Notice

This Engineering Guide was recently converted to a PC format and it has not been proof read by our engineering staff. Therefore, it is subject to change at a later date.

Ohio EPA

Division of Air Pollution Control

Engineering Section

Engineering Guide #43

Question:

What special terms and conditions (STCs) are commonly used throughout the State in permits to operate and variances? Should the use of certain STCs by the field office personnel be mandatory for certain types or sizes of air contaminant sources? (These questions were originated by the Engineering Section of the Division of Air Pollution Control.)

Answer:

This engineering guide contains 9 STCs which address the following:

1. applicable rules;
2. allowable mass emission limitation(s) and/or control requirements;
3. stack test requirements for particulate emissions;
4. derating of fuel burning equipment;
5. continuous opacity monitoring, recording and reporting;
6. equivalent visible emission limitation(s);
7. ambient air monitoring for particulate matter less than ten microns in diameter (PM_{10});
8. coal quality specifications; and
9. source-specific STCs for:
   - A. major coating lines which are subject to OAC rule 3745-21-09,
   - B. coal-fired boilers,
   - C. asphalt batch plants, and
   - G. infectious waste incinerators.

These STCs have been identified as the most commonly used STCs. Additional STCs will be added to this guide as the need arises.

The wording of each STC has been carefully reviewed from both a technical as well as a legal standpoint; therefore, the wording used in these STCs should be used in permits to operate or variances whenever such STCs are necessary or

desirable.

The Division of Air Pollution Control believes it is reasonable and necessary to require that certain STCs, if applicable, be included in the permit to operate or variance for any source which has an uncontrolled emission rate equal to or greater than 25 tons/year of any air contaminant. Therefore, those STCs which are contained in this guide should, if applicable, be used by the field office personnel in the permit to operate or variance for any such source. The use of these STCs for any source which has an uncontrolled emission rate less than 25 tons/year of any air contaminant is optional and is left to the discretion of the field office personnel.

The Ohio EPA's air permit system can be a very important enforcement tool. If the permits to operate and variances are written properly, they can be an effective mechanism for requiring the owner/operator of an air contaminant source to monitor compliance with applicable emission limitations and/or ambient air quality standards and to report the results to the Ohio EPA. Obviously, the greater the emissions from a source, the more important it is for such monitoring--especially if the source is located in or impacts an existing nonattainment area.

CM/JO/tkb

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2/20/86, STC 9(B) revised 6/01/88
and 4/18/89, revised 7/25/91,
STC 9B revised 2/07/92 and 10/7/93, revised 3/2/95)

SPECIAL TERMS AND CONDITIONS

1. Applicable Rules:

(A) For sources which are not fugitive dust sources:

The following rules of the Ohio Administrative Code establish the applicable emission limitations and/or control requirements for this source:

[applicable rule(s)].

(This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

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EXAMPLES:

Type of Source	Source Number	Applicable Rules
conveyorized degreaser	L___	3745-21-09(O)(4)
lime kiln	P___	3745-17-07(A)-(D) 3745-17-11 3745-18-__

(B) For fugitive dust sources:

The specific operation(s), equipment and/or property which constitute the air contaminant source and which are covered by this permit are listed in the following table along with the applicable rule(s) of the Ohio Administrative Code:

Operation(s), Equipment and/or Property	Applicable Rule(s) (OAC 3745-)

(This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

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EXAMPLES:

Concrete Batching Operation (with pneumatic loading of cement to silo):

Operation(s), Equipment and/or Property	Applicable Rule(s) (OAC 3745-)
transfer of sand and aggregate to elevated bins	17-08(B)(6)
cement silo vent	17-08(B)(3)(a), (B)(3)(b)
weigh hopper loading of cement, sand and aggregate	17-08(B)(3)(a)
loading of transit-mix truck	17-08(B)(3)(a)

Cupola:

Operation(s), Equipment and/or Property	Applicable Rule(s) (OAC 3745-)
cupola furnace charging	17-08(B)(3)(a), (B)(3)(b)
cupola furnace tapping	17-08(B)(3)(a), (B)(3)(b)

2. Allowable mass emission limitation(s) and/or control requirements:

(A) For sources which are not fugitive dust sources:

The mass emissions from this source shall not exceed the following:

[allowable mass emission limitation(s)] .

