emissions averaging, the permittee shall submit, upon request, an implementation plan for emission averaging to the appropriate district or local office of the Ohio EPA, Division of Air Pollution Control. The implementation plan shall include the following information for the boilers in each averaging group:

a. the identification of all existing boilers in the/each averaging group;

b. the subcategory of each averaging group as identified in 40 CFR 63.7499 or 63.7522(b);

c. which of the pollutant emissions will be averaged, PM, TSM, HCl, and/or Hg;

d. for each boiler in the averaging group, either the applicable HAP emission level or the control technology installed as of 1/31/13;

e. the date on which compliance using emission averaging is to commence;

f. the process parameter (heat input or steam generated) that will be monitored for each averaging group;

g. the specific control technology or pollution prevention measure to be used for each boiler in the averaging group and the date of its installation or application; and identification of each boiler that reduces or eliminates emissions from multiple boilers through pollution prevention measures;

h. the test plan for the measurement of PM or TSM, HCl, or Hg emissions in accordance with the requirements in 40 CFR 63.7520, i.e., to be included in the site-specific test plan;

i. the operating parameters to be monitored for each control system or device consistent with 63.7500 and Table 4 and a description of how the operating limits will be determined; and

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

[40 CFR 63.7522(g)(1) and (2)] and [40 CFR 63.63.7(c)]

(6) Following the compliance date of 1/31/16, the permittee using emission averaging for any subcategory of existing boilers, shall demonstrate compliance on a continuous basis by meeting the following requirements:

a. for each calendar month, the average-weighted emissions from the boilers in the averaging group, calculated in accordance with 40 CFR 63.7522(f) and (g), must not exceed 90% of the limit in Table 2 to the Subpart, for the averaging pollutant;

b. following the first 12 months of the compliance period and for each calendar month, the rolling, 12-month, average-weighted emissions for the boilers, calculated in accordance with 40 CFR 63.7522(f)(3) and this permit, shall not exceed 90% of the limit in Table 2 to the Subpart for the averaging pollutant;

c. for each existing boiler participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack or not vented to a common stack shared with non-affected units, the opacity shall not exceed 10% opacity as a 6-minute average; and

d. for each existing boiler participating in the emissions averaging option that is equipped with a wet scrubber, the 30-day rolling average parameter values shall be maintained at or above the operating limits established during the most recent performance test; and

e. for each existing boiler participating in the emissions averaging option that is venting to a common stack containing affected units from other subcategories, the appropriate operating limits for each unit shall be maintained as specified in Table 4 to Subpart DDDDD.

Any instance where the permittee fails to comply with the continuous monitoring requirements above is a deviation from the requirements of Subpart DDDDD.

[40 CFR 63.7541]

(7) Annual performance testing shall be conducted for each pollutant (PM or TSM, HCl, or Hg) for which compliance is demonstrated through emissions averaging. Each performance test must be completed no more than 13 months following the previous performance test for each existing boiler participating in emissions averaging within the subcategory.

[40 CFR 63.7515(a) and (c)]

(8) Upon receipt of the emission averaging implementation plan, the regulatory authority (appropriate district or local office of the Ohio EPA, Division of Air Pollution Control) shall review and approve or disapprove the plan according to the following criteria:

a. the content of the plan shall include all of the information specified in paragraph 40 CFR 63.7522(g)(2), as required above; and

b. the plan shall present sufficient information to determine that compliance will be achieved and maintained.

The emission averaging implementation plan shall not be approve if it contains any of the following scenarios:

a. it does not specify that emissions averaging is to be calculated for each pollutant individually (or for which pollutant(s) emission averaging is to be considered); or it proposes averaging between emissions of different pollutants;

b. it does not include all of the information specified in paragraph 40 CFR 63.7522(g)(2), as required above; or

c. the plan includes any emission source other than existing boilers; or

d. boilers from different subcategories are included in the same averaging group.

[40 CFR 63.7522(g)(3) and (4)]

(9) Where a group of 2 or more existing boilers in different subcategories vent through a common stack, the emission limit for the stack shall be calculated using Equation 6 from 40 CFR 63.7522(j)(1), where the summation of the emission limits from Table 2 for the individual units is dividing by the summation of the heat input from each unit sharing the stack:

$$En = \sum_{i=1}^{n} = (Eli \times Hi) / \sum_{i=1}^{n} Hi$$

Where:

En = HAP emission limit, in lbs/MMBtu, ppm, or nanograms/dscm (ng/dscm).

Eli = Appropriate emission limit from Table 2 to the subpart for unit i, in lb/MMBtu, ppm, or ng/dscm.

Hi = heat input form unit i, in MMBtu.

[40 CFR 63.7522(h) and (j)(1)]

(10) Where a group of 2 or more existing boilers in the same subcategories vent through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, the averaging group may be treated as a single existing unit for purposes of Subpart DDDDD and may comply with the requirements of the subpart as if the group were a single unit.

[40 CFR 63.7522(h) and (i)]

(11) If using Hg CEMS to demonstrate compliance, the CEMS shall be installed, certified, operated, and maintained in accordance with Performance Specifications 6 and 12A of Part 60, Appendix B and in accordance with the quality assurance procedure 6 of 40 CFR Part 60 Appendix F. If using a sorbent trap based integrated monitor, it shall be installed and operated in accordance with Performance Specification 12B of Part 60 Appendix B. The permittee must notify the Director 1 month before starting and 1 month before stopping the use of the Hg CEMS for compliance. Hg CEMS meeting the above and following requirements can be used for compliance with the Hg standard in place of a fuel analysis, annual performance test, and the operating limits specified in Table 4 to Subpart DDDDD:

a. The initial performance evaluation of the Hg CEMS for an existing boiler shall be completed by no later than 7/29/16 or no later than 180 days following the

notification to the Director that Hg CEMS will be used for compliance in place of performance testing or fuel analysis.

b. The permittee shall determine continuous compliance with the Hg standard using CEMS in accordance with to the following procedures:

i. for each day of operation, the hourly average Hg concentration data and stack gas volumetric flow rate data must be measured and recorded;

ii. the Hg CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive minute of operations (Ohio policy), with an average recorded for each 15-minute period;

iii. data from the CEMS (excluding that collected during calibration, quality assurance, or maintenance activities, out-of-control periods, and/or CEMS breakdown) shall be reduced to 1-hour averages, computed from the four 15-minute averages;

iv. the 30-day rolling arithmetic average emission rate (in lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7, substituting the Hg concentration for the pollutant concentrations normally used in Method 19;

v. the duration of the performance test must be the maximum of 30 boiler operating days or 720 hours;

vi. at least 2 15-minute data values must be collected during any hour when the CEMS calibration, quality assurance, or maintenance activities are being performed; and

vii. the 1-hour arithmetic averages shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day (or 10-day as applicable) rolling average emissions.

[40 CFR 63.7540(a)(14)] and [40 CFR 63.7525(l)]

(12) Emission Limitation:

Visible emissions from the exhaust stack serving this emissions unit shall not exceed 10% opacity as a daily block average for dry control systems not required to install and operate PM CEMS, PM CPMS, or a bag leak detection system.

<u>Applicable Compliance Method</u>:

The permittee shall conduct, or have conducted, a performance evaluation of the COMS and the results of the performance evaluation of the COMS shall be submitted to the appropriate offices as specified in 40 CFR 63.8(e)(5)(ii), and 40 CFR 63.10(e)(2)(ii), at least 15 days before the performance tests required under 40 CFR 63.7, 40 CFR 63.7510, and 40 CFR 63.7520. The COMS shall be maintained through daily calibration drift assessments, quarterly performance audits, and annual zero alignment audits

Performance evaluations shall be conducted in accordance with 40 CFR 63.8(e) and Performance Specification 1, of Appendix B to Part 60; and COMS data must be reduced in accordance with 40 CFR 63.8(g)(2). The permittee shall notify both the Central Office and the appropriate District Office or local air agency of the Ohio EPA, Division of Air Pollution Control, in writing, of the date of the COMS performance evaluation at least 30 days prior to the date the performance evaluation is scheduled to begin.

[40 CFR 63.7525(c)], [40 CFR 63.8], [40 CFR 63.8(e)(5)(ii)], and [40 CFR 63.10(e)(2)(ii)],and [40 CFR Part 63, Subpart DDDDD Tables 4 #4a or #6 and 8 #1]

As defined in 40 CFR 63.2, Subpart A of Part 63:

Performance audit is defined by the Subpart as: a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation is defined by the Subpart as: the conduction of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

[40 CFR 63.2]

(13) Emission Limitations:

Chlorine input (Cl entering boiler in lbs/MMBtu); and

Mercury input (Hg entering boiler in lbs/MMBtu); or

Total Selected Metals input (TSM entering boiler in lbs/MMBtu)

Applicable Compliance Method:

For each boiler burning more than one type of fuel, an initial fuel analyses shall be conducted for each type of fuel burned in the boiler in accordance with 40 CFR 63.7521 and Table 6 to the subpart. For solid and liquid fuels an initial fuel analysis must be conducted for Cl and Hg; and for gaseous fuels, not exempted in 40 CFR 63.7510(a)(2)(i) and (ii), an initial fuel analysis must be conducted for Hg. Composited fuel samples shall be prepared during the initial performance test; and solid fuel samples shall be prepared in accordance with 40 CFR 63.7521(c) and (d) or an equivalent method. The resultant fuel analyses shall establish maximum fuel pollutant input levels, in pounds per million Btu, of Cl and Hg, and TSM where opting to comply with the TSM standard. The maximum Cl, Hg, and/or TSM input shall be calculated in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM):

a. the maximum Cl fuel input (Cl_{input}) shall be established during the initial performance testing according to the following procedures from 40 CFR 63.7530(b)(1):

   i. the fuel type or fuel mixture that has the highest content of Cl shall be determined from the fuels that are burned or will be burned in the boiler;

ii. during the performance testing for HCl, the fraction of the total heat input for each fuel type burned (Q_i) shall be determined based on the fuel mixture that has the highest content of Cl, and the average Cl concentration shall be determined for each fuel type burned (C_i);

iii. a maximum Cl input level shall be established using Equation 7 from 40 CFR 63.7530(b)(1):

$$Cl_{input} = \sum_{i=1}^{n} (C_i)(Q_i)$$

Where:

Cl_{input} = maximum amount of Cl entering the boiler from the fuels burned in pounds per million Btu.

C_i = arithmetic average concentration of Cl in fuel type "i", analyzed according to 40 CFR 63.7521, in pounds per million Btu.

Q_i = fraction of total heat input from fuel type "i", based on the mixture that has the highest content of Cl. If multiple fuel types are not burned during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n = number of different fuel types burned in the boiler for the mixture having the highest content of Cl.

b. the maximum Hg fuel input level (Hg input) shall be established during the initial performance testing according to the following procedures from 40 CFR 63.7530(b)(2):

i. the fuel type or fuel mixture that has the highest content of Hg shall be determined from all the fuels that are burned or that will be burned in the boiler;

ii. during the performance testing for Hg, the fraction of the total heat input for each fuel type burned (Q_i) shall be determined based on the mixture that has the highest content of Hg, and the average Hg concentration shall be determined for each fuel type burned (HG_i);

iii. a maximum Hg input level shall be established using Equation 8 from 40 CFR 63.7530(b)(2):

$$Hg_{input} = \sum_{i=1}^{n} (HG_i)(Q_i)$$

Where:

Hg_{input} = maximum amount of Hg entering the boiler from the fuels burned, in pounds per million Btu.

HG_i = arithmetic average concentration of Hg in fuel type "i", analyzed according to 40 CFR 63.7521, in pounds per million Btu.

Q_i = fraction of total heat input from fuel type "i", based on the mixture that has the highest Hg content. If multiple fuel types are not burned during the performance testing, it is not necessary to determine the value of this term. Insert a value of ``1" for Q_i.

n = number of different fuel types burned in the boiler for the mixture having the highest content of Hg.

c. the maximum TSM fuel input level (TSM input) shall be established during the initial performance testing according to the following procedures from 40 CFR 63.7530(b)(3):

i. the fuel type or fuel mixture that has the highest content of TSM shall be determined from all the fuels that are burned or that will be burned in the boiler;

ii. during the performance testing for TSM, the fraction of the total heat input for each fuel type burned (Q_i) shall be determined based on the mixture that has the highest content of TSM, and the average TSM concentration shall be determined for each fuel type burned (TSM_i);

iii. a maximum TSM input level shall be established using Equation 9 from 40 CFR 63.7530(b)(3):

$$TSM_{input} = \sum_{i=1}^{n} (TSM_i)(Q_i)$$

Where:

TSM_{input} = maximum amount of TSM entering the boiler from the fuels burned, in pounds per million Btu.

TSM_i = arithmetic average concentration of TSM in fuel type "i", analyzed according to 40 CFR 63.7521, in pounds per million Btu.

Q_i = fraction of total heat input from fuel type "i", based on the mixture that has the highest TSM content. If multiple fuel types are not burned during the performance testing, it is not necessary to determine the value of this term. Insert a value of ``1" for Q_i.

n = number of different fuel types burned in the boiler for the mixture having the highest content of TSM.

[40 CFR 7510(a)(2)], [40 CFR 63.7530(b)(1),(2), and (3)], and [40 CFR Part 63, Subpart DDDDD Table 6]

(14) Emission Limitations:

2.2E-02 lb HCl/MMBtu of actual heat input; and

5.7E-06 lb Hg/MMBtu of actual heat input; or

5.3E-05 lb of TSM/MMBtu of actual heat input

Applicable Compliance Method:

For each pollutant that the permittee elects to demonstrate compliance through fuel analyses, monthly (or quarterly where meeting the requirements of 40 CFR 63.7515(e)) fuel analyses shall be conducted according to the procedures found in 40 CFR 63.7521, Table 6 to the subpart, and the site-specific fuel analyses plan. Monthly fuel samples shall be collected at a minimum of 14 calendar days from the sample collected for analyses in the previous month. Certified laboratory fuel analyses testing results (which can be submitted by the supplier), demonstrating that sufficient data has been collected to comply with 40 CFR 63.7530(c) for a 90th percentile confidence level of the subject pollutant concentration, shall be used to calculate the subject pollutant's emission rate as required per 40 CFR 63.7530(c).The maximum Cl, Hg, and TSM (if opting to comply with TSM) input shall be calculated (as above) in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM); and the HCl, Hg, and TSM emission rates shall be calculated in accordance with 40 CFR 63.7530(c) using Equations 15 (for 90th percentile confidence level pollutant concentration), 16 (for HCl), 17 (for Hg) and 18 (for TSM). The data, calculated to pounds of pollutant per MMBtu per Table 6, shall be reduced to 12-month rolling averages at the end of 12 months. The rolling 12-month average emissions, established through the monthly fuel analyses, shall be maintained at or below the applicable emission limit for HCl, Hg, or TSM as identified in Table 2 to Subpart DDDDD. A fuel analysis must be conducted before burning a new fuel not previously tested. The following procedures and calculations shall be used to demonstrate compliance with an applicable limit through fuel analysis:

a. if burning more than one fuel type, the permittee shall determine the fuel or fuel mixture that would result in the maximum emission rates of each/the pollutant (which could mean multiple fuels);

b. the 90th percentile confidence level, of the pollutant concentration of the composite samples of each fuel type analyzed, shall be determined using the one-sided z-statistic test described in Equation 15 from 40 CFR 63.7530(c)(2) as follows:

P_{90} = mean + (SD x t)

Where:

P_{90} = 90th percentile confidence level pollutant concentration, in pounds per million Btu

mean = arithmetic average of the pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521, in pounds per million Btu

SD = standard deviation of the pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521, in pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples.

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

c. in order to demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate for the boiler shall be calculated to be less than the applicable emission limit using Equation 16 from 40 CFR 63.7530(c)(3) as follows:

$$HCl = \sum_{i=1}^{n} [(C_{i90})(Q_i)(1.028)]$$

Where:

HCl = HCl emission rate from the boiler in pounds per million Btu.

C_{i90} = 90th percentile confidence level concentration of Cl in fuel type “i” in pounds per million Btu, as calculated according to Equation 15 above

Q_i = fraction of total heat input from fuel type “i” based on the fuel mixture that has the highest content of Cl. If only one fuel type is used, it is not necessary to determine the value of Q_i and it will equal ”1".

n = number of different fuel types burned in the boiler for the mixture having the highest content of Cl.

1.028 = molecular weight ratio of HCl to Cl

d. in order to demonstrate compliance with the applicable emission limit for Hg, the Hg emission rate for the boiler shall be calculated to be less than the applicable emission limit using Equation 17 from 40 CFR 63.7530(c)(4) as follows:

$$Hg = \sum_{i=1}^{n} [(Hg_{i90})(Q_i)]$$

Where:

Hg = Hg emission rate from the boiler in pounds per million Btu.

Hg_{i90} = 90th percentile confidence level concentration of Hg in fuel type “i” in pounds per million Btu, as calculated according to Equation 15 above.

Q_i = fraction of total heat input from fuel type "i", based on the fuel mixture that has the highest Hg content. If only one fuel type is used, it is not necessary to determine the value of Q_i and it will equal "1".

n = number of different fuel types burned in the boiler for the mixture having the highest content of Hg.

e. in order to demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate for the boiler shall be calculated to be less than the applicable emission limit using Equation 18 from 40 CFR 63.7530(c)(5) as follows:

$$TSM = \sum_{i=1}^{n} [(TSM_{i90})(Q_i)]$$

Where:

TSM = TSM emission rate from the boiler in pounds per million Btu.

TSM_{i90} = 90th percentile confidence level concentration of TSM in fuel type "i" in pounds per million Btu, as calculated according to Equation 15 above.

Q_i = fraction of total heat input from fuel type "i", based on the fuel mixture that has the highest TSM content. If only one fuel type is used, it is not necessary to determine the value of Q_i and it will equal "1".

n = number of different fuel types burned in the boiler for the mixture having the highest content of TSM.

[40 CFR 63.7505(c)], [40 CFR 63.7510(b)], [40 CFR 63.7515(e)], [40 CFR 63.7530(c)], [40 CFR 63.7505(c)], and [40 CFR Part 63, Subpart DDDDD Table 6]

(15) The permittee shall provide, or have provided, performance testing materials and conditions favorable for stack testing. Air pollution control systems shall be constructed such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and the stack or duct shall be free of cyclonic flow during performance testing. The following conditions shall be provided:

a. sampling ports adequate for the appropriate testing methods;

b. safe sampling platform(s);

c. safe access to sampling platform(s);

d. utilities for sampling and testing equipment; and

e. any other facilities that the Ohio EPA, Division of Air Pollution Control representative deems necessary for safe and adequate testing of each emissions unit.