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EXAMPLES:

Type of Source	Source Number	Allowable Mass Emission Limitation(s)
municipal refuse incinerator	N___	0.10 pound of particulate emissions per 100 pounds of refuse charged
lime kiln	P___	48.7 pounds of particulate emissions per hour 25.0 pounds of sulfur dioxide emissions per ton of product
loading rack at a bulk gasoline terminal	J___	0.67 pound of VOC emissions per 1000 gallons of gasoline loaded or 80.0 milligrams of VOC emissions per liter of gasoline loaded

(B) For fugitive dust sources:

The allowable mass emission limitation(s) and/or control requirements for the operation(s), equipment and/or property identified above are specified in the following table:

Operation(s), Equipment and/or Property	Allowable Mass Emission Limitation(s) and/or Control Requirements

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EXAMPLES: (The following examples are presented only to illustrate format and content of STCs for fugitive dust sources. They should not be used verbatim for STCs in permit/variances without taking into account the site-specific differences that may exist in the processes, types of emission, and RACM determinations.)

Concrete Batching Plant (with pneumatic loading of cement to silo):

Operation(s), Equipment and/or Property	Allowable Mass Emission Limitation(s) and/or Control Requirements
transfer of sand and aggregate to elevated bins	the drop height of the front-end bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the conveyor loading area the sand and aggregate loaded into the elevated bins shall have a moisture content sufficient to minimize or eliminate visible emissions of fugitive dust from the conveyor and transfer point to bins
cement silo vent	the silo vent shall be adequately enclosed and vented to the fabric filter; the enclosure shall be sufficient to eliminate visible emissions of fugitive dust at the point of capture the fabric filter shall achieve an outlet emission rate of not greater than .030 grain of particulate emissions rate of not standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent

weigh hopper loading of cement, sand and aggregate	the weigh hopper vent shall be adequately enclosed and vented to the cement silo; the enclosure shall be sufficient to eliminate visible emissions of fugitive dust at the point of capture
loading of transit-mix truck	a charging boot shall be used around the hopper discharge area and transit-mix truck opening; the charging boot shall have a collection efficiency sufficient to minimize or eliminate visible emissions of fugitive dust at the point of capture to the extent possible with good engineering design

Cupola:

Operation(s), Equipment and/or Property	Allowable Mass Emission Limitation(s) and/or Control Requirements
cupola furnace charging	a continuous draft shall be maintained through the charge door during charging sufficient to minimize or eliminate visible emissions of fugitive dust to the extent possible with good engineering design
	the wet scrubber shall achieve an outlet emission rate of not greater than (insert grain loading which ensures compliance with both 17-08 for the tapping and casting emissions and 17-11 for the furnace melting emissions) grain of particulate emissions

		per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent
	cupola furnace tapping	the tapping hood shall have a collection efficiency sufficient to minimize or eliminate visible emissions of fugitive dust at the point of capture to the extent possible with good engineering design; however, at no time shall the opacity of such emissions exceed 10 percent
		the wet scrubber shall achieve an outlet emission rate of not greater than (<u>insert grain loading which ensures compliance with both 17-08 for the tapping and casting emissions and 17-11 for the furnace melting emissions)</u> grains of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent

3. Stack test requirements for particulate emissions:

[EITHER Once during each calendar year, beginning with calendar year 199_, OR Within 6 months prior to the expiration of this permit], this facility shall conduct, or have conducted, an emission test(s) for this source in order to demonstrate compliance with the allowable mass emission rate for particulates. [OPTIONAL Such test(s) shall include a determination of the uncontrolled mass rate of particulate emissions.] The emission test(s) shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-17-03.

Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the Ohio EPA field office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source 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 field office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA field office shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the emission test(s) shall be submitted to the Ohio EPA field office within 30 days following completion of the test(s).