[40 CFR 63.7(d)]

Fuel Sampling

(16) Fuel analyses samples collected in order to demonstrate compliance with 40 CFR Part 63, Subpart DDDDD shall meet the sampling procedures found in 40 CFR 63.7521 and the testing shall be conducted according to the methods and procedures found in Table 6 to the Subpart and the site-specific fuel monitoring plan, for Cl, Hg, or TSM (if choosing to comply with the alternative TSM standard). Monthly records of the types and amounts of each fuel burned in the boiler shall be maintained as required by 40 CFR 63.7540(a). If the fuel supplier is providing the fuel analyses, they must use the methods and procedures found in Table 6 to Part 63 Subpart DDDDD.

[40 CFR 63.7510(a)], [40 CFR 63.7521], [40 CFR 63.7530(c)], [40 CFR 63.7540(a)(2)], and [40 CFR Part 63, Subpart DDDDD Table 6 and 8]

(17) Fuel samples used to meet the fuel sampling analyses requirements shall be collected as follows:

a. When sampling during stack testing, three composite fuel samples shall be collected at one hour intervals during the testing period or fuel samples shall be obtained in accordance to the methods identified in Table 6 to the subpart. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month. An automated sampling mechanism shall provide representative composite fuel samples.

b. If sampling from a belt (or screw) feeder, the belt shall be stopped and a 6-inch wide sample shall be collected from the full cross-section of the belt, to obtain a minimum two pounds of sample. Both fines and coarse material shall be included in the full cross- section sample. The samples shall be retained in a clean plastic bag until preparations for testing.

c. If sampling from a fuel pile or truck, for each composite sample, a minimum of five sampling locations shall be selected, uniformly spaced over the surface of the pile. At each sampling site, the sample shall be withdrawn by digging, with a clean shovel, into the pile to a depth of approximately 18 inches. Both fines and coarse material shall be collected in the recovered samples. The samples shall be retained in a clean plastic bag until preparations for testing.

d. Each composite sample shall be prepared according to the procedures:

i. thoroughly mix and pour the entire composite sample over a clean plastic sheet;

ii. break larger pieces (e.g. larger than 3 inches) into smaller sizes;

iii. make a pie shape with the entire composite sample and subdivide it into four equal parts;

iv. separate one of the quarter samples as the first subset;

v. if this subset is too large for grinding, repeat the procedure in paragraph iii above, start over with the quarter sample and obtain a one-quarter subset from this sample;

vi. grind the sample in a mill; and

vii. make a pie shape with the entire composite sample and subdivide it into four equal parts to obtain a one-quarter sub-sample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

The concentration of pollutants in the fuel (Cl, Hg, and/or TSM) shall be determined in pounds per million Btu, for each composite sample for each fuel type and according to the procedures in Table 6 to this Subpart, for use in Equations 7, 8, and 9 of 40 CFR 63.7530(b).

[40 CFR 63.7521(c), (d), and (e)]

g) Miscellaneous Requirements

(1) None.

2. B058, Boiler #4 – Nebraska Boiler Co., Model # N2S-7-108, 155 million Btu/hr, Natural Gas-Fired Boiler equipped with Low-NO_x Burners and Flue-gas Recirculation

Operations, Property and/or Equipment Description:

Boiler #4 - Nebraska Boiler Co., Model # N2S-7-108, 155 million Btu/hr, Natural Gas-Fired Boiler equipped with Low-NO_x Burners and Flue-gas Recirculation.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T) (PTI P0110313 issued final on 11/01/2012)	Nitrogen oxides (NO_x) emissions shall not exceed 0.10 lb/MMBtu. Carbon monoxide (CO) emissions shall not exceed 0.083 lb/MMBtu.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	Particulate emissions (PE) shall not exceed 0.008 lb/MMBtu and 5.43 tons per year. Volatile organic compound (VOC) emissions shall not exceed 0.0054 lb/MMBtu and 3.67 tons per year. Sulfur dioxide (SO_2) emissions shall not exceed 0.0006 lb/MMBtu and 0.40 ton per year. See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)c.
e.	OAC rule 3745-17-07(A)	Visible PE from any stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-10(B)(1)	The PE limitation established pursuant to this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	40 CFR Part 60, Subpart Db (40 CFR 60.40b – 60.49b) [In accordance with 40 CFR 60.40b(a), this emissions unit is a steam generating unit for which construction, modification, or reconstruction commenced after June 19, 1984 and that has a maximum design heat input capacity of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr))]	See b)(2)c, b)(2)d and d)(2).
h.	40 CFR 60.1 – 60.19	See e)(3).
i.	40 CFR Part 63, Subpart DDDDD 40 CFR 63.7540(a)(10)(i)-(vi)	See c)(2).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B.265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by 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 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures for PE, VOC and SO_2 no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

Permit to Install and Operate P0110313 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-031-05(A)(3):

i. PE shall not exceed 0.008 lb/mmBtu and 5.43 tons per year.

ii. VOC emissions shall not exceed 0.0054 lb/MMBtu and 3.67 tons per year.

iii. SO_2 emissions shall not exceed 0.0006 lb/MMBtu and 0.40 ton per year.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, VOC, and SO_2 emissions from this air contaminant source since the uncontrolled potential to emit for PE, VOC, and SO_2 is less than 10 tons/yr.

d. The only fuel combusted in this emissions unit is natural gas. Thus, this emissions unit is not subject to the SO_2 and particulate matter (PM) emissions limitations in 40 CFR 60.42b and 60.43b or the emissions monitoring requirements in 40 CFR 60.47b and 60.48b.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110313]

(2) The permittee must conduct a tune-up of the boiler or process heater annually to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (a)(10)(vi) of 40 CFR 63.7540. This requirement does not apply to limited-use boilers and process heaters, as defined in 40 CFR 63.7575.

a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months);

b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly;

d. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available;

e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made); and

f. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section.

[40 CFR 63.7540(a)(10)(i) through (vi)]

d) Monitoring and/or Recordkeeping Requirements

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110313]

(2) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subpart Db, including the following sections:

Record Keeping 60.49b(d), (o)	Maintain records of the amount of each fuel combusted during each calendar month; only natural gas fuel combusted

[Authority for term: OAC rule 3745-77-07(C)(1), PTI P0110313 and 40 CFR Part 60, Subpart Db]

e) Reporting Requirements

(1) The permittee shall submit semiannual reports and such other notifications and reports to the appropriate Ohio EPA District office as are required pursuant to 40 CFR part 60, Subpart Db, including the following sections:

60.49b(a)(1)-(3)	Information required to be submitted in the construction notification.
60.49b(q)(1)	Requirement to submit performance test data.
60.49b(q)(3)	Requirement to submit performance test data for NOx along with hours of operation for the reporting period and hours of operation since the last performance test..
60.49b(w)	Required reporting periods under this subpart are each six month period. Reports due by the 30th day following the reporting period.

[Authority for terms: OAC rule 3745-77-07(C)(1), PTI P0110313 and 40 CFR Part 60, Subpart Db]

f) Testing Requirements

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

a. Emission Limitation:

NO_x emissions shall not exceed 0.10 lb/MMBtu.

Applicable Compliance Method:

The emissions limitation is based upon the emission factor from AP-42,"Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table1.4-2 (7/98). Compliance with the lb/MMBtu emission limitation may bedetermined by dividing the 100 lbs NO_x/million cubic feet emission factor by 1,020 Btu/scf.

If required, NO_x emissions shall be demonstrated in accordance with test Methods 1 through 4 and Method 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emission Limitation:

CO emissions shall not exceed 0.083 lb/MMBtu.

Applicable Compliance Method:

The emissions limitation is based upon the emission factor from AP-42,"Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table1.4-1 (7/98). Compliance with the lb/MMBtu emission limitation may bedetermined by converting the 84 lbs CO/10_6 scf emission factor into lbCO/MMBtu by dividing by 1,020 Btu/scf.

If required, the permittee shall demonstrate compliance with the lb/MMBtu emission limitation through emission tests performed in accordance with the methods and procedures specified in 40 CFRPart 60, Appendix A, Methods 1 through 4 and Method 10.

c. Emission Limitations:

PE shall not exceed 0.008 lb/MMBtu and 5.43 tons per year.

Applicable Compliance Methods:

The emission limitations were based upon the emission factor from AP-42,"Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table1.4-2 (7/98). Compliance with the lb/MMBtu emission limitation may

bedetermined by converting the 7.6 lbs PM/10_6 scf emission factor into lbPM/MMBtu by dividing by 1,020 Btu/scf.

If required, the permittee shall demonstrate compliance with the lb/MMBtu emission limitation through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.008 lb/MMBtu)by the maximum rated heat input capacity of the emissions unit (155 MMBtu/hr) and by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

d. Emission Limitations:

VOC emissions shall not exceed 0.0054 lb/MMBtu and 3.67 tons per year.

Applicable Compliance Method:

The emissions limitations were based upon the emission factor from AP-42,"Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table1.4-2 (7/98). Compliance with the lb/MMBtu emission limitation may bedetermined by converting the 5.5 lbs VOC/10_6 scf emission factor into lbVOC/MMBtuby dividing by 1,020 Btu/scf.

The tpy emission limitation was developed by multiplying the short-term allowable VOCemission limitation (0.0054 lb/MMBtu)by the maximum rated heat input capacity of the emissions unit (155 MMBtu/hr) and by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

e. Emission Limitations:

SO_2 emissions shall not exceed 0.0006 lb/MMBtu and 0.40 ton per year.

Applicable Compliance Method:

The emissions limitations were based upon the emission factor from AP-42,"Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table1.4-2 (7/98). Compliance with the lb/MMBtu emission limitation may bedetermined by converting the 0.6 lb SOx/10_6 scf emission factor into lbSOx/MMBtuby dividing by 1,020 Btu/scf.

The tpy emission limitation was developed by multiplying the short-term allowable SO_2emission limitation (0.0006 lb/MMBtu)by the maximum rated heat input capacity of the emissions unit (155 MMBtu/hr) and by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton.

Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

f. Emission Limitation:

Visible PE from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in40 CFR Part 60, Appendix A, Method 9.

[Authority for terms: OAC rule 3745-77-07(C)(1) and PTI P0110313]

g) Miscellaneous Requirements

(1) None.

3. Emissions Unit Group - Coal-fired Only Units: B041, B043

EU ID	Operations, Property and/or Equipment Description
B041	Boiler #3. Keeler 96.25 million Btu/hr coal fired boiler controlled by fabric filter baghouse.
B043	Boiler #2. Keeler 96.25 million Btu/hr coal fired boiler controlled by fabric filter baghouse.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule. The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to 40 CFR Part 63, Subpart DDDDD.
b.	OAC rule 3745-17-10(C)(1)	PE shall not exceed 0.15 lb per MMBtu of actual heat input. The PE limitation required by this applicable rule is less stringent than the PE limitation established pursuant to 40 CFR Part 63, Subpart DDDDD.
c.	OAC rule 3745-18-11(C)	Sulfur dioxide (SO_2) emissions shall not exceed 4.7 lbs per MMBtu of actual heat input.
d.	OAC rule 3745-110-03(B)	Nitrogen oxides (NO_x) emissions shall not exceed 0.30 lb per MMBtu of actual heat input while burning coal.
e.	40 CFR Part 63, Subpart DDDDD, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and	The emissions from the boilershall not exceed the following emission limitations,as identified in the most recent amendment to 40 CFR Part 63, Subpart

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Institutional Boilers and Process Heaters. (applicability - 40 CFR 63.7485, affected source - 40 CFR 63.7490)	DDDDD, and as identified in: **Table 2 for existing units:** 4.0E-02 lb of filterable particulate matter (PM)/MMBtu of heat input; or 5.3E-05 lb of Total Selected Metals (TSM)/MMBtu of heat input; and 2.2E-02 lb of hydrogen chloride (HCl)/MMBtu of heat input; and 5.7E-06 lb of mercury (Hg)/MMBtu of heat input; and 160 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, 3-run average; or, if using CEMS: 340 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, as a 30-day rolling average. **ORoutput limits (option)** 4.2E-02 lb of PM/MMBtu of steam output; or 5.6E-05 lb of TSM/ MMBtu of steam output; and 2.5E-02 lb of hydrogen chloride (HCl)/MMBtu of steam output; and 6.4E-06 lb of mercury (Hg)/MMBtu of steam output; and 0.14 lb CO/MMBtu of steam output, 3-run average. Boilers subject to emission standards in Tables 1, 2, 11, 12 and/or 13 shall also meet the work practice standards identified in Table 3 during startup and shutdown of the unit and the tune-up requirements, as applicable, in Table 3. Boilers not subject to emission standards shall meet the tune-up requirements identified in Table 3 as applicable to the unit. The permittee shall demonstrate

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		compliance with the limits published in the final amendments to Subpart DDDDD, as required by the subpart.
f.	40 CFR 63.7525(c); and 40 CFR Part 63, Subpart DDDDD; Table 4 #3 and #6and Table 8 #1	Where not required to install PM CPMS, PM CEMS*, or where not using a bag leak detection system, COMS* must be used to demonstrate compliance with the opacity standard and visible emissions shall not exceed 10% opacity as a daily block average.
g.	40 CFR Part 64 Compliance Assurance Monitoring	See b)(2)o, d)(1), d)(38) and e)(1).

* continuous monitoring system (CMS), continuous emissions monitoring system (CEMS), continuous opacity monitoring system (COMS), and continuous parameter monitoring system (CPMS).

(2) Additional Terms and Conditions

a. The quality of the coal burned in this emissions unit shall meet the following specifications on an as received wet basis:

i. a sulfur content which is sufficient to comply with the allowable SO_2 emission limitation of 4.7 pounds SO_2/MMBtu actual heat input.

Compliance with the above-mentioned specification shall be determined by use of the coal quality, sampling, and analysis records.

b. The permittee shall develop a site-specific continuous monitoring system (CMS) performance evaluation test plan and shall, upon request, submit a copy to the appropriate District Office or local air agency of the Ohio EPA Division of Air Pollution Control (DAPC) for evaluation and/or approval. A performance evaluation of each CMS shall be conducted in accordance with the site-specific performance evaluation test plan. The continuous monitoring system (CMS) shall be operated and certified in accordance with the appropriate performance specification under Appendix B to Part 60 and shall meet the requirements of 40 CFR 63.7525. The test evaluation of the CMS(s) shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The site-specific performance evaluation test plan shall require all CMS (systems required by rule) be maintained in continuous operation during process operations. The site-specific monitoring plan shall address the following requirements:

i. the design, data collection, quality assurance, and quality control elements outlined in 40 CFR 63.8(d);

ii. installation of the CEMS sampling probe at a location that is representative of the exhaust emissions (*e.g.*, on or downstream of the last control device);

iii. performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;

iv. performance evaluation procedures and acceptance criteria (*e.g.,* calibrations, accuracy audits, analytical drift);

v. ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c);

vi. ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d); and

vii. ongoing recordkeeping and reporting procedures in accordance with the requirements of 40 CFR 63.10(c) and (e).

The performance evaluation test plan shall also include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance (QA) program.

viii. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance.

ix. The external QA program shall include, at a minimum, provisions for systems audits and validation of instrument calibrations, data collection, sample logging, and documentation of quality control data and field maintenance activities and must also address the following requirements:

(a) each CMS (parameter monitor or sampling probe) shall be installed at a location that accurately measures the exhaust emissions representative of the emissions unit (e.g., on or downstream of the last control device) and accurately measures the process and/or the control device parameters;

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

(c) performance evaluation procedures and acceptance criteria, including calibration frequency, results, and records.

The permittee shall notify both the Central Office and the appropriate District or local office of the Ohio EPA DAPC at least 60 days before the performance evaluation is scheduled for a CEMS or COMS, or by a mutually agreed upon (by

DAPC Central Office) date. The permittee shall notify the appropriate District or local office of the Ohio EPA DAPC at least 60 days before the performance evaluation is scheduled for a CPMS. The DAPC may request a copy of the site-specific performance evaluation test plan and additional relevant information following the review of a site-specific performance evaluation test plan. All CMS shall be installed, operational, and the data verified, as specified in 40 CFR 63.7505(d), either prior to or in conjunction with conducting performance tests required under 40 CFR 63.7.

[40 CFR 63.7505(d)] and [40 CFR 63.8(d) and (e)]

c. The permittee shall develop and, if requested, submit a site-specific test plan to the Director (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) for evaluation and approval, at least 60 calendar days before the performance test is scheduled to take place and simultaneously with the notification of intention to conduct a performance test, unless the Director agrees upon a different date. The site-specific test plan shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The test plan shall include, at a minimum, the following elements: a test program summary; the test schedule; data quality objectives; and both an internal and external quality assurance (QA) program.

The internal quality assurance (QA) program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision (e.g.: sampling and analysis of replicate samples). The external QA program shall include, at a minimum, the following elements:

i. provisions for a test method performance audit during the performance test, in order to provide a measure of test data bias;

ii. provisions for systems audits, instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities; and

iii. provisions to provide appropriate notice (60 days), to the Director, of the performance test, performance audit, and systems audit, allowing the regulating agency the opportunity to arrange for their own on-site evaluation.

The performance audits shall consist of blind audit samples, provided by an accredited audit sample provider, which shall be taken and analyzed during each performance test. The Director may request additional relevant information following the receipt and review of the site-specific test plan.

[40 CFR 63.7(c)]

d. If not required to install CPMS (or CEMS) for PM in accordance with 40 CFR 63.7505(d)and choosing to use a bag leak detections system to demonstrate compliance, the permittee shall develop (and submit upon request) a site-specific

monitoring plan for the bag leak detection system. The site-specific monitoring plan shall address the following requirements:

i. the location(s) where the bag leak detection sensor(s) are to be installed, i.e., in a position(s) that is representative of the relative or absolute PM loadings from each exhaust stack, roof vent, or compartment of the fabric filter;

ii. provisions for performance evaluations of the bag leak detection system, to be conducted in accordance with the site-specific monitoring plan and the guidance provided in U.S. EPA's document number "EPA-454/R-98-015";

iii. provisions requiring the bag leak detection system to be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less;

iv. provisions requiring the bag leak detection system to be equipped with a device to continuously record the output signal from the sensor;

v. provisions requiring the bag leak detection system to be equipped with a system that will alert plant operating personnel when an increase in relative PM emissions are detected over a preset level (alert set point);

vi. provisions requiring the system alert to be placed in a location where it can be easily heard or seen by plant operating personnel and it may be shared among detectors;

vii. identification of the corrective action(s) to be initiated within 1 hour of a system alert and provisions requiring repairs, replacements, and/or adjustments to be completed as soon as practical; and

viii. provisions requiring the fabric filter system to be operated and maintained so that the periods that would cause an alert are no more than 5% of the operating time during any 6-month period.

[40 CFR 63.7525(j)], [40 CFR 63.7530(b)(4)], [40 CFR 63.7540(a)(7)], and [Subpart DDDDD Tables 4 #3b and 8 #3]

e. The permittee shall develop a site-specific fuel monitoring plan for each fuel burned in boilers that burn more than a single type of fuel; or for each fuel that the facility chooses to demonstrate compliance through fuel analyses. A fuel analyses is not require for fuels used only for startup and shutdown or for transient flame stability, natural gas, refinery gas, or fuels exempted in 40 CFR 63.7510(a)(2)(i) or (ii) or 40 CFR 63.7521(f)(1) through (4). For solid and liquid fuels, fuel analyses must be conducted for Cl and Hg, and TSM if opting to comply with the TSM alternative standard; and for gaseous fuels, other than natural gas, refinery gas, or exempted fuels, a fuel analysis must be conducted for Hg. Fuel analyses shall be conducted in accordance with the procedures identified in 40 CFR 63.7521 and Table 6 to Subpart DDDDD. A fuel gas system

that consists of multiple gaseous fuels collected and mixed is considered a single fuel type; and sampling and analysis is only required for the gas mix that will feed the boiler. The site-specific fuel analysis plan shall include the following information:

i. the identification of all fuel types anticipated to be burned in each boiler;

ii. for each anticipated fuel type, a statement as to whether the fuel analyses will be conducted by the permittee or by the fuel supplier;

iii. for each anticipated fuel type, the specific procedures to be used for collecting and preparing the composite samples if the procedures are different from those described in 40 CFR 63.7521(c) and (d) and/or Table 6 to the subpart;

iv. for each anticipated fuel type, the analytical methods from Table 6 to the subpart that will be used for the measurement of chlorine (Cl), mercury (Hg), and/or total selected metals (TSM) and the minimum expected detection levels;

v. if requesting the use of an alternative analytical method other than those required by Table 6 from Subpart DDDDD to Part 63, a detailed description of the methods and procedures that are proposed to be used, along with the written approval of the Administrator (U.S. EPA Region V) and a copy of the site-specific monitoring plan that was approved; and

vi. for each anticipated fuel type, identification of the location where fuel samples will be collected, that most accurately represents the fuel type and prior to mixing with other dissimilar fuel types.

If 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 of the Subpart.

[40 CFR 63.7521(a), (b), and (g)] and [40 CFR 63.7510(a)(2) and (b)]

f. Any reference to the “Director” in this permit shall take the meaning of the applicable District Office or local air agency of the Division of Air Pollution Control (DAPC), unless otherwise specified in the terms. Unless other arrangements have been approved by the Director, notification of the initial certification and performance evaluations of a continuous monitoring system (CMS), scheduled performance testing, and all required reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

g. Except for existing units demonstrating compliance through emissions averaging (40 CFR 63.7522), each existing boiler subject to Part 63 Subpart DDDDD shall meet each applicable emission limit in Table 2; and all existing boilers shall meet the work practice standards identified in Table 3 and each applicable operating limit for the control device(s) identified in Table 4, by the compliance date of 1/31/16.

[40 CFR 63.7500(a)(1) and (2)] and [40 CFR 63.7495]

h. An existing boiler located at a major source of HAP shall demonstrate initial compliance with the emission limits in Table 2 of Part 63 Subpart DDDDD no later than 7/29/16 or no later than 180 days after re-start of a boiler that was not operated following the compliance date (1/31/16) or that has not operated for over a year following the last compliance demonstration.

[40 CFR 63.7510(e) and (j)], [40 CFR 63.7515(g)], [40 CFR 63.7495(b)], and [40 CFR 63.7(a)(2)]

i. For each existing boiler a one-time energy assessment must be performed by a qualified energy assessor no later than 1/31/16. The one-time energy assessment for existing units must include the following:

i. a visual inspection of the boiler system;

ii. an evaluation of operating characteristics of the boiler systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;

iii. an inventory of major energy use systems consuming energy from affected boilers, which are under the control of the boiler operator;

iv. a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;

v. a review of the facility's energy management practices and recommendations for improvements consistent with the definition of energy management practices, if identified;

vi. a list of cost-effective energy conservation measures that are within the permittee's control;

vii. a list of the energy savings potential of the energy conservation measures identified; and

viii. a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping these investments.

[40 CFR 63.7510(e) and (j)] and [Part 63, Subpart DDDDD, Table 3 #4]

j. Following the initial compliance date, tune-ups must be conducted for each boiler within the applicable annual, biennial, or 5-year schedule as specified in 40 CFR 63.7500(c), (d), and (e), 40 CFR 63.7540(a)(10) through (13), and Table 3 to the subpart. An initial tune-up must be completed for an existing boiler no later than 1/31/16; unless the boiler in not in operation at this time, where a tune-up must be completed within 30 days after the re-start of the boiler.

[40 CFR 63.7500(c), (d), and (e)], [40 CFR 63.7510(e), (g) and (j)], [40 CFR 63.7515(d) and (g)], [40 CFR 63.7540(a)(10) through (13)], and [40 CFR Part 63, Subpart DDDDD, Table 3]

k. The emissions limits, work practice standards, and operating limits of the NESHAP apply at all times of boiler operation, except during periods of startup and shutdown during which the requirements of Table 3 #5 (startup) and #6 (shutdown) of Part 63, Subpart DDDDD apply. Compliance with the emissions limits is demonstrated through: performance stack testing; fuel analyses; and/or continuous monitoring using continuous monitoring systems (CMS), including continuous emission monitoring systems (CEMS), continuous opacity monitoring systems (COMS), continuous parameter monitoring systems (CPMS), and PM continuous parameter monitoring systems (PM CPMS).

[40 CFR 63.7505(a) and (c)], [40 CFR 63.7500(f)], and [40 CFR 63.7540(d)]

l. Following the initial compliance demonstration, compliance with the emission standards for HCl and Hg, or TSM where opting to comply with the standard for TSM instead of PM, may be demonstrated using fuel analysis (instead of a performance test) if the emission rate, calculated in accordance with 40 CFR 63.7530(c), is less than the applicable limit identified in Table 2. Fuel analyses shall be conducted in accordance with 40 CFR 63.7521 and Table 6 to Subpart DDDDD of Part 63. For gaseous fuels, fuel analysis cannot be used for compliance with the HCl or TSM standards.

[40 CFR 63.7505(c)] and [40 CFR Part 63, Subpart DDDDD Table 6]

m. Continuous compliance with each emission limits in Table 2, work practice standards in Table 3, and operating limits in Table 4 of the subpart shall be demonstrated in accordance with the methods specified in 40 CFR 63.7540(a) and Table 8 to Subpart DDDDD of Part 63. Operating above the established maximum or below the established minimum operating limit(s) shall constitute a deviation of the operating limits identified in Table 4 of the subpart.

[40 CFR 63.7540(a)(1)] and [40 CFR Part 63, Subpart DDDDD Tables 4 and 8]

n. The permittee shall meet the applicable requirements of the General Provision in Part 63 Subpart A as identified in Table 10 to the subpart.

[40 CFR Part 63, Subpart DDDDD Table 10]

o. This emissions unit is a pollutant specific emissions unit for PM according to 40 CFR Part 64 and has developed a CAM plan.

Pursuant to 40 CFR Part 64, the permittee has submitted and the Ohio EPA has approved a CAM plan for emissions units B041 and B043. The permittee shall comply with the provisions of the CAM plan during any operation of the aforementioned emissions unit.

[40 CFR Part 64]

c) Operational Restrictions

(1) The coal burned in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of SO_2 per MMBtu of heat content, complies with the allowable SO_2 emission limitation contained in this permit.

[Authority for term: OAC rule 3745-18-04(D) and 3745-77-07(A)(1)]

(2) For each boiler controlled by a baghouse equipped with a bag leak detection system, the bag leak detections system shall be installed, operated, and maintained in accordance with 40 CFR 63.7525(j); and the fabric filter system shall be operated and maintained so that the periods that would cause an alert are no more than 5% of the operating time during any 6-month period. Corrective action(s) must be initiated within 1 hour of a system alert and repairs, replacements, and/or adjustments must be completed as soon as practical.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(j)], [40 CFR 63.7540(a)(7)], and [Subpart DDDDD Tables 4 #3b and 8 #3]

(3) For each boiler controlled by a particulate wet scrubber, the permittee shall maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one hour average pressure drop and liquid flow rate measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance with the PM emission limitation and in accordance with 40 CFR 63.7530(b)(4). The monitoring systems shall meet the requirements of 40 CFR 63.7525(d), (e), and (f).

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d), (e), and (f)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #1, 7 #1a, and 8 #4]

(4) For each boiler controlled by a wet acid gas (HCl) scrubber, the permittee shall maintain the 30-day rolling average effluent pH, the 30-day rolling average liquid flow rate, and the 30-day rolling average pressure drop at or above the lowest one hour average pH, liquid flow rate, and pressure drop measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance with the HCl emission limitation and in accordance with 40 CFR 63.7530(b)(4)(i). The monitoring systems shall meet the requirements of 40 CFR 63.7525(d), (e), (f), and (g).

[40 CFR Part 63, Su[40 CFR 63.7530(b)(4)(i)], [40 CFR 63.7525(d), (e), (f), and bpart DDDDD Tables 4 #2, 7 #2a, and 8 #4 & #5]

(5) For each boiler controlled by an electrostatic precipitator (ESP) and wet scrubber (and not required to install/operate PM CPMS or COMS), the permittee shall maintain the 30-day rolling average total secondary electric power input (secondary voltage and secondary amperage) of the ESP at or above the lowest hourly average total secondary electric power measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7530(b)(4). The monitoring systems shall meet the requirements of 40 CFR 63.7525(d) and (h).

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (h)], [40 CFR Part 63, Subpart DDDDD Tables 4 #4b 7 #1b, and 8 #7]

(6) Each boiler equipped with a dry control system and not required or electing to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, shall be installed with a COMS. COMS data must be reduced in accordance with 40 CFR 63.8(g)(2) and the stack opacity must be maintained at less than or equal to 10% as a daily block average. Each COMS shall be installed, certified, operated, and maintained in accordance with Performance Specification 1, in Part 60 Appendix B, 40 CFR 63.8, 40 CFR 63.7525(c), and the site-specific monitoring plan.

[40 CFR 63.7525(c)], [40 CFR 63.8], [40 CFR Part 63, Subpart DDDDD Tables 4 #4a or #6 and 8 #1]

(7) For each boiler controlled by a dry scrubber, the permittee shall maintain the 30-day rolling average sorbent injection rate at or above the sorbent injection rate at the load fraction multiplied by the lowest hourly average injection rate measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7530(b)(4). The monitoring systems shall meet the requirements of 40 CFR 63.7525(d) and (i).

[40 CFR Part 63, Subpart [40 CFR 63.7530(b)(4)], [40 CFR 63.7525(DDDDD Tables 4 #5, 7 #2b, and 8 #6]

(8) For each boiler controlled by a dry scrubber, the permittee shall maintain the 30-day rolling average activated carbon injection rate at or above the load fraction multiplied by the lowest hourly average injection rate measured according to Table 7 of the subpart, during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7530(b)(4). The monitoring systems shall meet the requirements of 40 CFR 63.7525(d) and (i).

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (i)-sorbent], and [40 CFR Part 63, Subpart DDDDD Tables 4 #5, 7 #2b and 8 #6]

(9) For each boiler controlled by either a wet scrubber or dry sorbent injection system, subject to an HCl emission limit, and electing to establish an operating limit based on using SO_2 CEMS, the permittee shall maintain the 30-day rolling average SO_2 emission rate at or below the highest hourly average SO_2 concentration measured during the most recent performance test demonstrating compliance with the HCl standard.

[40 CFR 63.7525(m)], [40 CFR 63.7530(b)(4) and (i)] and [40 CFR Part 63, Subpart DDDDD Tables 4 #10 and 8 #11]

(10) For boilers subject to a CO emission limit and the permittee is using the option to install an oxygen analyzer, the system shall be installed, calibrated, and maintained in accordance with the manufacturer's recommendations. The permittee shall maintain the 30-day rolling average oxygen concentration of the stack gas at or above the lowest hourly average O_2 concentration measured during each performance test demonstrating compliance with the CO limit, as specified in Table 8. The minimum O_2 level shall be set no lower than the minimum value established during the three performance tests.

[40 CFR 63.7525(a)], [40 CFR 63.7530(b)(4)], [40 CFR 63.7575], and [40 CFR Part 63, Subpart DDDDD Tables 4 #9, 7#4, and 8 #9]

(11) For boilers subject to a CO emission limit and the permittee is using the option to install an oxygen trim system, the monitoring system shall maintain excess air at the desired level by providing a feedback signal to the combustion air controller. The oxygen concentration of the stack gas must be maintained at or above the lowest hourly average O_2 concentration measured during the most recent performance test demonstrating compliance with the CO limit. The minimum O_2 level shall be set no lower than the minimum value established during the three performance tests.

[40 CFR 63.7525(a)], [40 CFR 63.7530(b)(4)], and [40 CFR 63.7575]

(12) Carbon monoxide CEMS and the O_2 analyzer shall be installed, certified, operated, and maintained in accordance with Performance Specification 4, 4A, or 4B of Part 60 Appendix B, the site-specific monitoring plan, 40 CFR 63.7525(a), and 40 CFR 63.8. The 30-day or 10-day (as applicable) rolling average CO concentration shall be maintained at or below the applicable CO CEMS-based standard identified in 2to Part 63 Subpart DDDDD.

[40 CFR 63.7525(a)]; [40 CFR 7540(a)(8)], [40 CFR 63.7510(c)]; [40 CFR 63.8]; and [40 CFR Part 63, Subpart DDDDD Table 8 #10]

(13) For each boilers where compliance was/is demonstrated through a performance test, the permittee shall maintain the operating load such that is does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test demonstrating compliance.

[40 CFR 63.7520(c)], [40 CFR Part 63, Subpart DDDDD Table 4 #8 and Table 8 #10]

(14) The permittee, demonstrating compliance through fuel analyses for HCl, Hg, or TSM, shall conduct monthly (or quarterly if meeting the requirements of 40 CFR 63.7515(e)) fuel analyses in accordance with 40 CFR 63.7521 and Table 6 to the subpart; and shall maintain the fuel type or fuel mixture such that the applicable emission rate(s), calculated according to 40 CFR 63.7530(c)(1), (2) and/or (3), are no more than or less than the applicable emission limits in Table 2 of the subpart. Following the first 12 months of compliance, the rolling 12-month average emissions of HCl, Hg, and/or TSM shall be maintained at or below the applicable emission limit(s).

[40 CFR 63.7505(c)], [40 CFR 63.7510(b)], [40 CFR 63.7515(e)], [40 CFR 63.7530(c)], [40 CFR 63.7540(a)(2) and (3)], [40 CFR Part 63, Subpart DDDDD Tables 4 #7, Table 6, and 8 #8]

(15) A tune-up and inspection of the limited-use boiler(s) must be completed every 5 years as specified in 40 CFR 63.7540(a)(10) and Table 3 #1 of Subpart DDDDD. Limited-use boilers are not subject to the requirements found in Tables 1 and 2, Tables 11 through 13, the annual tune-up requirement or energy assessment requirements in Table 3, or operating limits in Table 4 to Part 63 Subpart DDDDD. The inspection includes measuring the concentration of CO in the effluent gas stream in ppmv and oxygen in volume percent, at high fire or typical operating load and both before and after the tune-up; and maintaining a record/report of the results of the inspection and the fuel(s) burned

in the boiler during the year if capable of burning more than one type of fuel. For an existing boiler, an initial tune-up must be completed no later than 1/31/16.

[40 CFR 63.7500(c)], [40 CFR 63.7540(a)(10),(12), and (13)] [40 CFR 63.7515(d)], [40 CFR 63.7510(e)-existing and (g)-new], and [40 CFR Part 63, Subpart DDDDD Table 3 #1]

(16) Boilers without a continuous oxygen trim system and with a heat input capacity greater than 10 MMBtu/hr must have a tune-up and inspection completed annually (no more than 13 months after the previous tune-up and inspection) as specified in 40 CFR 63. 7540(a)(10) and Table 3 #3 of Subpart DDDDD. The inspection includes measuring the concentration of CO in the effluent gas stream in ppmv and oxygen in volume percent, at high fire or typical operating load and both before and after the tune-up; and maintaining a record/report of the results of the inspection and the fuel(s) burned in the boiler during the yearif capable of burning more than one type of fuel. For an existing boiler, an initial tune-up must be completed no later than 1/31/16.

[40 CFR 63.7540(a)(10) and (13)], [40 CFR 63.7515(d)], [40 CFR 63.7510(e)-existing and (g)-new], and [40 CFR Part 63, Subpart DDDDD Table 3 #3]

(17) Boilers with a continuous oxygen trim system that maintains an optimum air to fuel ratio must have a tune-up and inspection completed every 5 years (no more than 61 months after the previous tune-up and inspection) as specified in 40 CFR 63. 7540(a)(10) and Table 3 #1 of Subpart DDDDD. The inspection includes measuring the concentration of CO in the effluent gas stream in ppmv and oxygen in volume percent, at high fire or typical operating load and both before and after the tune-up; and maintaining a record/report of the results of the inspection and the fuel(s) burned in the boiler during the yearif capable of burning more than one type of fuel. For an existing boiler, an initial tune-up must be completed no later than 1/31/16.

[40 CFR 63.7540(a)(10) and (13)], [40 CFR 63.7515(d)], [40 CFR 63.7510(e)-existing and (g)-new], and [40 CFR Part 63, Subpart DDDDD Table 3 #1]

(18) A boiler, subject to the emissions standards in Table 2 of Subpart DDDDD to Part 63, must be operated to meet the work practice standards of Table 3 #5 during startups and Table 3 #6 during shutdowns.

[40 CFR 63.7530(h)] and [40 CRFR Part 63, Subpart DDDDD Table 3 #5 & #6]

(19) The boiler and associated air pollution control and monitoring equipment must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.