4. Derating of fuel burning equipment:

Pursuant to paragraph (B)(3) of OAC rule 3745-17-10, the total heat input for [source number(s)] is derated from _____ x 10^6 Btu/hr to _____ x 10^6 Btu/hr. (The derated total heat input of _____ x 10^6 Btu/hr corresponds to a steam load of _____ lbs/hr.) Using the derated total heat input, the allowable particulate emission rate for [source number(s)], from Figure I (Curve P-1) of OAC rule 3745-17-10, is _____ lbs/10^6 Btu actual heat input.

Compliance with the derated heat input shall be monitored by continuously recording the steam flow rate from [source number(s)]. At no time shall the steam flow rate from [source number(s)] exceed _____ lbs/hr (as an average over any one-hour period). If for any reason the steam flow rate from [source number(s)] exceeds _____ lbs/hr, the following information shall be reported to the Ohio EPA field office within 5 business days after the exceedance:

(a) the date of the exceedance;

(b) the time interval over which the exceedance occurred;

(c) the value of the exceedance;

(d) the cause(s) of the exceedance;

(e) the corrective action which has been or will be taken

to prevent similar exceedances in the future; and

(f) a copy of the steam chart which shows the exceedance.

Copies of all steam flow rate charts shall be maintained for a period of 2 years, and shall be available for review during normal business hours by personnel from the Ohio EPA field office.

5. Continuous Opacity Monitoring, Recording and Reporting:

(A) For the installation of new continuous opacity monitoring and recording equipment (either for a source which has no existing equipment or for a source which must replace inadequate existing equipment):

Within 120 days of the effective date of this permit, this facility shall install, operate, and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this source. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13. In addition to demonstrating compliance with the requirements specified in 40 CFR Part 60.13, any new continuous opacity monitoring system shall be designed so that a performance audit of the system's operation can be conducted pursuant to the procedures specified in U.S. EPA document 340/1-83/010, "Performance Audit Procedures for Opacity Monitors."

Within 30 days after the installation of the continuous monitoring and recording equipment, this facility shall conduct a performance specification test of such equipment pursuant to Section 3704.03(I) of the Ohio Revised Code and 40 CFR Part 60, Appendix B, Performance Specification Test 1. Personnel from the Ohio EPA field office shall be permitted to witness the performance specification test, and 2 copies of the test results shall be submitted to the Ohio EPA field office within 30 days after the test is completed.

Pursuant to 40 CFR Parts 60.7 and 60.13(h), this facility shall submit reports on a quarterly basis to the Ohio EPA field office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07 or any limitations specified in the terms and conditions of this permit. These quarterly excess emission reports shall be submitted by February 1, May 1, August 1 and November 1 of each year and shall address the data obtained during the previous calendar quarters.

(B) <u>For the operation of existing opacity monitoring and recording equipment which are capable of meeting the requirements of 40 CFR Part 60.13</u>.

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

[<u>OPTIONAL PARAGRAPH</u> - Within 60 days of the effective date of this permit, this facility shall conduct a performance specification test of such equipment pursuant to Section 3704.03(I) of the Ohio Revised Code and 40 CFR Part 60, Appendix B, Performance Specification Test 1. Personnel from the Ohio EPA field

office shall be permitted to witness the performance specification test, and 2 copies of the test results

shall be submitted to the Ohio EPA field office within 30 days after the test is completed.]

Pursuant to 40 CFR Parts 60.7 and 60.13(h), this facility shall submit reports on a quarterly basis to the Ohio EPA field office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07 or any limitations specified in the terms and conditions of this permit. These quarterly excess emission reports shall be submitted by February 1, May 1, August 1, and November 1 of each year and shall address the data obtained during the previous calendar quarters.

(C) <u>For the upgrading (and replacement, if necessary) of inadequate existing opacity monitoring and recording equipment to meet the requirements of 40 CFR Part 60.13</u>. Within 90 days of the effective date of this permit, this facility shall upgrade and modify its existing equipment to continuously monitor and record the opacity of the particulate emissions from this source. The modifications and upgrading shall be performed in such a manner as to cause the continuous monitoring and recording equipment to comply with the requirements specified in 40 CFR Part 60.13.