[40 CFR 63.7500(a)(3)]

(20) All continuous monitoring system (CMS) shall be installed, operational, and the data verified, as specified in 40 CFR 63.8 and Subpart DDDDD, either prior to or in conjunction with conducting performance tests under 40 CFR 63.7 and 40 CFR 63.7520. The permittee shall maintain and operate each CMS as follows:

a. The permittee shall maintain and operate each CMS in a manner consistent with safety and good air pollution control practices for minimizing emissions, as specified in 40 CFR 63.6(e)(1).

b. The permittee shall keep the necessary parts for routine repairs and maintenance of the CMS equipment readily available.

c. All continuous emissions monitoring system (CMS) must be installed at a location that accurately measures the exhaust emissions representative of the emissions unit (e.g., downstream of the last control device) and according to the procedures documented in the applicable performance specification; and any continuous parameter monitoring system (CPMS) shall be installed to accurately measure the process and/or the control device parameters.

d. Verification of the operational status of each CMS shall include the completion of the manufacturer's written specifications or the recommendations for installation, operation, and calibration of the system.

e. The read out, (the visual display or measured record of the CMS) or other indication of operation, from any CMS required for compliance with the emission standard, shall be readily accessible for operational control and visible for monitoring and recording by the operator of the equipment.

f. Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS shall be maintained in continuous operation.

g. All CMS for measuring emissions (other than opacity) shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive minute of operations (Ohio policy), with an average recorded for each 15-minute period. Data from the CEMS (excluding that collected during calibration, quality assurance, or maintenance activities, out-of-control periods, and/or CEMS breakdown) shall be reduced to 1-hour averages, computed from the four 15-minute averages.

h. All COMS shall 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.

[40 CFR 63.8(c)(1) through (4)] and [40 CFR 63.8(g)(2)]

d) Monitoring and/or Recordkeeping Requirements

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

Each continuous 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.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacitymonitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request. The permittee shall maintain records of the following data obtained by the continuous opacity monitoringsystem: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, andmagnitude of manual calibration adjustments.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60.13 and 40 CFR Part 60, Appendix B]]

(2) The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal and analyze the coal sample for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods to be used to determine the ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal; ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rules 3745-18-04(D)(3)(c) and 3745-77-07(C)(1)]

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

[Authority for term: OAC rules 3745-18-04(D) and 3745-77-07(C)(1)]

(4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable pressure drop across the baghouse has been established to be not less than 5.8 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on an hourlybasis. The monitoring equipment shall be installed, calibrated, operated, and maintained in

accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit,the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) To obtain an exemption pursuant to OAC rule 3745-17-07(A)(3)(a)(i) and/or (A)(3)(b)(i), from operating the fabric filter baghouse for periods of startup or shutdown, the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b) during periods of shutdown until the inlet temperature of the baghouse drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i). An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

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

[Authority for term: OAC rules 3745-17-07(A)(3) and 3745-77-07(C)(1)]

(7) For each boiler burning more than one type of fuel, an initial fuel analysis must be conducted for each type of fuel burned in the boiler in accordance with 40 CFR 63.7521 and Table 6 to Part 63 Subpart DDDDD. An initial fuel analysis shall be conducted in conjunction with the initial performance test.Fuel analyses are not required for fuels used for only startup, unit shutdown, and transient flame stability purposes; and fuel analyses are not required for boilers that burn a single type of fuel, or for natural gas, refinery gas, or other gas 1 fuels. An initial fuel analysis is only required for fuels burned in boilers subject to emission limits for Hg and HCl in Table 2to the subpart.For solid and liquid fuels an initial fuel analyses must be conducted for Cl and Hg; and for gaseous fuels, not exempted in 40 CFR 63.7510(a)(2)(i) and (ii), an initial fuel analysis must be conducted for Hg. The maximum Cl and Hg input shall be calculated in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM).

[40 CFR 63.7510(a)(2) and (b)] and [40 CFR 63.7530(a) and (b)]

(8) If demonstrating compliance with HCl, Hg, or TSM through fuel analyses, monthly fuel analyses must be conducted according to the procedures found in 40 CFR 63.7521 and Table 6 to this subpart and the site-specific fuel analyses plan. If each of 12 consecutive monthly fuel analyses demonstrates emissions to be 75% or less of the HCl, Hg, and/or TSM emission limit, the fuel analysis frequency may be conducted quarterly, instead of monthly, for the pollutant and fuel meeting this exception. With any fuel analysis showing 75% of the applicable emission limit(s) to be exceeded, fuel sampling and analyses will revert to monthly until another 12 consecutive months demonstrate the emissions to be 75% or less of the applicable limit. Each monthly fuel sample collected for analyses must be separated by at least 14 calendar days from the previous sample collected for analyses. The maximum Cl, Hg, and TSM (if opting to comply with TSM) input shall be calculated in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM); and the HCl, Hg, and TSM emission rates shall be calculated in accordance with 40 CFR 63.7530(c) using Equations 15 (for 90th percentile confidence level pollutant concentration), 16 (for HCl), 17 (for Hg) and 18 (for TSM).The data, calculated to pounds of pollutant per MMBtu per Table 6, shall be reduced to 12-

month rolling averages at the end of 12 months. The rolling 12-month average emissions, established through the monthly fuel analyses, shall be maintained at or below the applicable emission limit for HCl, Hg, or TSM as identified in Table 2 to Subpart DDDDD. A fuel analysis(es) must be conducted before burning a new fuel not previously tested.

[40 CFR 63.7505(c)], [40 CFR 63.7510(a)(2) and (b)], [40 CFR 63.7515(e)], [40 CFR 63.7521], [40 CFR 63.7530(b) and (c)], and [40 CFR Part 63, Subpart DDDDD Table 8 #8]

(9) Where demonstrating compliance with an opacity limit using a continuous opacity monitoring system (COMS), it shall be installed, operated, and certified according the procedures specified in 40 CFR 63.7525(c), 40 CFR 63.8, and Performance Specification 1 from Appendix B to 40 CFR Part 60. Performance evaluations of the COMS shall be conducted according to Performance Specification 1 and 40 CFR 63.8(e). The COMS must complete a minimum of 1 cycle of sampling and analyzing for each successive 10-second period and 1 cycle of data recording for each successive 6-minute period. The data must be reduced to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period, as specified in 40 CFR 63.8(g)(2), and the daily block average shall be calculated. The site-specific monitoring plan must include procedures and acceptance criteria for operating and maintaining each COMS, including at a minimum a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit. Records shall be maintained for all periods when the COMS is out of control (a deviation from the monitoring requirements), including any periods the COMS fails to pass a daily calibration drift assessment, quarterly performance audit, or annual zero alignment audit.

[40 CFR 63.7525(c)], [40 CFR 63.8], and [40 CFR Part 63, Subpart DDDDD Table 8 #1]

(10) For a boiler equipped with fabric filter control and demonstrating compliance using a bag leak detection system, it shall be installed, calibrated, and maintained in accordance with 40 CFR 63.7525(j) and operated so that the alarm does not sound more than 5% of the operating time during each 6-month period. Corrective action must be initiated within 1 hour of an alarm; and records must be maintained for the date, time, and duration of each alarm, the time corrective action was initiated and completed, the cause of the alarm and corrective actions taken. A record must be kept for the percent of the operating time during each 6-month period that the alarm sounds. Performance evaluations shall be conducted in accordance with the site-specific monitoring plan and shall be consistent with the guidance provided in EPA-454/R-98-015 (see 40 CFR 63.14).

[40 CFR 63.7525(j)], [40 CFR 63.7530(b)(4)], [40CFR 63.7540(a)(7)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #3 and 8 #3]

(11) For a boiler equipped with a wet PM scrubber, it shall be equipped with CPMS to measure the pressure drop and liquid flow rate. The CPMS shall complete a minimum of one cycle of sampling and analyzing for each successive 15-minute period, with a minimum of 4 successive cycles of operation for each valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average pressure drop and liquid flow rate for each operating day. Performance

evaluations shall be conducted at the time of each performance test and no less frequently than annually, with daily checks of the pressure drop for obstruction or pluggage.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d), (e), and (f)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #1 and 8 #4]

(12) For a boiler equipped with a wet acid gas (HCl) scrubber, it shall be equipped with CPMS to measure the effluent pH, liquid flow rate, and pressure drop. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average pH and liquid flow rate for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually for the pressure and flow monitors and quarterly for the pH monitor (including a 2-point calibration with buffer solutions); with daily checks of the pH and the pressure drop (for obstruction or pluggage).

[40 CFR 63.7530(b)(4)(i)], [40 CFR 63.7525(d), (e), (f), and (g)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #2 and 8 #5]

(13) For a boiler equipped with an electrostatic precipitator (ESP) and wet scrubber, it shall be equipped with aCPMS to measure the total secondary electric power input (voltage and current) to the precipitator collection plates. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average total secondary electric power input for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (h)], [40 CFR Part 63, Subpart DDDDD Table 4 #4]

(14) For a boiler equipped with a dry control electrostatic precipitator (ESP) and not required to install PM CPMS, the opacity shall be maintained at less than or equal to 10% as a daily block average and COMS shall be installed, certified, operated, and maintained meet the requirements of 40 CFR 63.7525(c) and 40 CFR 63.8.

[40 CFR Part 63, Subpart DDDDD Table 4 #4a and Table 8 #1]

(15) For a boiler equipped with a dry scrubber with sorbent injection, it shall be equipped with a CPMS to measure the sorbent injection rate. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average sorbent injection rate for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (i)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #5 and 8 #6]

(16) For a boiler equipped with a dry scrubber with activated carbon injection, it shall be equipped with a CPMS to measure the activated carbon injection rate. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period, with a minimum of 4 successive cycles of operation for one valid hour of data. Except for data recorded during monitoring malfunctions, quality assurance activities, monitor repairs, and out of control periods, all readings shall be used to calculate the 30-day rolling average carbon injection rate for each operating day. Performance evaluations shall be conducted at the time of each performance test and no less frequently than annually.

[40 CFR 63.7530(b)(4)], [40 CFR 63.7525(d) and (i)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #5 and 8 #6]

(17) For boilers subject to a CO emission limit and using the option to install an oxygen analyzer, the system shall monitor the oxygen in the boiler flue gas and it shall be installed, calibrated, and maintained in accordance with the manufacturer's recommendations.

[40 CFR 63.7525(a)], [40 CFR 63.7575], and [40 CFR Part 63, Subpart DDDDD Tables 4 #9 and 8 #9]

(18) For boilers subject to a CO emission limit and using the option to install an CO CEMS, the CEMS shall be install, certified, operated, and maintained in accordance with Performance Specification 4, 4A, or 4B of Part 60 Appendix B, 40 CFR 63.7525(a), and 40 CFR 63.8. The CO CEMS data shall be reduced as specified in 40 CFR 63(g)(2); and the 1-hour arithmetic averages, corrected to 3% O_2 on a dry basis, and in part per million (ppm) CO concentration, shall be used to calculate each daily average, which shall be used to calculate a 30-day or 10-day (as applicable) rolling average CO concentration of the stack gas. Carbon monoxide must be continuously monitored in accordance with 40 CFR 63.7525(a) and 40 CFR 63.7535 and the records of CO levels must be maintained in accordance with 40 CFR 63.7555(b). Records shall also be maintained for the results of CO CEMS performance audits and the date(s) and duration of periods when the CO CEMS is out of control, including the corrective actions necessary to return the CO CEMS to operation consistent with the site-specific monitoring plan for CEMS.

[40 CFR 63.7525(a)], [40 CFR 63.7510(c)], [40 CFR 63.7540(a)(8)], [40 CFR 63.8], and [40 CFR Part 63, Subpart DDDDD Table 8 #10]

(19) For boilers subject to a CO emission limit and using the option to install an oxygen trim system, the monitoring system shall maintain excess air at the desired level by providing a feedback signal to the combustion air controller. The permittee shall maintain the oxygen concentration of the stack gas at or above the lowest hourly average O_2 concentration measured during the most recent performance test (Method 10) demonstrating compliance with the CO limit.

[40 CFR 63.7525(a)], [40 CFR 63.7575], and [40 CFR Part 63, Subpart DDDDD Tables 4 #9 and 8 #9]

(20) For boilers equipped with either a wet scrubber or dry sorbent injection system and subject to an HCl emission limit, and where choosing to establish an operating limit based on SO_2 CEMS, the SO_2 CEMS shall be installed, certified, operated, and maintained in accordance with Performance Specification 2 and Part 75 of Title 40, excluding the application of "bias adjustment factors" and "substitute data values" allowed per Part 75. The SO_2 CEMS data shall be used to calculate each daily average, which shall be used to calculate a 30-day rolling average SO_2 concentration of the stack gas, which shall be maintained at or below the highest hourly average SO_2 concentration measured during the most recent compliant HCl performance test.

[40 CFR 63.7525(m)], [40 CFR 63.7530(i)], and [40 CFR Part 63, Subpart DDDDD Tables 4 #10 and 8 #11]

(21) The permittee shall collect the operating load data or steam generation data every 15 minutes, in order to monitor and maintain the operating load such that it does not exceed 110% of the highest hourly average operating load established during the most recent performance test demonstrating compliance and in accordance with 40 CFR 63.7520(c).

[40 CFR 63.7520(c)] [40 CFR Part 63, Subpart DDDDD Table 4 #8 and Table 8 #10]

(22) The permittee shall only burn fuel types and fuel mixtures that were used to demonstrate compliance with the applicable emissions limit and shall maintain monthly records of fuel usage in each boiler during each reporting period; and in order to demonstrate that all fuel types and mixtures of fuels burned would result in one of the following:

a. lower emissions of HCl, HG, and TSM than the applicable emission limit for each pollutant, if demonstrating compliance through fuel analysis; or

b. lower fuel input of Cl, Hg, and TSM than the maximum values calculated during the last performance test, if demonstrating compliance through performance testing.

[40 CFR 63.7540(a)(2)] and [40 CFR 63.7550(c)]

(23) In order to demonstrate continuous compliance with the requirements of the Part 63, Subpart DDDDD, the required monitoring and data collection systems must be operated at all times the boiler(s) is/are in operation, except for periods of monitoring system malfunction, out of control periods, and required monitoring system quality assurance and/or control activities, including calibration checks, required zero and span adjustments, and scheduled CMS maintenance, as defined in the site-specific monitoring plan. Monitoring system repairs in response to monitoring system malfunctions or out-of-control periods must be completed as expeditiously as practical.

[40 CFR 63.7535(b)]

(24) Each flow monitoring system used to demonstrate continuous compliance shall meet the following requirements:

a. the flow sensor and other associated equipment shall be installed in a position that provides a representative flow;

b. the flow sensor shall have a measurement sensitivity of no greater than 2% of the design flow rate;

c. the effects of swirling flow or abnormal velocity distributions, due to upstream and downstream disturbances, shall be minimized consistent with good engineering practices; and

d. a performance evaluation of each flow monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test, but no less frequently than annually.

[40 CFR 63.7525(e)]

(25) Each pressure monitoring system used to demonstrate continuous compliance shall meet the following requirements:

a. the pressure sensor shall be installed in a position that provides a representative measurement of pressure;

b. pulsating pressure, vibration, and internal and external corrosion shall be minimized or eliminated consistent with good engineering practices;

c. the pressure sensor shall have a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1% of the pressure monitoring system operating range, whichever is less;

d. the pressure sensor shall be checked at least once each operating day to ensure there is no obstructions or pluggage;

e. a performance evaluation of each pressure monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test but no less frequently than annually; and

f. if the measured pressure exceeds the manufacturer's specified maximum operating pressure range, a performance evaluation shall be conducted in accordance with the monitoring plan and a new pressure sensor shall be installed where required.

[40 CFR 63.7525(f)]

(26) Each pH monitoring system used to demonstrate continuous compliance shall meet the following requirements.

a. the pH sensor shall be installed in a position that provides a representative measurement of scrubber effluent pH;

b. the sample shall be properly mixed and representative of the fluid to be measured;

c. a performance evaluation of the pH monitoring system shall be conducted, in accordance with the monitoring plan, and at least once each process operating day; and

d. performance evaluations, including a 2-point calibration with buffer solutions, shall be conducted at the time of each performance test and no less frequently than quarterly.

[40 CFR 63.7525(g)]

(27) Each secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber shall meet the following requirements:

a. sensors shall be installed to measure secondary voltage and current to the precipitator collection plates; and

b. a performance evaluation of the electric power monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test but no less frequently than annually.

[40 CFR 63.7525(h)]

(28) Where using a monitoring system to measure sorbent injection rate (e.g., weight belt, weigh hopper, or hopper flow measurement device) to demonstrate compliance, the system shall meet the following requirements:

a. the sorbent injection rate measurement system shall provide a representative measurement of the total sorbent injection rate; and

b. a performance evaluation of the sorbent injection monitoring system shall be conducted, in accordance with the monitoring plan, at the time of each performance test but no less frequently than annually.

[40 CFR 63.7525(i)]

(29) Where demonstrating compliance with the Hg standard using a CMS, a Hg CEMS may be installed, certified, maintained, and operated in accordance with Performance Specification 12A of Part 60 Appendix B; or a sorbent trap based integrated monitor may be installed and operated in accordance with Performance Specification 12B of Part 60 Appendix B. The CMS outlet data shall be calculated to pounds per MMBtu using the equations in Method 19 of 40 CFR Part 60, Appendix A-7.

[40 CFR 63.7525(l)] and [40 CFR 63.7540(a)]

(30) The permittee shall maintain records of the following information where a fuel analysis is required or used to demonstrate compliance:

a. monthly records of the fuel(s) burned in each boiler, including the type of fuel, the amount burned, and the fraction of total heat input from each fuel type burned;

b. a copy of the calculations and supporting documentation from the initial fuel analysis for the maximum amount of Cl entering the boiler through the fuel(s) burned in the unit, using Equation 7 of 40 CFR 63.7530(b)(1); and demonstrating compliance with the HCl emission standard through fuel analyses, a copy of all calculations completed to determine the 90th percentile confidence level pollutant concentration, in pounds per million Btu, using Equations 15 and 16 of 40 CFR 63.7530(c); and

c. a copy of the calculations and supporting documentation from the initial fuel analysis for the maximum amount of Hg entering the boiler through the fuel(s) burned in the unit, using Equation 8 of 40 CFR 63.7530(b)(2); and if demonstrating compliance with the Hg emission standard through fuel analyses, a copy of all calculations completed to determine the 90th percentile confidence level pollutant concentration, in pounds per million Btu, using Equations 15 and 17 of 40 CFR 63.7530(c);

d. if demonstrating compliance with the TSM emission standard through fuel analyses, a copy of the calculations and supporting documentation of the maximum amount of TSM entering the boiler through the solid and/or liquid fuel(s) burned in the unit, using Equation 9 of 40 CFR 63.7530(b)(3); and if demonstrating compliance with the TSM emission standard through fuel analyses, a copy of all calculations completed to determine the 90th percentile confidence level pollutant concentration, in pounds per million Btu, using Equations 15 and 18 of 40 CFR 63.7530(c);

e. the monthly concentrations calculated to pounds of pollutant per MMBtu, and

f. following the first 12 months of compliance, the 12-month rolling average emissions for each pollutant for which compliance is being demonstrated through fuel analyses.