Within 30 days after the upgrading of the continuous monitoring and recording equipment is complete, this

facility shall conduct a performance specification test of such equipment pursuant to Section 3704.03(I) of the Ohio Revised Code and 40 CFR Part 60, Appendix B, Performance Specification Test 1. Personnel from the Ohio EPA field office shall be permitted to witness the performance specification test, and 2 copies of the test results shall be submitted to the Ohio EPA field office within 30 days after the test is completed.

In the event the performance test demonstrates that the upgraded continuous monitoring and recording equipment is unable to comply with the requirements specified in 40 CFR Part 60.13, this facility shall, within 60 days after the test is completed, submit a plan and schedule to install and performance test new continuous monitoring and recording equipment which are capable of complying with the applicable requirements specified in 40 CFR Part 60.13. In addition to demonstrating compliance with the applicable requirements specified in 40 CFR Part 60.13, any new continuous opacity monitoring system shall be designed so that a performance audit of the system's operation can be conducted pursuant to the procedures specified in U.S. EPA document 340/1-83/010, "Performance Audit Procedures for Opacity Monitors."

Following the completion of an acceptable performance

specification test of either the upgraded or new opacity monitoring and recording equipment, and pursuant to 40

CFR Parts 60.7 and 60.13(h), this facility shall submit reports on a quarterly basis to the Ohio EPA field office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07 or any limitations specified in the terms and conditions of this permit. These quarterly excess emission reports shall be submitted by February 1, May 1, August 1, and November 1 of each year and shall address the data obtained during the previous calendar quarters.

6. Equivalent Visible Emission Limitation(s):

Pursuant to the provisions of paragraph (F) of OAC rule 3745-17-07, this facility is hereby granted the following equivalent visible emission limitation(s) for this source in lieu of the visible emission limitation(s) required under (paragraph A, paragraph B, or paragraphs A and B) of said rule:

Option 1:

Except as otherwise provided in paragraphs (B) to (E) of OAC rule 3745-17-07, this facility shall not cause or allow the discharge into the ambient air from any stack associated with this source any air contaminant of a shade or density greater than (number) percent opacity.

Option 2:

Except as otherwise provided in paragraphs (C) to (E) of OAC rule 3745-17-07, this facility may cause or allow the discharge into the ambient air from any stack associated with this source for not more than six consecutive minutes in any 60 minutes any air contaminant of a shade or density not greater than (number) percent opacity.

Option 3:

(1) Except as otherwise specified in paragraphs (C) to (E) of OAC rule 3745-17-07 and subparagraph (2) below, this facility shall not cause or allow the discharge

into the ambient air from any stack associated with this source any air contaminant of a shade or density greater than (number) percent opacity.

(2) This facility may cause or allow the discharge into the ambient air from any stack associated with this source for not more than six consecutive minutes in any 60 minutes any air contaminant of a shade or density not greater than (number) percent opacity.

For the purpose of determining compliance with the equivalent visible emission limitation(s) specified above, visible emissions shall be determined according to the test methods and procedures prescribed in paragraph (B)(1) of OAC rule 3745-17-03.

7. Ambient Air Monitoring for Particulate Matter Less Than Ten Micronsin Diameter (PM_{10}):

(A) For sources required to upgrade an existing ambient monitoring network to satisfy State and federal monitoring requirements:

This facility shall reevaluate the number and location of existing monitoring sites based on accepted modeling practice to adequately characterize the predicted areas of maximum impact of the particulate plume on air quality, as well as background concentration determination.

Determination of the revised and additional particulate sampling locations shall be coordinated with, and subject to the prior approval of, the Ohio EPA. Within 45 days after the effective date of this permit, this facility shall submit a plan describing the proposed revised network. This plan shall provide documentation detailing the number of samplers, location selection criteria and reasoning, and the modeling information. Pending approval of the revised sampling network plan, operation of the present (number) site network shall be continued as an interim particulate monitoring requirement.

Following approval of the PM_{10} sampling network plan, 60 days will be allowed to correct any existing citing deficiencies, relocate any samplers, and/or locate any additional samplers in accordance with the plan's requirements. All PM_{10} samplers shall be sited and located in accordance with the requirements of 40 CFR, Part 58.

The network shall be equipped with PM_{10} samplers meeting the reference methods specified in 40 CFR, Part 53 with the additional requirement that each instrument shall be equipped with a continuous flow meter (recording transducer), unless the instrument uses volumetric flow control.

This facility shall operate one site, specified by Ohio EPA, on an (every day, every-other-day) schedule with the other sites run on the same schedule as the Ohio air sampling network (one day in six) and in accordance with the following requirements:

(a) The operating procedures identified in 40 CFR, Parts 50 and 58 and the "Quality Assurance Handbook for Air Pollution Measurement Systems" Volume I - Principles (EPA-600/9-76-005) and Volume II Ambient Air Specific Methods (EPA-600/4-77-027a) shall be followed.

(b) The flow rate of each instrument shall be calibrated after every 500 hours of operation and after any instance of major repair or maintenance.

(c) An operator's logbook shall be maintained for each site location with a format as specified in guidance provided by the Ohio EPA.

This facility shall meet the quality assurance activities specified in 40 CFR 58 Appendix B except that at least (number) colocated sites will be maintained, one of which shall be at the site with the highest expected 24-hour pollutant concentration. Independent audit results (accuracy) and precision results must be submitted quarterly to the Technical Services Section of the Ohio EPA, Division of Air Pollution Control in Columbus, and the Ohio EPA District Office or Local Air Agency within 45 days after the end of each calendar quarter, beginning with the (number) quarter of (year). Equipment citing and performance specifications must be in accordance with "Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)," EPA-450/4-80-012.

Personnel from the Technical Services Section, Ohio EPA District Office, and Local Air Agency personnel shall be provided with access to each site location. The site operator and/or supervisor shall accompany the Technical Services Section, Ohio EPA District Office, and/or Local Air Agency personnel on any site inspection or audit,

and respond to inquiries regarding instrument operations and maintenance.

Appropriate corrective actions must be taken by the facility following the identification of any problem by the independent auditor, or personnel from Technical Services Section, Ohio EPA District Office or Local Air Agency.

All air quality measurement data shall be reported to the Technical Services Section of the Ohio EPA, Division of Air Pollution Control in Columbus, within 18 days after the end of each calendar quarter, beginning with the (number) quarter of (year). All such data shall be submitted on magnetic tape in Aerometric Information Retrieval System (AIRS) format in a manner compatible for direct entry into the Ohio EPA Ambient Air Quality Data Handling System.

This facility shall continue to operate the PM_{10} ambient monitoring network as described in this permit condition through the end of calendar year (year). The Director may extend the terms of this monitoring requirement. In determining the need for such an extension, the Director shall consider the concentrations measured by the monitors, the trends in air quality concentrations, and the value of the air quality data in fulfilling the

goals and requirements of the federal Clean Air Act and Chapter 3704 of the Ohio Revised Code.

(B) For sources required to establish a new ambient air monitoring network:

This facility shall establish and operate an ambient PM_{10} monitoring network in the vicinity of the plant in (location). The number and location of monitoring sites shall be based on accepted modeling practice and shall adequately monitor areas of maximum impact of the particulate emissions and the background concentration. Determination of the particulate sampling locations shall be coordinated with, and subject to the prior approval of, the Ohio EPA. Within 45 days after the effective date of this permit, this facility shall submit a plan describing the proposed network. This plan shall provide documentation detailing the criteria and reasoning for the number and location of monitoring sites, along with the modeling information.

Following approval of the PM_{10} sampling network plan, 60 days will be allowed to locate the samplers in accordance with the plan. All samplers shall be sited and located in accordance with the requirements of 40 CFR, Part 58 and any subsequent amendments.

The network shall be equipped with PM_{10} samplers meeting

the reference methods specified in 40 CFR, Parts 50 and 53 with the additional requirement that each instrument shall be equipped with a continuous flow meter (recording transducer), unless the instrument uses volumetric flow control.

This facility shall operate one site, specified by Ohio EPA, on an (every day, every-other day) schedule with the other sites run on the same schedule as the Ohio air sampling network (one day in six) and in accordance with the following requirements:

(a) The operating procedures identified in 40 CFR, Parts 50 and 58 and the "Quality Assurance Handbook for Air Pollution Measurement Systems" Volume I - Principles (EPA-600/9-76-005) and Volume II - Ambient Air Specific Methods (EPA-600/4-77-027a) shall be followed.