Supporting documentation shall include results of any fuel analyses and the basis for the estimates of the maximum Cl, Hg, and/or TSM input and the HCl, Hg, and/or TSM emission rates. The results from one fuel analysis can be used for all the boilers provided they are all burning the same fuel; however, the pollutant input and/or emission rates shall be calculated for each boiler.

[40 CFR 63.7555(d)(4), (5), and (9)], and [40 CFR 63, Subpart DDDDD Table 8 #8]

(31) If burning a new fuel and compliance with an HCl or TSM emission limit for solid or liquid fuels, or the Hg emission limit was/were demonstrated through fuel analyses, the maximum Cl, Hg, and/or TSM input must be recalculated using Equations 7, 8, and/or 9 of 40 CFR 63.7530(b); and the emission rate must be recalculated using Equations 15 and 16, 17, and/or 18 of 40 CFR 63.7530(c). The recalculated HCl, Hg, and/or TSM emission rate must be less than the applicable emission limit(s). The Cl, Hg, and/or TSM concentration for any new fuel type must be determined in pounds per million Btu, based on supplier data or the facility's fuel analyses, and in accordance with the site-specific fuel analyses plan. The permittee shall determine the fuel(s) or mixture of fuels that will have the highest content of Cl, Hg, or TSM, which may include more than one type of fuel for analyses.

[40 CFR 63.7540(a)(3), (5),and (17)]

(32) If compliance with the HCl or Hg emission limit was demonstrated through performance testing and a new fuel is to be used, the maximum Cl, Hg, and TSM (if complying with TSM) input must be recalculated using Equations 7, 8, and/or 9 of 40 CFR 63.7530. If the results of recalculating the maximum Cl or Hg input are found to be greater than the maximum established during the previous performance test, a new performance test must be conducted within 60 days of burning the new fuel and new operating limits must be established.

[40 CFR 63.7540(a)(4), (6), and (16)]

(33) If complying with the alternative equivalent output-based emission limits, instead of the heat input-based limits in Table 2 to the subpart, the permittee may take credit for implementing energy conservation measures identified in the energy assessment by establishing a benchmark from which emission efficiency credits may be generated. Efficiency credits can be generated if the energy conservation measures were implemented after 1/1/08 and sufficient information is available to determine the appropriate value of the credits. Shutdown boilers cannot be used to generate efficiency credits unless the facility can provide documentation linking the permanent shutdown to energy conservation measures identified in the energy assessment. The requirements for documenting the established benchmark and reductions from energy conservation are identified in 40 CFR 63.7533. The demonstration for efficiency credits must follow the requirements of 40 CFR 63.7533 and must be approved by the Director.

[40 CFR 63.7533]

(34) If electing to demonstrate that a gaseous fuel, other than natural gas or refinery gas, meets the specifications of an "other gas 1 fuel" and the gas constituents could vary above the specifications identified for an "other gas 1 fuel" (40 µg Hg/m^3), monthly fuel specification analyses for Hg is required and the gaseous fuel must be included in a/the site-specific fuel analyses plan. A single fuel sample for each such gaseous fuel type must be obtained in accordance with the sampling procedures listed in Table 6 to the subpart. The concentration of Hg in the fuel must be recorded in units of micrograms per cubic meter, on a dry basis, for each sample of "other gas 1 fuel" and the sampling and testing methods must be conducted in accordance with the procedures in Table 6 to the subpart. The sampling frequency for each "other gas 1 fuel" shall be conducted as follows:

a. if the initial fuel analysis demonstrates that Hg constituents in the gaseous fuel are measured to be greater than 30 micrograms/m^3 of Hg, monthly sampling and analyses shall be conducted;

b. if 12 consecutive monthly fuel analyses demonstrates the Hg constituents to be less than or equal to 30 micrograms/m^3 of Hg, semiannual sampling and analysis shall be conducted;

c. if any semi-annual fuel analyses demonstrates the Hg constituents to exceed 30 micrograms/m^3 of Hg, fuel sampling and analyses shall revert to monthly, until

another 12 months of analyses can demonstrate the Hg constituents to be less than 30 micrograms/m^3 of Hg;

d. if the initial fuel analysis demonstrates that the Hg constituents in the gaseous fuels are measured to be equal to or less than 20 micrograms/m^3 of Hg, no further sampling or fuel analysis is required;

e. if the initial fuel analysis demonstrates that the Hg constituents in the gaseous fuels are measured to be greater than 20 micrograms/m^3 of Hg but less than or equal to 30 micrograms/m^3 of Hg, semiannual sampling and analysis shall be conducted;

f. if following 6 consecutive semi-annual fuel analyses it can be demonstrated that the Hg constituents in the gaseous fuels are equal to or less than 20 micrograms/m^3 of Hg, no further sampling or fuel analysis is required;

g. if the initial fuel analysis exceeds 40 micrograms/m^3 of Hg, the boiler(s) burning this gaseous fuel shall not be considered as unit(s) designed to burn gas 1 subcategory fuels and shall instead be required to meet the emission and operating limits for the appropriate subcategory, unless future analyses can meet the requirements above.

[40 CFR 63.7540(c)], [40 CFR 63.7530(g)], and [40 CFR 63.7521(f) through (i)]

(35) If meeting the requirements of a limited-use boiler, the operating hours and fuel usage records shall be maintained for each boiler that is operated under this subcategory. The boiler is restricted to a federally enforceable average annual capacity factor of no more than 10%.

[40 CFR 63.7525(k)] and [40 CFR 63.7575]

(36) The permittee shall maintain records of the following information for the boiler(s) in order to meet the record keeping requirements of 40 CFR 63.7525, 40 CFR 63.7555, 40 CFR 63.10(b) and (c), and to demonstrate compliance with the Subpart DDDDD:

a. a copy of each notification and report that is submitted to comply with Part 63 Subpart DDDDD, including all documentation supporting the Initial Notification and all subsequent Notifications of Compliance Status and/or semiannual compliance reports;

b. records of performance test, opacity and/or visible emission observations, fuel analyses, and performance evaluations of CMS;

c. for each CEMS, COMS, and CMS the following records:

i. records required under 40 CFR 63.10(b)(2)

(a) all required measurements needed to demonstrate compliance with the applicable standard, including but not limited to the 15-minute, 1-hour, 12-hour, 10-day rolling, and/or 30-day rolling averages of CMS data, as applicable; the raw performance testing

and performance evaluation measurements; and opacity data from COMS;

(b) the results of all performance tests, CMS performance evaluations, and opacity COMS data;

(c) all measurements as may be necessary to determine conditions of performance tests and performance evaluations;

(d) all CMS calibration checks; and

(e) all adjustments and maintenance performed on the CMS;

ii. monitoring data for COMS during performance evaluations;

iii. results of each inspection, calibration, validation check, system accuracy audits, and zero and span adjustments;

iv. each period of time when the CMS is malfunctioning, inoperative, or out of control and data is not available, to document each deviation;

v. previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3);

vi. the date and time that each deviation started and stopped;

d. the records required in Table 8 to the subpart, i.e., records of all monitoring data and calculated averages for the applicable operating limits, opacity, operating load, and oxygen concentration of exhaust stack, and reduced to the appropriate averaging periods;

e. the monthly fuel usage of each boiler, including the type(s) of fuel and amount(s) used;

f. a copy of the calculations supporting documentation of the maximum Cl fuel input using Equation 7 of 40 CFR 63.7530(b); and if demonstrating compliance with the HCl emission limit through fuel analyses, the HCl emission rate using Equation 16 of 40 CFR 63.7530(c);

g. a copy of the calculations supporting documentation of the maximum Hg fuel input using Equation 8 of 40 CFR 63.7530(b); and if demonstrating compliance with the Hg emission limit through fuel analyses, the Hg emission rate using Equation 17 of 40 CFR 63.7530(c);

h. a copy of the calculations supporting documentation of the maximum TSM fuel input using Equation 9 of 40 CFR 63.7530(b); and if demonstrating compliance with the TSM emission limit through fuel analyses, the TSM emission rates using Equation 18 of 40 CFR 63.7530(c);

i. any records demonstrating stack test emissions were less than 75% of the applicable limit (or less than a special emission limitidentified in footnote “a”to

Table 2), and documentation that there were no changes made in source operations, air pollution control equipment, or fuel composition, to qualify for less frequent than annual stack testing;

j. the occurrence and duration (date and time) of each malfunction of any subject boiler and/or the associated air pollution control and monitoring equipment;

k. actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the equipment to normal operations;

l. records of the calendar date, time, occurrence, and duration or each startup and shutdown; and the record of the type(s) and amount(s) of fuels burned during each startup and shutdown;

m. if electing to demonstrate that the boiler meets the specification for Hg for units designed to burn gas 1 (subcategory) fuels, the monthly records (or frequency required by 40 CFR 63.7540(c)) of the calculations and results of the fuel specification for Hg in Table 6;

n. if burning an alternative fuel in a boiler designed to burn gas 1 (subcategory) fuels, i.e., fuels other than natural gas, refinery gas, or gaseous fuels subject to another subpart or part of the CFR, the records of the total hours per calendar year that the alternative fuel was burned and the total hours per calendar year that the boiler operated during periods of gas curtailment or gas supply emergencies;

o. if electing to demonstrate compliance through emissions averaging for existing boilers, the averaging implementation plan; and, in accordance with 40 CFR 63.7522 and 40 CFR 63.7541, all monthly calculations, including monthly records of heat input or steam generation; and after the first year, calculations for each rolling 12-months;

p. if electing to use efficiency credits from energy conservation measures to demonstrate compliance, according to 40 CFR 63.7533, a copy of the Implementation Plan and all data and calculations used to establish the efficiency credits;

q. for each boiler in the limited use subcategory, a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10%; and the fuel usage records for the days the boiler was operating;

r. for units that burn non-hazardous waste (except those burning homogeneous waste identified as exempt under section 129(g)(1) of the Clean Air Act) shall maintain the following records for the non-hazardous waste:

    i. if combusting non-hazardous secondary materials that have been determined not to be solid waste, a record that documents how the material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1);

ii. if combusting non-hazardous materials processed from discarded secondary materials, a record that documents how the operations that produced the fuel satisfy the definition of processing in 40 CFR 241.2;

iii. if combusting a fuel that received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), a record that documents how the fuel satisfied the requirements of the petition process; and

iv. if combusting non-hazardous secondary materials as fuel per 40 CFR 241.4, records that document that the material is listed as a non-waste under 40 CFR 241.4(a);

s. records documenting that that each boiler operator has completed training for startup and shutdown procedures; and

t. for each startup and shutdown event, records documenting that the work practice standards of Table 3 #5 for startups and Table 3 #6 for shutdowns are met.

These records shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

*The information needed to demonstrate compliance with the SSMP plan may be recorded using a "checklist" or some other effective form of record keeping, in order to minimize the recording burden for conforming procedures.

[40 CFR 63.7525(d)], [40 CFR 63.7555] and [40 CFR 63.7560], and [40 CFR 63, Subpart DDDDD Table 3 #5 and #6]

(37) Data recorded during monitoring system malfunctions or out-of-control periods, repairs, or required monitoring system quality assurance and control activities shall not be used in data averages and calculations used to report emissions or operating levels used for demonstrating compliance. Data collected during all other periods of time shall be used in assessing compliance with the emissions limits (CEMS) and the operating limits of the control device or system. Records shall be made available, upon request, of results of CMS performance audits and the dates and duration of each period when the CMS is out of control, to completion of the corrective actions needed to return the CMS to operation consistent with the site-specific monitoring plan and Tables 4 and 8 to Subpart DDDDD. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements.

[40 CFR 63.7525(d)] and [40 CFR 63.7535(c) and (d)]

(38) The CAM plan for these emissions units has been developed for particulate emissions. The CAM performance indicators for particulate emissions are the opacity of the visible particulate emissions from the baghouse exhaust stack, the flue gas temperature prior to the baghouse and the baghouse pressure drop.

Stack opacity is measured and recorded by the certified continuous opacity monitoring (COM) system. The visible particulate emissions indicator range is each six-minute block average with an opacity action level value greater than 10%. When the opacity value is greater than 10%, corrective action (including, but not limited to, an evaluation of the emissions unit the COM system and the baghouse) will be required.

The ranges for normal operation are:

Parameter	Indicator Range
Opacity	≤10%
Flue gas temperature prior to the baghouse	≥ 250 °F
Baghouse Pressure Drop	≥ 5.8”

When the opacity exceeds 10% for more than six consecutive minutes and the hourly average of one of the above parameters is outside of the indicator ranges above, additional corrective action focused on the cyclone and/or baghouse will be required. When opacity exceeds 10% for more than six consecutive minutes and the hourly averages for the pressure drop and temperature parameters are within the indicator ranges above, corrective action focused on the emission unit will be required.

Upon detecting an excursion of the visible particulate emission value above 10% opacity, the owner or operator shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit reports (in electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and 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 visible 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

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

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

b. the calculated sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from each shipment of coal received.

[Authority for term: OAC rules 3745-18-04(D) and 3745-77-07(C)(1)]

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

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in (3)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in (3)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in (3)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rules 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C); and OAC rule 3745-77-07(C)(1)]

[Compliance Assurance Monitoring Plan: 40 CFR Part 64.9(a)]

(4) The site-specific fuel analyses plan must be submitted no later than 60 days before the date of the intended initial compliance demonstration and it shall include the following information, as identified in 40 CFR 63.7521(b):

a. the identification of all fuel types anticipated to be burned in each boiler;

b. for each anticipated fuel type, a statement as to whether the fuel supplier or the facility will be conducting the fuel analyses;

c. for each anticipated fuel type, a detailed description of the sampling location(s) and specific procedures to be used for collecting and preparing composite samples if the procedures are different from those identified in 40 CFR 63.7521(c) or (d); and

d. for each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels to be used for the measurement of Cl or Hg.

[40 CFR 63.7521(b)(2)]

(5) The permittee shall submit, to the appropriate Ohio EPA District Office or Local Air Agency, the following notifications in accordance with the applicable requirements of 40 CFR 63.7545, 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and (6), and 40 CFR 63.9(b) through (h):

a. an Initial Notification that the source is subject to Part 63 Subpart DDDDDshall be submitted no later than 5/31/13 for any boilerwith a startup date before 1/31/13; or

b. semiannual, annual, or 5 year (as applicable) compliance reports containing the information identified in 40 CFR 63.7550;

c. a Notification of Intent to conduct a performance test or CMS performance evaluation must be submitted at least 60 days before the performance test or performance evaluation is scheduled to begin; the notification must include the site specific test plan and site-specific performance evaluation test plan;

d. the Initial Notification of Compliance shall including all performance test and fuel analyses results completed to demonstrate compliance; and the notification must be submitted before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations. The Initial Notification of Compliance Status report must contain the following information:

i. A description of the facility boilers including:

(a) identification of the subcategory each boiler is in;

(b) the design heat input capacity of the/each unit;

(c) a description of the add-on controls used on each boiler;

(d) description of the fuel(s) burned,

(e) identification of fuel(s) that were determined to be a non-waste or fuel(s) processed from discarded non-hazardous secondary materials under 40 CFR 241.3; and

(f) the justification for the selection of fuel(s) burned during the compliance demonstration.

ii. a summary of the results of all performance tests and fuel analyses, including the calculations used to demonstrate initial compliance and the operating limits that have been established;

iii. identification of whether compliance will be demonstrated with the PM emission limit or the alternative TSM emission limit;

iv. identification of whether compliance will be demonstrated with the output-based emission limits (lb/MMBtu steam output or lb/MWh) or the heat input-based emission limits (lb/MMBtu or ppm);

v. if not using CO CEMS, a summary of the maximum carbon monoxide emission levels recorded during the performance test, demonstrating that the applicable emission standard in Table 2 has or has not been met;

vi. identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis;

vii. identification of any plan to demonstrate compliance by emissions averaging for existing boilers, which must contain the emission level that was being achieved or the control technology employed on 1/31/13, for each boiler participating in the averaging option;

viii. identification of any plan to demonstrate compliance by using efficiency credits through energy conservation;

ix. a signed certification that all applicable emission limits and work practice standards have been met.

x. a description of any deviation(s) from an emission limit, work practice standard, or operating limit, the duration of the deviation, and the corrective action taken.

xi. the following certification(s) of compliance, as applicable, must be signed by a responsible official:

(a) certification that the facility has complied with the required initial tune-up in accordance with 40 CFR 63.7540(a)(10)(i) through (vi);

(b) for existing units, certification that the facility has completed a one-time energy assessment performed according to 40 CFR 63.7530(e) and that it is an accurate depiction of the facility at the time of the assessment; and

(c) except for boilers burning natural gas, refinery gas, or other gas 1 fuel, certification that no secondary materials that are solid waste were combusted in any affected unit;

e. if the unit is designed to only burn natural gas, refinery gas, or "other gas 1 fuel", as defined in 40 CFR 63.7575;

f. if the unit is designed to burn natural gas, refinery gas, or other gas 1 fuels, and there are plans to use an alternative fuel during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, a notification of alternative fuel use must be submitted within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification must include the following information:

i. facility name and address;

ii. identification of the affected unit(s);

iii. the reason natural gas or equivalent fuel cannot be used;

iv. the date when the natural gas curtailment was declared or the natural gas supply interruption began;

v. the type of alternative fuel to be used; and

vi. the dates when the alternative fuel use is expected to begin and end.

g. if there are any plans to switch fuels or make a physical change to a boiler, and this fuel switch or change to the boiler may result in the applicability of a different subcategory, notification of the switch must be made at least 30 days prior to the date of the switch or change and this notification must identify:

i. the name of the facility, the location of the source, the boiler(s) that will switch fuels or were physically changed;

ii. the applicable subcategory of the boiler(s) before and after the switch;

iii. the date on which the fuel switch or physical change occurred;

iv. the planned date for the fuel to be switched; and

v. the date of the notice.

[40 CFR 63.7545], [40 CFR 63.7530(e), (f), and (g)], and [40 CFR 63.9(b) through (h)]

(6) The permittee shall submit each applicable report in Table 9 to Part 63, Subpart DDDDD. For boilers that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively, and not subject to emission limits or operating limits, only an annual, biennial, or 5-year compliance report is required.

The first compliance report must cover the period beginning on the compliance date, 1/31/16 for existing boilers, and ending on June 30 or December 31, whichever date is the first date that occurs 180 days after the compliance date (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report). Unless otherwise approved, the first compliance report must be postmarked or submitted no later than July 31 or January 31, following the end of the first calendar half after the compliance date. The first annual, biennial, or 5-year compliance report must be postmarked or delivered no later than January 31. Each subsequent compliance report must be submitted in accordance with the same applicable schedule; and, except where only required to submit annual, biennial, or 5-year reports, must cover each semiannual reporting period from January 1st through June 30th and from July 1 through December 31 of each year.