(b) The flow rate of each instrument shall be calibrated after every 500 hours of operation and after any instance of major repair or maintenance.

(c) An operator's logbook shall be maintained for each site location with a format as specified in guidance provided by the Ohio EPA.

This facility shall meet the quality assurance

activities specified in 40 CFR, Part 58, Appendix B except that at least (number) colocated sites shall be maintained, one of which shall be at the site with the highest expected 24-hour pollutant concentration. Independent audit (accuracy) results and precision results must be submitted quarterly to the Technical Services Section of the Ohio EPA, Division of Air Pollution Control in Columbus, and the Ohio EPA District Office or Local Air Agency within 45 days after the end of each calendar quarter, beginning with the (number) quarter of (year). Equipment citing and performance specifications must be in accordance with "Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)," (EPA-450/4-80-012).

Personnel from the Technical Services Section, Ohio EPA District Office, and Local Air Agency shall be provided with access to each site location. The site operator and/or supervisor shall accompany the Technical Services Section, Ohio EPA District Office, and/or Local Air Agency personnel on any site inspection or audit and respond to inquiries regarding instrument operations and maintenance.

Appropriate corrective actions must be taken by the facility following the identification of any problem by the independent auditor, or personnel from the Technical

Services Section, Ohio EPA District Office, and/or Local Air Agency.

All air quality measurement data shall be reported to the Technical Services Section of the Ohio EPA, Division of Air Pollution Control in Columbus, within 18 days after the end of each calendar quarter, beginning with the (number) quarter of (year). All such data shall be submitted on magnetic tape in Aerometric Information Retrieval System (AIRS) format in a manner compatible for direct entry into the Ohio EPA Ambient Air Quality Data Handling System.

This facility shall continue to operate the PM_{10} ambient monitoring network as described in the permit condition through the end of calendar year (year). The Director may extend the terms of this monitoring requirement. In determining the need for such an extension, the Director shall consider the concentrations measured by the monitors, the trends in air quality concentrations, and the value of the air quality data in fulfilling the goals and requirements of the federal Clean Air Act and Chapter 3704 of the Ohio Revised Code.

(C) For sources required to operate an existing ambient monitoring network which satisfies State/federal monitoring requirements:

This facility shall continue operating an ambient PM_{10} monitoring network in the vicinity of its plant in (location), consisting of a minimum of (number) sites. One site, specified by Ohio EPA, shall operate on an (every-day, every-other-day) with the other sites run on the same schedule as the Ohio air sampling network (one day in six) in accordance with the following requirements:

(a) The operating procedures identified in 40 CFR, Parts 50 and 58 and the "Quality Assurance Handbook for Air Pollution Measurement Systems" Volume I - Principles (EPA-600/9-76-005) and Volume II - Ambient Air Specific Methods (EPA-600/4-77-027A) shall be followed.

(b) The flow rate of each instrument shall be calibrated after every 500 hours of operation and after any instance of major repair or maintenance.

(c) An operator's logbook shall be maintained for each site location with a format and content as specified in guidance provided by the Ohio EPA.

This facility shall meet the quality assurance activities specified in 40 CFR 58 Appendix B except that at least (number) colocated sites shall be maintained,

one of which will be at the site with the highest expected 24-hour pollutant concentration. Independent audit (accuracy) results and precision results must be submitted quarterly to the Technical Services Section of the Ohio EPA, Division of Air Pollution Control in Columbus, and the Ohio EPA District Office or Local Air Agency personnel, within 45 days after the end of each calendar quarter, beginning with the (number) quarter of (year). Equipment citing and performance specifications must be in accordance with "Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)," EPA-450/4-80-012.

Personnel from the Technical Services Section, Ohio EPA District Office, and Local Air Agency shall be provided with access to each site location. The site operator and/or supervisor shall accompany the Technical Services Section, Ohio EPA District Office, and/or Local Air Agency personnel on any site inspection or audit and respond to inquiries regarding instrument operations and maintenance.