[40 CFR 63.7550(b)]

(7) The permittee shall submit semiannual compliance reports and deviation reports as required per 40 CFR 63.7550 and Table 9 to Part 63 Subpart DDDDD, unless the boiler is only subject to an annual or 5-year tune-ups, where the compliance report will instead be submitted annually or every 5 years, correlating with the tune-up schedule identified in Table 3 to Subpart DDDDD. The compliance reports shall include the information identified in 40 CFR 63.7550(c) and deviation reports shall include the information identified in 40 CFR 63.7550(d) and (e). The Compliance Reports for Part 63, Subpart DDDDD must contain the following information as applicable for each boiler:

a. the company and facility name and address;

b. process unit information, emissions limitations, and operating parameter limitations;

c. the date of report and beginning and ending dates of the reporting period;

d. the total operating time during the reporting period;

e. if using a CMS, including CEMS, COMS, or CPMS to demonstrate compliance, the monitoring equipment manufacturer(s) and model numbers, and date of the last certification or audit for each CMS;

f. the total fuel use by each individual boiler subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for

concluding that the fuel is not a waste, and the total fuel usage amount with units of measure;

g. a summary of the results of the annual performance tests for the boilers subject to an emission limit, a summary of any fuel analyses associated with performance tests, and documentation of the operating limits that were reestablished during the performance test;

h. the calculated 30-day rolling average values based on daily CEMS (PM, CO and/or Hg) and CPMS data (PM CPMS output or parameter monitoring results);

i. if qualifying for the less frequent than annual performance testing in accordance with 40 CFR 63.7515(b) or (c), where emissions are at or below 75% of the applicable emission limit for 2 consecutive years, the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions;

j. a signed statement indicating that no new types of fuel were burned in each affected boiler subject to an emission limit; or, if a new type of fuel was used and subject to a HCl or Hg emission limit, or TSM if opting to comply with TSM standard:

   i. the calculation of the maximum Cl, Hg, and/or TSM input, using Equations 7 (for Cl), 8 (for Hg), or 9 (for TSM) of 40 CFR 63.7530(b), that demonstrates the unit is still within its maximum Cl, Hg, and/or TSM input level established during the previous performance testing; and

   ii. in addition, for boilers that demonstrate compliance through fuel analyses, the calculation of the HCl, Hg, and/or TSM emission rate using Equations 15 for the 90th percentile confidence level fuel pollutant concentration and Equations 16 (for HCl), 17 (for Hg), and/or 18 (for TSM) of 40 CFR 63.7530(c) that demonstrates the unit is still meeting the emission limit for HCl, Hg, and/or TSM;

k. if it cannot be demonstrated that a new type of fuel can comply with the applicable maximum Cl, Hg, and/or TSM input using Equation 7, 8, or 9 of 40 CFR 63.7530(b), a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel;

l. a summary of any monthly fuel analyses conducted to demonstrate compliance according to 40 CFR 63.7521 and 40 CFR 63.7530 and calculated emissions for individual boilers subject to emission limits; and following the first 12 months of compliance, the rolling 12-month average emissions for each month during the compliance period;

m. any fuel specification analyses conducted in accordance with 40 CFR 63.7521(f) and 40 CFR 63.7530(g);

n. if electing to demonstrate that a gaseous fuel meets the specification of "other gas 1 fuel", as defined in 40 CFR 63.7575, a signed certification stating that the fuel analyses, conducted in accordance with 63.7521(f) through (i) and at the frequency identified in 40 CFR 63.7540(c), demonstrates that the Hg constituents in the gaseous fuel will never exceed 40 micrograms/m^3 of Hg;

o. if there are no deviations from any emission limits or operating limits, a statement that there were no deviations from the emission limits or operating limits during the reporting period;

p. if there were no deviations from the monitoring requirements including no periods during which the CMSs (CEMS, COMS, and CPMS), were out of control as specified in 40 CFR 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period;

q. if a malfunction occurred during the reporting period, the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded;

r. a description of actions taken during a malfunction of a boiler, or associated air pollution control device or CMS to minimize emissions in accordance with 40 CFR 63.7500(a)(3), including actions taken to correct the malfunction;

s. the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively; and include the date of the most recent burner inspection if the tune-up was not done annually, biennially, or on a 5-year period, as applicable, if delayed until the next scheduled or unscheduled shutdown;

t. if demonstrating compliance through emission averaging, certification that the emission level achieved or the control technology employed is no less stringent that the level or control technology contained in the notification of compliance status;

u. if subject to an emission limit in Table 2 to Subpart DDDDD, the date of each startup and shutdown event during the compliance period; and either a statement affirming that the work practice standards identified in Table 3 #5 and #6 were met; or identification of the work practice standards identified in Table 3 that were not met;

v. a 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;

w. for each deviation from an emission limit or operating limit that occurs at each individual boiler that is not monitored by a CMS to comply with the emission limit or operating limit, the following information is required:

i. a description of the deviation and which emission limit or operating limit was exceeded or not met;

ii. information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken; and

iii. if the deviation occurred during an annual performance test, the date the annual performance test was completed;

x. for each deviation from an emission limit, operating limit, and monitoring requirement, including a deviation from the site-specific monitoring plan, where a CMS is used to demonstrate compliance, the following information is required:

i. the date and time that each deviation started and stopped and description of the nature of the deviation;

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

iii. the date, time, and duration that each CMS was out of control, including the information in 40 CFR 63.8(c)(8);

iv. the date and time that each deviation started and stopped;

v. 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;

vi. a characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;

vii. a summary of the total duration of CMS's 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;

viii. a brief description of the source for which there was a deviation;

ix. a description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation; and

x. the date of the latest CMS certification or audit for the system for which there was a deviation.

[40 CFR 63.7550(a) through (e)], [40 CFR 63.7535(d)], [40 CFR 63.7540(b)], [40 CFR 63.7515(f)], and [40 CFR Subpart DDDDD Tables 8 and 9]

(8) Within 60 days after the date of completing each performance test, associated fuel analyses, CEMS performance evaluations, and/or relative accuracy test audits, the test results and compliance reports required in 40 CFR 63.7550(b) must be submitted electronically to EPA's WebFIRE database by using the Compliance and Emissions Data

Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (http://www.epa.gov/cdx). Performance test data must be submitted in the file format generated through EPA's Electronic Reporting Tool (ERT) at *http://www.epa.gov/ttn/chief/ert/index.html*. Only data collected using test methods on the ERT website are subject to being submitted electronically to WebFire. Test data must also be submitted to the Ohio EPA through the "eBusiness Center, Air Services" website.

[40 CFR 63.7550(h)], [40 CFR 63.72525(b)(5)(iv)], and [40 CFR 63.7515(f)]

f) Testing Requirements

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

a. Emission Limitation:

Visible PE shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance with the visible PE limitation is demonstrated by the monitoring and record keeping requirements specified in d)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

PE shall not exceed 0.15 lb per million Btu of actual heat input.

Applicable Compliance Method:

PE shall be demonstrated in accordance with test Methods 1 through 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office. See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

SO_2 emissions shall not exceed 4.7 lbs per MMBtu of actual heat input.

Applicable Compliance Method:

Compliance with the SO_2 emission limitation shall be based on the record keeping specified in d)(2) and d)(3) and the following equation:

SO_2 emissions from solid fuel samples shall be calculated as follows:

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

where:

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

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

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

[OAC rule 3745-18-04(F)(1)]

If required, SO_2 emissions shall be demonstrated in accordance with test Methods 1 through 4 and Method 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

[Authority for term: OAC rules 3745-18-04(F)(1) and 3745-77-07(C)(1)]

d. Emission Limitation:

NO_x emissions shall not exceed 0.30 lb per MMBtu of actual heat input while burning coal.

Applicable Compliance Method:

If required, compliance with the lb per MMBtu NO_X emission limitation shall be demonstrated based upon emissions testing performed in accordance with Methods 1 through 4 and Method 7 or 7E in Appendix A of 40 CFR Part 60.

[Authority for term: OAC rules 3745-110-03(B) and 3745-77-07(C)(1)]

e. Emission Limitations:

The emissions from this boiler shall not exceed the following emission limitations or the limitations specified in the most recent amendment to 40 CFR Part 63, Subpart DDDDD, and as identified in Table 2 for existing units:

4.0E-02 lb of filterable particulate matter (PM)/MMBtu of heat input; or

5.3E-05 lb of Total Selected Metals (TSM)/MMBtu of heat input; and

2.2E-02 lb of hydrogen chloride (HCl)/MMBtu of heat input; and

5.7E-06 lb of mercury (Hg)/MMBtu of heat input; and

160 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, 3-run average; or, if using CEMS:

340 ppm carbon monoxide (CO) by volume on a dry basis, corrected to 3% O_2, as a 30-day rolling average.

OR output limits (option):

4.2E-02 lb of PM/MMBtu of steam output; or

5.6E-05 lb of TSM/ MMBtu of steam output; and

2.5E-02 lb of hydrogen chloride (HCl)/MMBtu of steam output; and

6.4E-06 lb of mercury (Hg)/MMBtu of steam output; and

0.14 lb CO/MMBtu of steam output, 3-run average.

Applicable Compliance Method:

For existing boilers, the permittee shall conduct an initial performance test on or before 7/29/16 to demonstrate compliance with the requirements of Part 63 Subpart DDDDD. The appropriate tests methods from Table 5 to Subpart DDDDD shall be conducted while establishing operating limits in accordance with Table 7 to the subpart. Boilers equipped with CEMS for Hg are exempt from the performance testing requirements for Hg and the sorbent or carbon injection operating limits for a dry scrubber if meeting the performance evaluation and certification requirements for Hg CEMS and 40 CFR 63.7540(a)(14).

f. Emission Limitation:

CO emissions shall not exceed the applicable limitation identified in Table 2 in 40 CFR Part 63, Subpart DDDDD, in ppm by volume on a dry basis, corrected to 3% oxygen.

The oxygen content must be maintained at or above the lowest hourly average O_2 level measured during the most recent CO performance test.

Applicable Compliance Method:

Each boiler subject to a CO emission limit in Table 2 to SubpartDDDDD, shall be equipped with either an oxygen analyzer system, as defined in 40 CFR 63.7575, or CEMS for both CO and oxygen. The initial compliance demonstration for CO shall include a performance test for CO according to Table 5 (Method 3A or 3B) to the subpart or conduct a performance evaluation of the CEMS for CO. Compliance with the CO standard shall be demonstrated as follows and as applicable depending on the compliance option:

i. Where electing to install CEMS for CO and O_2 the following requirements shall be met:

(a) The CO CEMS shall be installed, certified, operated, and maintained in accordance Performance Specification 4, 4A, or 4B at 40 CFR Part 60, Appendix B.

(b) The O_2 CEMS shall be installed, certified, operated, and maintained in accordance Performance Specification 3 at 40 CFR Part 60, Appendix B.

(c) The CO CEMS, O_2 CEMS, and/or oxygen analyzer shall be installed certified, operated, and maintained in accordance with the site-specific monitoring plan, and the requirements in 40 CFR 63.7525(a) and 63.7540(a)(8).

(d) The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler's control device.

(e) The permittee shall conduct, or have conducted, performance evaluations of the COCEMS on or before 7/29/16 for existing boilers. The performance evaluation of each CO CEMS shall be conducted in accordance with Performance Specification 4, 4A, or 4B (from 40 CFR Part 60 Appendix B), and as required in 40 CFR 63.7525(a), 40 CFR 63.8(e), and the performance evaluation test plan.

(f) Relative accuracy testing of the CO CEMS must be conducted concurrently (or within a 30 to 60 minute period) with Method 10, 10A, or 10B, 40 CFR Part 60, Appendix A-4 and the boiler must be operating at representative conditions.

(g) Quality assurance procedures, i.e., quarterly accuracy determinations and daily calibration drift tests, shall follow Procedure 1 of Appendix F to Part 60.

(h) The measurement span value of the CO CEMS shall be 2 times the applicable CO emission limit, expressed as a concentration.

(i) The CO and O_2 CEMS data shall be collected concurrently.

(j) The CO and O_2 CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive minute of operations (Ohio policy), with an average recorded for each 15-minute period. Data from the CEMS (excluding that collected during calibration, quality assurance, or maintenance activities, out-of-control periods, and/or CEMS breakdown) shall be reduced to 1-hour averages, computed from the four 15-minute averages and corrected to 3% oxygen on a dry basis, in ppm.

(k) At least two 15-minute data values must be collected during any hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(l) Equation 19-19 in Section 12.4.1 of Method 19 at Part 60 Appendix A-7 shall be used for calculating the average CO

concentration from the hourly values. The 1-hour arithmetic averages shall be used to calculate the 30-day or 10-day rolling averages, as applicable.

(m) The permittee shall submit written notification of the date of the CEMS performance evaluation to both the Central Office and the appropriate District Office or local air agency of the Ohio EPA, Division of Air Pollution Control, at least 60 days prior to the date the performance evaluation is scheduled to begin.

The minimum oxygen level operating limit shall be established as the lowest hourly average established during the most recent performance test demonstrating compliance with the CO limit.

ii. Where electing to install an oxygen analyzer or oxygen trim system, the following requirements shall be met:

(a) the systemshall maintain excess air at the desired level in the boiler by providing an automatic feedback signal to thecombustion air controller;

(b) the system shall be installed, certified, operated, and maintained in accordance Performance Specification 4, 4A, or 4B of 40 CFR Part 60, Appendix B; and

(c) the system shall be set and operated to maintain the oxygen level at the lowest hourly average oxygen concentrationmeasured during the most recent CO performance test demonstrating compliance, and as theoperating limit for oxygen,in accordance with Table 7 to Subpart DDDDD.

[40 CFR 63.7525(a)], [40 CFR 63.7515(i)], [40 CFR 63.7530(b)(4)], [40 CFR 63.7540(a)(8)], [40 CFR 63.7510(c)], and [40 CFR 63.8]

(2) Performance testing must be conducted on an annual basis in accordance with 40 CFR 63.7520 and completed no more than 13 months after the previous performance test. If after 2 consecutive years the emissions of a pollutant identified in Table 2 are at or below 75% of the emissions limit for that pollutant and there have been no changes in the operation of the boiler or air pollution control equipment that could increase emissions, performance testing may revert to every 3 years, or no more than 37 months after the previous test, for the pollutant. If the pollutant exceeds 75% of the applicable limit, testing shall revert back to annually, until the performance tests over another consecutive 2-year period have demonstrated the emissions to be at or below 75% of the emission limit identified in Table 2 as applicable to the boiler. For each existing boiler in which compliance is demonstrated through emissions averaging, performance testing shall remain annually. The average operating load must be recorded during each performance test.

Following an initial compliant performance test with the emission limits in Table 2, further performance tests are not required for a boiler designed to burn light liquid fuels and that

only burns ultra-low sulfur liquid fuel, if the fuel is monitored and monthly records can demonstrate that only ultra-low sulfur liquid fuel is burned in the boiler.

Performance testing is not required for boilers designed to burn gas 1 fuels subcategory, where monthly records can document the fuel usage and that it meets the specifications of "gas 1 fuel". Following the compliance test date, a performance test must be conducted for each new fuel not meeting the specifications of "gas 1 fuel" within 60 days of first burning it.

If an affected boiler and a non-affected unit(s) vent(s) to a common stack, the non-affected unit(s) must be shut down or vented to a different stack during the performance test, unless compliance can be demonstrated with the non-affected units venting to the stack during the performance demonstration.

The following test method(s) shall be employed, in accordance with Table 5 to Subpart DDDDD, to demonstrate compliance with the allowable mass emission rate(s)*:

Method 1, Appendix A-1, Part 60 to select the sampling ports locations and number of traverse points;

Method 2, 2F, or 2G, Appendix A-1 or A-2, Part 60 to determine the velocity and volumetric flow-rate of the stack gases;

Method 3A or 3B, Appendix A-2, Part 60, or ANSI/ASME PTC19.10 to determine the oxygen and/or carbon dioxide concentrations, excess air, and dry molecular weight of the stack gases;

Method 4, Appendix A-3, Part 60 to measure the moisture content of the stack gases;

Method 5 (positive pressure fabric filters shall use Method 5D)or 17 Appendix A-3 or A-6, Part 60 for PM emission concentration;

Method 7, 7A, 7C, 7D, or 7E, Appendix A, Part 60, as appropriate, if subject to OAC 3745-110, the NOx RACT;

Method 10 Appendix A-4, Part 60 to measure the CO emission concentration; or

Performance Specification 4, 4A, or 4B, Appendix B of 40 CFR Part 60 for CO CEMS, and Performance Specification 3, Appendix B of 40 CFR Part 60 for O_2 CEMS and compliance with 40 CFR 63.7525(a) and 40 CFR 63.7540(a)(8)***;

Method 26 or 26A, Appendix A-8, Part 60 to measure HCl emissions concentrations;

Method 29 Appendix A-8, Part 60 for the TSM emission concentration;

Method 29, 30A, or 30B, Appendix A-8, Part 60; or Method 101A in Appendix B to Part 61; or ASTM Method D6784for the Hg emission concentration; or

Performance Specification 12A, Appendix B of 40 CFR Part 60 for Hg CEMS and compliance with 40 CFR 63.7525(l) and 40 CFR 63.7540(a)(14)**;

Method 19 F-factor methodology, Appendix A-7 to Part 60 to convert PM, HCl, Hg, and TSM concentrations to pound per MMBtu emission rates; and

COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test, where compliance with the opacity limitation is met by using COMS data.

* Except for 30-day rolling averages based on CEMS (or sorbent trap systems), if measurement results for any pollutant are reported as below the analytical method's detection level, the method detection level shall be used as the measured emission level in calculating compliance (40 CFR 63.7520(f)).

** Per 40 CFR 63.7510(b), boilers using Hg CEMS are not required to have a performance test conducted for Hg and are not subject to the operating limit requirements for Hg, if the meet the requirements of 40 CFR 63.7525(l) and 40 CFR 63.7540(a)(14).

*** Per 40 CFR 63.7515(i), boilers using CO and O_2 CEMS are not required to have a performance test conducted for CO and are not subject to the oxygen concentration operating limit if the CEMS meet the requirements of 40 CFR 63.7525(a) and 40 CFR 63.7540(a)(8).

Sampling sites shall be located after the control device and prior to any releases to the atmosphere.

a. To determine compliance with the emission limitations from Subpart DDDDD, the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of Appendix A to part 60 shall be used to convert the measured PM or TSM, HCl, and Hg concentrations from the performance test, to pounds per million Btu heat input emission rates.

b. Each performance test shall consist of 3 separate runs as specified in 40 CFR 63.7(e)(3), using the applicable test methods in Table 5. Each test run shall last at least one hour and shall be conducted under the conditions specified in Tables 5 and 7, and must met the minimum sampling times and volumes specified in the last column of Table 2 for existing boilers.

c. During each performance test the maximum operating load shall be established by collecting the operating load or steam generation data every 15 minutes during the entire performance test. The average operating load shall be computed from the hourly averages using all of the 15-minute readings taken during each performance test. The maximum operating load shall be calculated as the average of the 3 test runs established during the most recent performance tests multiplied by 1.1 (110%).

d. The performance tests shall be conducted while the boiler is operating at representative operating load conditions, while burning the mixture(s) of fuel containing the highest content of Cl, Hg, and TSM if complying with the alternative standard for PM. These requirements could result in the need to conduct more than one performance test. Operations during periods of startup,

shutdown, and malfunction shall not constitute representative conditions for the purpose of the performance test. The permittee shall make available to the Ohio EPA, Division of Air Pollution Control, Central Office or the appropriate District Office or local air agency, upon request, any records that may be necessary to determine the conditions of the performance tests.

e. In order to establish the site-specific operating limits as required by 40 CFR 63.7530(b)(4) and Table 4 to Subpart DDDDD, the permittee shall collect and record the appropriate parameters for the control device, in accordance with Table 7 to the subpart, every 15 minutes during each performance test. The minimum operating parameters shall be established as follows:

i. When conducting a compliance demonstration for PM or TSM, or Hg and using a wet PM scrubber, the permittee shall collect and record the scrubber pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum scrubber pressure drop and minimum liquid flow rate shall be determined based on the lowest hourly average scrubber pressure drop and lowest hourly average liquid flow rate measured during the most recent performance tests demonstrating compliance; and shall be established as the minimum operating parameters for the wet scrubber.

ii. When conducting a compliance demonstration for PM or TSM, or Hg and using an electrostatic precipitator, the permittee shall collect and record the secondary voltage and secondary amperage for each ESP cell, calculate the total secondary electric power input data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum total secondary electric power shall be determined based on the lowest hourly average total secondary electric power input measured during the most recent performance tests demonstrating compliance; and shall be established as the minimum operating parameter for the ESP.

iii. When conducting a compliance demonstration for HCl and using a wet scrubber, the permittee shall collect and record the pH and liquid flow-rate data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum scrubber effluent pH and minimum scrubber liquid flow rate shall be determined based on the lowest hourly average sorbent liquid pH measured at the inlet to the wet scrubber and the lowest hourly liquid flow rate measured during the most recent performance tests demonstrating compliance with the HCl limit; and shall be established as the minimum operating parameters for the wet scrubber.

iv. When conducting a compliance demonstration for HCl and using a dry scrubber, the permittee shall collect and record the sorbent injection rate

data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum sorbent injection rate shall be determined based on the lowest hourly average sorbent injection rate measured during the most recent performance tests demonstrating compliance with the HCl limit; and shall be established as the minimum operating parameters for the dry scrubber at the load fraction maintained during the performance test. When operating at lower loads, the minimum sorbent injection rate shall be determined by multiplying the sorbent injection rate operating limit established during the performance test by the operating load fraction of the boiler.

v. When conducting a compliance demonstration for Hg and using a dry scrubber with activated carbon injection, the permittee shall collect and record the activated carbon injection rate data every 15 minutes during the entire period of the performance tests, and compute the hourly averages using all of the 15-minute readings taken during each performance test. The minimum activated carbon injection rate shall be determined based on the lowest hourly average activated carbon injection rate measured during the most recent performance tests demonstrating compliance with the Hg limit; and shall be established as the minimum operating parameters for the dry scrubber at the load fraction maintained during the performance test. When operating at lower loads, the minimum activated carbon injection rate shall be determined by multiplying the sorbent injection rate operating limit established during the performance test by the operating load fraction of the boiler.

vi. For boilers equipped with either a wet scrubber or dry sorbent injection system and subject to an HCl emission limit, and where choosing to establish an operating limit using SO_2 CEMS, the permittee shall establish the unit-specific maximum SO_2 operating limit by continuously monitoring SO_2 and calculating the hourly average SO_2 emission rate during the 3-run performance test for HCl. The maximum SO_2 operating limit shall be equal to the highest hourly average SO_2 concentration measured during the HCl performance test; and the CEMS data shall be calculated on a 30-ay rolling average basis to demonstrate compliance with this maximum concentration. On-going quality assurance shall be established by meeting the daily, quarterly, semiannual, and/or annual requirements of Part 75, Appendix B Sections 2.1 through 2.3; and linearity checks (required in Section 2.2) must be performed if the SO_2 CEMS has a span value of 30 ppm or less. The performance evaluation, using Performance Specification 2, shall be conducted no later than 180 days following the applicable compliance date, or by 7/29/16 for existing boilers, and within 180 days following startup of an existing boiler starting operations following the compliance date, where the boiler has not been in operation.

vii. Where demonstrating compliance with a CO limit, the minimum oxygen level operating limit shall be established as the lowest hourly average

measured during the most recent performance test demonstrating compliance with the CO limit.

f. If using a wet scrubber and conducting separate performance tests for HCl and Hg emissions, one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits shall be established. The minimum scrubber effluent pH operating limit shall be established during the HCl performance test; and the minimum liquid flowrate operating limit shall be set at the higher of the minimum values established during the performance tests.

g. The permittee shall notify the appropriate Ohio EPA, Division of Air Pollution Control, District Office or local air agency in writing and at least 60 calendar days before a performance test is initially scheduled to begin, of plans to conduct a performance test. If a performance evaluation of the COMS or CEMS is to be conducted at the same time, the Division of Air Pollution Control's Central Office shall also be notified. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the monitored 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 Division of Air Pollution Control's refusal to accept the results of the emission test(s).

h. Personnel from the appropriate Ohio EPA, Division of Air Pollution Control, District Office, local air agency, or Central Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of each emissions unit and the testing procedures provide a valid characterization of the emissions from each emissions unit and/or the performance of the baghouse and wet scrubber.

i. 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 shall be submitted to the appropriate Ohio EPA, Division of Air Pollution Control, District Office or local air agency within 30 days following completion of the test(s).

j. In the event the permittee is unable to conduct the performance test on the date specified in the notification requirement due to unforeseeable circumstances beyond control, the permittee shall notify the appropriate Ohio EPA, Division of Air Pollution Control, District Office or local air agency as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the permittee of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable federal, State, or local requirement.

k. The permittee shall maintain performance test results and any other data needed to determine emissions from each emissions unit for a minimum of 5 years after the testing is conducted or after the data is collected. These records shall be made available for inspection by the Director of the Ohio EPA or his/her representative, upon request.

[40 CFR 63.7520], [40 CFR 63.7500(a)], [40 CFR 63.7510], [40 CFR 63.7515], [40 CFR 63.7522(j)(2)]], [40 CFR 63.7525(l)(8) and (m)], [40 CFR 63.7530(a), (b)(4)(i), (iv) through (ix), (h), and (i)], [40 CFR 63.7545(d)], [40 CFR 63, Subpart DDDDD Tables 4, 5, 7, and 8; for the Table 2 limits], [40 CFR 63.6(h)(7)(iii)], [40 CFR 63.7], [40 CFR 63.10(d)], [OAC 3745-110], and [OAC 3745-15-04(A)]

(3) Each tune-up conducted to demonstrate compliance with the requirements of Part 63 Subpart DDDDD shall include the following elements:

a. inspection of the burner(s) (and requirement to clean or replace any necessary components);

b. inspection of the flame pattern and requirement to adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications if applicable;

c. inspect the air-to-fuel ratio control system to ensure it is correctly calibrated and functioning properly;

d. optimize total emissions of CO, in correlation with any applicable NOx standards, consistent with the manufacturer's specification if applicable;

e. measure the concentration of CO (in ppm, by volume) and oxygen (in volume percent) in the effluent gas stream, at the high-fire or typical operating load, and both before and after any adjustments (measurements can be make using a portable CO analyzer);

f. maintain records of the tune-up, inspection, and any corrective actions taken; and

g. where more than one type of fuel is used, records of the type and amount of each fuel type burned over the 12 months prior to the tune-up.

Inspections may be delayed until the next scheduled shutdown; and units that produce electricity for sale may delay the inspection until the first outage, but may not exceed 36 months from the previous inspection. The frequency of tune-ups shall be based on the frequency identified in Table 3 to the subpart. An initial tune-up must be completed for an existing unit no later than 1/31/16, unless the boiler is not in operation at that time, where a tune-up must be completed within 30 days after the re-start of the boiler.

[40 CFR 63.7500(c), (d), and (e)], [40 CFR 63.7510(e), (g) and (j)], [40 CFR 63.7515(d)], [40 CFR 63.7540(a)(10) through (13)], and [40 CFR Part 63, Subpart DDDDD, Table 3]

(4) The existing boilers, each vented to the same stack and participating in an emissions averaging group are identified as:B041, B042, and B043. These boilers will be burning the same fuel and/or are in the same subcategory, as identified in 40 CFR 63.7499 and as allowed in40 CFR 63.7522(b), and shall demonstrate compliance with the applicable emission limits for PM or TSM, HCl, and/or Hg in Table 2 through emissions averaging. The boilers identified in the averaging group shall meet the following requirements and their average emissions calculated as follows:

a. for each boiler in the averaging group, the emission rate achieved during the initial compliance test (for the HAP or HAP surrogate being averaged) shall not exceed the emission level that was achieved on 1/31/13; or the control technology employed during the initial compliance test shall not be less effective for the HAP/surrogate being averaged than the control technology employed on 1/31/13;

b. initial compliance shall be demonstrated using the maximum rated heat input capacity or maximum steam generation capacity of each boiler and the results of the initial performance test or fuel analyses;

c. the averaged emissions from the boilers shall not exceed 90% of the applicable emission limit(s) identified in Table 2 of Part 63 Subpart DDDDD and the averaged emissions shall be calculated as follows:

i. Where complying with the emission limits on a heat input basis, Equation 1a (from 40 CFR 63.7522(e)(1)) shall be used to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg. The weighted average emissions times the discount factor of 1.1, shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Hm) \div \sum_{i=1}^{n} Hm$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per MMBtu of heat input.

Er = emission rate, as determined during the initial or subsequent compliance demonstrations for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit "i", in lbs of pollutant/MMBtu.

Hm = maximum rated heat input capacity of unit, "i", in MMBtu/hour.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

ii. Where complying with the emission limits on a steam generation output basis. Equation 1b (from 40 CFR 63.7522(e)(1)) shall be used to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg. The weighted average emissions times the discount factor of 1.1 shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per MMBtu of steam output.

Er = emission rate, as determined during the initial compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit "i", in lbs of pollutant/MMBtu steam output. *

So = maximum steam output capacity of unit, "i", in MMBtu/hour.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iii. Where complying with the emission limits on an electrical generation output basis, Equation 1c (from 40 CFR 63.7522(e)(1)) shall be used to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg. The weighted average emissions times the discount factor of 1.1, shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per megawatt hour (lbs/MWh).

Er = emission rate, as determined during the initial compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM, derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit "i", in lbs of pollutant/MWh. *

Eo = maximum electric generating output capacity of unit, "i", in MWh.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iv. Where the maximum rated heat input capacity of one or more steam generating boilers cannot be determined, Equation 2 (from 40 CFR 63.7522(e)(2)) shall be used in place of Equation 1a, to calculate the average weighted emissions of PM or TSM, HCl, and/or Hg based on heat input using a conversion factor to calculate the heat input per pounds of steam generated. The weighted average emissions times the discount factor of 1.1 shall not exceed the emission limitation for the same HAP/surrogate identified in Table 2 to this Subpart:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Sm \times Cf_i) \div \sum_{i=1}^{n} Sm \times Cf_i$$

Where:

Ave Weighted Emissions = average weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant per MMBtu of heat input.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM, derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for boiler "i", in lbs of pollutant/MMBtu of heat input.

Sm = maximum steam generation by boiler, "i", in lbs/hour.

Cf_i = conversion factor, calculated from the most recent compliance test, in million Btu of heat input per pounds of steam generated for unit, i.

n = number of existing boilers participating in the emissions averaging option.

1.1 = the required discount factor

d. Continuous compliance with the emission limits in Table 2 shall be demonstrated on a monthly basis, determined at the end of every month (12 times per year) using the heat input, steam generation output, or electric generation output of each boiler. The first monthly period begins on 1/31/16, and compliance is demonstrated if the monthly weighted average emissions for the existing subcategory of boilers are not more than 90% of the applicable emission limit in Table 2 to Part 63, Subpart DDDDD.

i. For each calendar month Equation 3a (from 40 CFR 63.7522(f)(1)) shall be used to calculate the monthly average-weighted emissions based on the heat input for the existing boilers participating in the emissions averaging option:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb$$

Where:

Ave Weighted Emissions = average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MMBtu of heat input, for the calendar month.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit, "i", in lbs of pollutant/MMBtu.

Hb = the actual heat input for the calendar month for unit, "i", in MMBtu.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

ii. For each calendar month Equation 3b (from 40 CFR 63.7522(f)(1)) shall be used to calculate the monthly average-weighted emissions based on steam generation output for the existing boilers participating in the emissions averaging option:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So$$

Where:

Ave Weighted Emissions = average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MMBtu of steam output, for the calendar month.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit, "i", in lbs of pollutant/MMBtu of steam output.

So = the steam output for the calendar month for unit, "i", in MMBtu.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iii. For each calendar month Equation 3c (from 40 CFR 63.7522(f)(1)) shall be used to calculate the monthly average-weighted emissions based on

electrical generation output for the existing boilers participating in the emissions averaging option:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo$$

Where:

Ave Weighted Emissions = average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MWh for the calendar month.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for unit, "i", in lbs of pollutant/MWh.

Eo = the electric generating output for the calendar month for unit, "i", in MWh.

n = number of existing boilers (units) participating in the emissions averaging option.

1.1 = the required discount factor

iv. For each calendar month where the heat input of one or more boilers cannot be determined, Equation 4 (from 40 CFR 63.7522(f)(2)) can be used in place of Equation 3a to calculate the monthly average-weighted emissions based on heat input using a conversion factor to calculate the heat input per pounds of steam generated:

$$\text{Avg.Wt.Emissions} = 1.1 \sum_{i=1}^{n} (Er \times Sa \times Cf_i) \div \sum_{i=1}^{n} (Sa \times Cf_i)$$

Where:

Ave Weighted Emissions = monthly, average-weighted emissions for PM or TSM, HCl, or Hg, in pounds of pollutant/MMBtu of heat input.

Er = emission rate, as determined during the most recent compliance demonstration for PM or TSM, HCl, or Hg, from the performance testing results (using the appropriate Methods from Table 5 to the Subpart); **or** for HCl, Hg, or TSM derived from fuel analyses results (using methods/procedures found in Table 6 and calculated according to 40 CFR 63.7530(c)) for boiler, "i", in lbs of pollutant/MMBtu.

Sa = actual steam generation for the calendar month for boiler, "i", in pounds.

Cf_i = conversion factor, as calculated during the most recent compliance test, in MMBtu of heat input per pounds of steam generated for boiler, i.

n = number of existing boilers participating in the emissions averaging option.

1.1 = the required discount factor

* If taking credit for energy conservation measures from a boiler, the emission level for that boiler may be adjusted (E_{adj}) in accordance with 40 CFR 63.7533.

[40 CFR 63.7522]

(5) No later than 180 days before the date of an intended compliance demonstration based on emissions averaging, the permittee shall submit, upon request, an implementation plan for emission averaging to the appropriate district or local office of the Ohio EPA, Division of Air Pollution Control. The implementation plan shall include the following information for the boilers in each averaging group:

a. the identification of all existing boilers in the/each averaging group;

b. the subcategory of each averaging group as identified in 40 CFR 63.7499 or 63.7522(b);

c. which of the pollutant emissions will be averaged, PM, TSM, HCl, and/or Hg;

d. for each boiler in the averaging group, either the applicable HAP emission level or the control technology installed as of 1/31/13;

e. the date on which compliance using emission averaging is to commence;

f. the process parameter (heat input or steam generated) that will be monitored for each averaging group;

g. the specific control technology or pollution prevention measure to be used for each boiler in the averaging group and the date of its installation or application; and identification of each boiler that reduces or eliminates emissions from multiple boilers through pollution prevention measures;

h. the test plan for the measurement of PM or TSM, HCl, or Hg emissions in accordance with the requirements in 40 CFR 63.7520, i.e., to be included in the site-specific test plan;

i. the operating parameters to be monitored for each control system or device consistent with 63.7500 and Table 4 and a description of how the operating limits will be determined; and

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

[40 CFR 63.7522(g)(1) and (2)] and [40 CFR 63.63.7(c)]

(6) Following the compliance date of 1/31/16, the permittee using emission averaging for any subcategory of existing boilers, shall demonstrate compliance on a continuous basis by meeting the following requirements:

a. for each calendar month, the average-weighted emissions from the boilers in the averaging group, calculated in accordance with 40 CFR 63.7522(f) and (g), must not exceed 90% of the limit in Table 2 to the Subpart, for the averaging pollutant;

b. following the first 12 months of the compliance period and for each calendar month, the rolling, 12-month, average-weighted emissions for the boilers, calculated in accordance with 40 CFR 63.7522(f)(3) and this permit, shall not exceed 90% of the limit in Table 2 to the Subpart for the averaging pollutant;

c. for each existing boiler participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack or not vented to a common stack shared with non-affected units, the opacity shall not exceed 10% opacity as a 6-minute average; and

d. for each existing boiler participating in the emissions averaging option that is equipped with a wet scrubber, the 30-day rolling average parameter values shall be maintained at or above the operating limits established during the most recent performance test; and

e. for each existing boiler participating in the emissions averaging option that is venting to a common stack containing affected units from other subcategories, the appropriate operating limits for each unit shall be maintained as specified in Table 4 to Subpart DDDDD.

Any instance where the permittee fails to comply with the continuous monitoring requirements above is a deviation from the requirements of Subpart DDDDD.

[40 CFR 63.7541]

(7) Annual performance testing shall be conducted for each pollutant (PM or TSM, HCl, or Hg) for which compliance is demonstrated through emissions averaging. Each performance test must be completed no more than 13 months following the previous performance test for each existing boiler participating in emissions averaging within the subcategory.

[40 CFR 63.7515(a) and (c)]

(8) Upon receipt of the emission averaging implementation plan, the regulatory authority (appropriate district or local office of the Ohio EPA, Division of Air Pollution Control) shall review and approve or disapprove the plan according to the following criteria:

a. the content of the plan shall include all of the information specified in paragraph 40 CFR 63.7522(g)(2), as required above; and

b. the plan shall present sufficient information to determine that compliance will be achieved and maintained.

The emission averaging implementation plan shall not be approve if it contains any of the following scenarios:

c. it does not specify that emissions averaging is to be calculated for each pollutant individually (or for which pollutant(s) emission averaging is to be considered); or it proposes averaging between emissions of different pollutants;

d. it does not include all of the information specified in paragraph 40 CFR 63.7522(g)(2), as required above; or

e. the plan includes any emission source other than existing boilers; or

f. boilers from different subcategories are included in the same averaging group.

[40 CFR 63.7522(g)(3) and (4)]

(9) Where a group of 2 or more existing boilers in different subcategories vent through a common stack, the emission limit for the stack shall be calculated using Equation 6 from 40 CFR 63.7522(j)(1), where the summation of the emission limits from Table 2 for the individual units is dividing by the summation of the heat input from each unit sharing the stack:

$$En = \sum_{i=1}^{n} = (Eli \times Hi) / \sum_{i=1}^{n} Hi$$

Where:

En = HAP emission limit, in lbs/MMBtu, ppm, or nanograms/dscm (ng/dscm)

Eli = Appropriate emission limit from Table 2 to the subpart for unit i, in lb/MMBtu, ppm, or ng/dscm

Hi = heat input form unit i, in MMBtu

[40 CFR 63.7522(h) and (j)(1)]

(10) Where a group of 2 or more existing boilers in the same subcategories vent through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, the averaging group may be treated as a single existing unit for purposes of Subpart DDDDD and may comply with the requirements of the subpart as if the group were a single unit.

[40 CFR 63.7522(h) and (i)]

(11) If using Hg CEMS to demonstrate compliance, the CEMS shall be installed, certified, operated, and maintained in accordance with Performance Specifications 6 and 12A of Part 60, Appendix B and in accordance with the quality assurance procedure 6 of 40 CFR Part 60 Appendix F. If using a sorbent trap based integrated monitor, it shall be installed and operated in accordance with Performance Specification 12B of Part 60 Appendix B. The permittee must notify the Director 1 month before starting and 1 month

before stopping the use of the Hg CEMS for compliance. Hg CEMS meeting the above and following requirements can be used for compliance with the Hg standard in place of a fuel analysis, annual performance test, and the operating limits specified in Table 4 to Subpart DDDDD:

a. The initial performance evaluation of the Hg CEMS for an existing boiler shall be completed by no later than 7/29/16 or no later than 180 days following the notification to the Director that Hg CEMS will be used for compliance in place of performance testing or fuel analysis.

b. The permittee shall determine continuous compliance with the Hg standard using CEMS in accordance with to the following procedures:

i. for each day of operation, the hourly average Hg concentration data and stack gas volumetric flow rate data must be measured and recorded;

ii. the Hg CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive minute of operations (Ohio policy), with an average recorded for each 15-minute period;

iii. data from the CEMS (excluding that collected during calibration, quality assurance, or maintenance activities, out-of-control periods, and/or CEMS breakdown) shall be reduced to 1-hour averages, computed from the four 15-minute averages;

iv. the 30-day rolling arithmetic average emission rate (in lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7, substituting the Hg concentration for the pollutant concentrations normally used in Method 19;

v. the duration of the performance test must be the maximum of 30 boiler operating days or 720 hours;

vi. at least 2 15-minute data values must be collected during any hour when the CEMS calibration, quality assurance, or maintenance activities are being performed; and

vii. the 1-hour arithmetic averages shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day (or 10-day as applicable) rolling average emissions.

[40 CFR 63.7540(a)(14)] and [40 CFR 63.7525(l)]

(12) Emission Limitation:

Visible emissions from the exhaust stack serving this emissions unit shall not exceed 10% opacity as a daily block average for dry control systems not required to install and operate PM CEMS, PM CPMS, or a bag leak detection system.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, a performance evaluation of the COMS and the results of the performance evaluation of the COMS shall be submitted to the appropriate offices as specified in 40 CFR 63.8(e)(5)(ii), and 40 CFR 63.10(e)(2)(ii), at least 15 days before the performance tests required under 40 CFR 63.7, 40 CFR 63.7510, and 40 CFR 63.7520. The COMS shall be maintained through daily calibration drift assessments, quarterly performance audits, and annual zero alignment audits Performance evaluations shall be conducted in accordance with 40 CFR 63.8(e) and Performance Specification 1, of Appendix B to Part 60; and COMS data must be reduced in accordance with 40 CFR 63.8(g)(2). The permittee shall notify both the Central Office and the appropriate District Office or local air agency of the Ohio EPA, Division of Air Pollution Control, in writing, of the date of the COMS performance evaluation at least 30 days prior to the date the performance evaluation is scheduled to begin.

[40 CFR 63.7525(c)], [40 CFR 63.8], [40 CFR 63.8(e)(5)(ii)], and [40 CFR 63.10(e)(2)(ii)],and [40 CFR Part 63, Subpart DDDDD Tables 4 #4a or #6 and 8 #1]

As defined in 40 CFR 63.2, Subpart A of Part 63:

Performance audit is defined by the Subpart as: a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation is defined by the Subpart as: the conduction of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

[40 CFR 63.2]

(13) Emission Limitations:

Chlorine input (Cl entering boiler in lbs/MMBtu); and

Mercury input (Hg entering boiler in lbs/MMBtu); or

Total Selected Metals input (TSM entering boiler in lbs/MMBtu)

Applicable Compliance Method:

For each boiler burning more than one type of fuel, an initial fuel analyses shall be conducted for each type of fuel burned in the boiler in accordance with 40 CFR 63.7521 and Table 6 to the subpart. For solid and liquid fuels an initial fuel analysis must be conducted for Cl and Hg; and for gaseous fuels, not exempted in 40 CFR 63.7510(a)(2)(i) and (ii), an initial fuel analysis must be conducted for Hg. Composited fuel samples shall be prepared during the initial performance test; and solid fuel samples shall be prepared in accordance with 40 CFR 63.7521(c) and (d) or an equivalent method. The resultant fuel analyses shall establish maximum fuel pollutant input levels, in pounds per million Btu, of Cl and Hg, and TSM where opting to comply with the TSM

standard. The maximum Cl, Hg, and/or TSM input shall be calculated in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM):

a. the maximum Cl fuel input (Cl_{input}) shall be established during the initial performance testing according to the following procedures from 40 CFR 63.7530(b)(1):

i. the fuel type or fuel mixture that has the highest content of Cl shall be determined from the fuels that are burned or will be burned in the boiler;

ii. during the performance testing for HCl, the fraction of the total heat input for each fuel type burned (Q_i) shall be determined based on the fuel mixture that has the highest content of Cl, and the average Cl concentration shall be determined for each fuel type burned (C_i);

iii. a maximum Cl input level shall be established using Equation 7 from 40 CFR 63.7530(b)(1):

$$Cl_{input} = \sum_{i=1}^{n} (C_i)(Q_i)$$

Where:

Cl_{input} = maximum amount of Cl entering the boiler from the fuels burned in pounds per million Btu.

C_i = arithmetic average concentration of Cl in fuel type "i", analyzed according to 40 CFR 63.7521, in pounds per million Btu.

Q_i = fraction of total heat input from fuel type "i", based on the mixture that has the highest content of Cl. If multiple fuel types are not burned during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n = number of different fuel types burned in the boiler for the mixture having the highest content of Cl.

b. the maximum Hg fuel input level (Hg input) shall be established during the initial performance testing according to the following procedures from 40 CFR 63.7530(b)(2):

i. the fuel type or fuel mixture that has the highest content of Hg shall be determined from all the fuels that are burned or that will be burned in the boiler;

ii. during the performance testing for Hg, the fraction of the total heat input for each fuel type burned (Q_i) shall be determined based on the mixture that has the highest content of Hg, and the average Hg concentration shall be determined for each fuel type burned (HG_i);

iii. a maximum Hg input level shall be established using Equation 8 from 40 CFR 63.7530(b)(2):

$$Hg_{input} = \sum_{i=1}^{n} (HG_i)(Q_i)$$

Where:

Hg_{input} = maximum amount of Hg entering the boiler from the fuels burned, in pounds per million Btu.

HG_i = arithmetic average concentration of Hg in fuel type "i", analyzed according to 40 CFR 63.7521, in pounds per million Btu.

Q_i = fraction of total heat input from fuel type "i", based on the mixture that has the highest Hg content. If multiple fuel types are not burned during the performance testing, it is not necessary to determine the value of this term. Insert a value of ``1" for Q_i.

n = number of different fuel types burned in the boiler for the mixture having the highest content of Hg.

c. the maximum TSM fuel input level (TSM input) shall be established during the initial performance testing according to the following procedures from 40 CFR 63.7530(b)(3):

i. the fuel type or fuel mixture that has the highest content of TSM shall be determined from all the fuels that are burned or that will be burned in the boiler;

ii. during the performance testing for TSM, the fraction of the total heat input for each fuel type burned (Q_i) shall be determined based on the mixture that has the highest content of TSM, and the average TSM concentration shall be determined for each fuel type burned (TSM_i);

iii. a maximum TSM input level shall be established using Equation 9 from 40 CFR 63.7530(b)(3):

$$TSM_{input} = \sum_{i=1}^{n} (TSM_i)(Q_i)$$

Where:

TSM_{input} = maximum amount of TSM entering the boiler from the fuels burned, in pounds per million Btu.

TSM_i = arithmetic average concentration of TSM in fuel type "i", analyzed according to 40 CFR 63.7521, in pounds per million Btu.

Q_i = fraction of total heat input from fuel type "i", based on the mixture that has the highest TSM content. If multiple fuel types are not burned during the performance testing, it is not necessary to determine the value of this term. Insert a value of ``1'' for Q_i.

n = number of different fuel types burned in the boiler for the mixture having the highest content of TSM.

[40 CFR 7510(a)(2)], [40 CFR 63.7530(b)(1),(2), and (3)], and [40 CFR Part 63, Subpart DDDDD Table 6]

(14) Emission Limitations:

2.2E-02 lb HCl/MMBtu of actual heat input; and

5.7E-06 lb Hg/MMBtu of actual heat input; or

5.3E-05 lb of TSM/MMBtu of actual heat input

Applicable Compliance Method:

For each pollutant that the permittee elects to demonstrate compliance through fuel analyses, monthly (or quarterly where meeting the requirements of 40 CFR 63.7515(e)) fuel analyses shall be conducted according to the procedures found in 40 CFR 63.7521, Table 6 to the subpart, and the site-specific fuel analyses plan. Monthly fuel samples shall be collected at a minimum of 14 calendar days from the sample collected for analyses in the previous month. Certified laboratory fuel analyses testing results (which can be submitted by the supplier), demonstrating that sufficient data has been collected to comply with 40 CFR 63.7530(c) for a 90th percentile confidence level of the subject pollutant concentration, shall be used to calculate the subject pollutant's emission rate as required per 40 CFR 63.7530(c).The maximum Cl, Hg, and TSM (if opting to comply with TSM) input shall be calculated (as above) in accordance with 40 CFR 63.7530(b) using Equations 7 (for Cl), 8 (for Hg), and 9 (for TSM); and the HCl, Hg, and TSM emission rates shall be calculated in accordance with 40 CFR 63.7530(c) using Equations 15 (for 90th percentile confidence level pollutant concentration), 16 (for HCl), 17 (for Hg) and 18 (for TSM). The data, calculated to pounds of pollutant per MMBtu per Table 6, shall be reduced to 12-month rolling averages at the end of 12 months. The rolling 12-month average emissions, established through the monthly fuel analyses, shall be maintained at or below the applicable emission limit for HCl, Hg, or TSM as identified in Table 2 to Subpart DDDDD. A fuel analysis must be conducted before burning a new fuel not previously tested. The following procedures and calculations shall be used to demonstrate compliance with an applicable limit through fuel analysis:

a. if burning more than one fuel type, the permittee shall determine the fuel or fuel mixture that would result in the maximum emission rates of each/the pollutant (which could mean multiple fuels);

b. the 90th percentile confidence level, of the pollutant concentration of the composite samples of each fuel type analyzed, shall be determined using the

one-sided z-statistic test described in Equation 15 from 40 CFR 63.7530(c)(2) as follows:

P_{90} = mean + (SD x t)

Where:

P_{90} = 90th percentile confidence level pollutant concentration, in pounds per million Btu

mean = arithmetic average of the pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521, in pounds per million Btu

SD = standard deviation of the pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521, in pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples.

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

c. in order to demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate for the boiler shall be calculated to be less than the applicable emission limit using Equation 16 from 40 CFR 63.7530(c)(3) as follows:

$$HCl = \sum_{i=1}^{n} [(C_{i90})(Q_i)(1.028)]$$

Where:

HCl = HCl emission rate from the boiler in pounds per million Btu.

C_{i90} = 90th percentile confidence level concentration of Cl in fuel type “i” in pounds per million Btu, as calculated according to Equation 15 above

Q_i = fraction of total heat input from fuel type “i” based on the fuel mixture that has the highest content of Cl. If only one fuel type is used, it is not necessary to determine the value of Q_i and it will equal ”1".

n = number of different fuel types burned in the boiler for the mixture having the highest content of Cl.

1.028 = molecular weight ratio of HCl to Cl

d. in order to demonstrate compliance with the applicable emission limit for Hg, the Hg emission rate for the boiler shall be calculated to be less than the applicable emission limit using Equation 17 from 40 CFR 63.7530(c)(4) as follows:

$$Hg = \sum^{n} [(Hg_{i90})(Q_i)]$$

i=1

Where:

Hg = Hg emission rate from the boiler in pounds per million Btu.

Hg_{i90} = 90th percentile confidence level concentration of Hg in fuel type "i" in pounds per million Btu, as calculated according to Equation 15 above.

Q_i = fraction of total heat input from fuel type "i", based on the fuel mixture that has the highest Hg content. If only one fuel type is used, it is not necessary to determine the value of Q_i and it will equal "1".

n = number of different fuel types burned in the boiler for the mixture having the highest content of Hg.

e. in order to demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate for the boiler shall be calculated to be less than the applicable emission limit using Equation 18 from 40 CFR 63.7530(c)(5) as follows:

$$TSM = \sum_{i=1}^{n} [(TSM_{i90})(Q_i)]$$

Where:

TSM = TSM emission rate from the boiler in pounds per million Btu.

TSM_{i90} = 90th percentile confidence level concentration of TSM in fuel type "i" in pounds per million Btu, as calculated according to Equation 15 above.

Q_i = fraction of total heat input from fuel type "i", based on the fuel mixture that has the highest TSM content. If only one fuel type is used, it is not necessary to determine the value of Q_i and it will equal "1".

n = number of different fuel types burned in the boiler for the mixture having the highest content of TSM.

[40 CFR 63.7505(c)], [40 CFR 63.7510(b)], [40 CFR 63.7515(e)], [40 CFR 63.7530(c)], [40 CFR 63.7505(c)], and [40 CFR Part 63, Subpart DDDDD Table 6]

(15) The permittee shall provide, or have provided, performance testing materials and conditions favorable for stack testing. Air pollution control systems shall be constructed such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and the stack or duct shall be free of cyclonic flow during performance testing. The following conditions shall be provided:

a. sampling ports adequate for the appropriate testing methods;

b. safe sampling platform(s);

c. safe access to sampling platform(s);

d. utilities for sampling and testing equipment; and

e. any other facilities that the Ohio EPA, Division of Air Pollution Control representative deems necessary for safe and adequate testing of each emissions unit.

[40 CFR 63.7(d)]

Fuel Sampling

(16) Fuel analyses samples collected in order to demonstrate compliance with 40 CFR Part 63, Subpart DDDDD shall meet the sampling procedures found in 40 CFR 63.7521 and the testing shall be conducted according to the methods and procedures found in Table 6 to the Subpart and the site-specific fuel monitoring plan, for Cl, Hg, or TSM (if choosing to comply with the alternative TSM standard). Monthly records of the types and amounts of each fuel burned in the boiler shall be maintained as required by 40 CFR 63.7540(a). If the fuel supplier is providing the fuel analyses, they must use the methods and procedures found in Table 6 to Part 63 Subpart DDDDD.

[40 CFR 63.7510(a)], [40 CFR 63.7521], [40 CFR 63.7530(c)], [40 CFR 63.7540(a)(2)], and [40 CFR Part 63, Subpart DDDDD Table 6 and 8]

(17) Fuel samples used to meet the fuel sampling analyses requirements shall be collected as follows:

a. When sampling during stack testing, three composite fuel samples shall be collected at one hour intervals during the testing period or fuel samples shall be obtained in accordance to the methods identified in Table 6 to the subpart. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month. An automated sampling mechanism shall provide representative composite fuel samples.

b. If sampling from a belt (or screw) feeder, the belt shall be stopped and a 6-inch wide sample shall be collected from the full cross-section of the belt, to obtain a minimum two pounds of sample. Both fines and coarse material shall be included in the full cross- section sample. The samples shall be retained in a clean plastic bag until preparations for testing.

c. If sampling from a fuel pile or truck, for each composite sample, a minimum of five sampling locations shall be selected, uniformly spaced over the surface of the pile. At each sampling site, the sample shall be withdrawn by digging, with a clean shovel, into the pile to a depth of approximately 18 inches. Both fines and coarse material shall be collected in the recovered samples. The samples shall be retained in a clean plastic bag until preparations for testing.

d. Each composite sample shall be prepared according to the procedures:

i. thoroughly mix and pour the entire composite sample over a clean plastic sheet;

ii. break larger pieces (e.g. larger than 3 inches) into smaller sizes;

iii. make a pie shape with the entire composite sample and subdivide it into four equal parts;

iv. separate one of the quarter samples as the first subset;

v. if this subset is too large for grinding, repeat the procedure in paragraph iii above, start over with the quarter sample and obtain a one-quarter subset from this sample;

vi. grind the sample in a mill; and

vii. make a pie shape with the entire composite sample and subdivide it into four equal parts to obtain a one-quarter sub-sample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

The concentration of pollutants in the fuel (Cl, Hg, and/or TSM) shall be determined in pounds per million Btu, for each composite sample for each fuel type and according to the procedures in Table 6 to this Subpart, for use in Equations 7, 8, and 9 of 40 CFR 63.7530(b).

[40 CFR 63.7521(c), (d), and (e)]

g) Miscellaneous Requirements

(1) None.