Appropriate corrective actions must be taken by the facility following the identification of any problem by the independent auditor, or personnel from the Technical Services Section, Ohio EPA District Office, and/or Local Air Agency.

All air quality measurement data shall be reported to the Technical Services Section of the Ohio EPA, Division of Air Pollution Control in Columbus, within 18 days after the end of each calendar quarter, beginning with the (number) quarter of (year). All such data shall be submitted on magnetic tape in Aerometric Information Retrieval System (AIRS) format in a manner compatible for direct entry into the Ohio EPA Ambient Air Quality Data Handling System.

This facility shall continue to operate the PM_{10} ambient monitoring network as described in the permit condition through the end of calendar year (year). The Director may extend the terms of this monitoring requirement. In determining the need for such an extension, the Director shall consider the concentrations measured by the monitors, the trends in air quality concentrations, and the value of the air quality data in fulfilling the goals and requirements of the federal Clean Air Act and Chapter 3704 of the Ohio Revised Code.

8. Coal Quality Specifications:

The quality of the coal burned in this source shall meet the following specifications on an ("as-burned" or "as-received"), wet basis:

1. less than (number) percent ash;
2. a sulfur content which is sufficient to comply with the allowable SO_2 emission limitation of (number) pounds $SO_2/10^6$ Btu actual heat input; and
3. greater than (number) Btu/pound of coal.

Compliance with the above-mentioned specifications for ash content, sulfur content and heat content shall be determined by using the (basis for the compliance determination).

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Examples of the "basis for the compliance determination":

1. analytical results provided by the coal supplier for each shipment of coal
2. analytical results for the composite sample of coal collected during each calendar month
3. weighted, arithmetic average of the analytical results provided by the coal supplier for all shipments of coal during each calendar month
4. analytical results for the composite sample of coal collected during each calendar day
5. the 30-day rolling, weighted average of the analytical results for the daily composite samples of coal

collected during any period of 30 consecutive calendar days

Normally, the same basis should be used for ash content, sulfur content and heat content. In certain cases, however, the basis for the ash content may be different from the basis for the sulfur content and heat content. In such cases, the second paragraph of the Special Terms and Conditions (STCs) should be revised to include two similar sentences, one for ash content and another for sulfur content and heat content. The basis for the sulfur content and heat content should always be the same since both parameters are used to calculate the sulfur emission rate in pounds $SO_2/10^6$ Btu actual heat input. <u>The basis used in this STC must correspond to the requirements specified for the source for the sampling and analysis of the coal.</u> (See STC 9(b).)

9. Source-Specific STCs:

A. Major coating lines which are subject to OAC rule 3745-21-09

B. Coal-fired boilers

C. Asphalt batch plants

D. Storage vessels (reserved)

E. Perchloroethylene dry cleaning facilities (reserved)

F. Petroleum dry cleaning facilities (reserved)

G. Hospital waste incinerators

H. Landfills (reserved)

A. STCs For Major Coating Lines Which Are Subject To OAC Rule 3745-21-09

1. OAC rule 3745-21-09(__) establishes the applicable VOC emission control requirements for this source. (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

2. OAC rule 3745-21-09(__) establishes the applicable VOC emission limitation for this source. (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

3. The VOC contents of the coatings employed in this source shall not exceed ___ pounds of VOC per gallon of coating, excluding water.

4. The VOC emissions from this source shall not exceed ___ pounds of VOC per gallon of coating, excluding water. This facility shall continue to properly operate and maintain the existing (catalytic or thermal) incinerator for this source to ensure compliance with the allowable VOC emission rate.

5. This facility shall maintain for this source a VOC capture efficiency which is at least ___% by weight and a control efficiency (i.e., destruction or removal efficiency) which is at least ___% by weight.

6. This facility shall maintain monthly records which list the following information for each surface coating or ink employed in this source:

   (a) the company identification of the surface coating;
   (b) the number of gallons employed;
   (c) the VOC content, in pounds of VOC per gallon of coating;
   (d) the VOC content, in pounds of VOC per gallon of coating, excluding water;
   (e) the water content, in percent by volume; and
   (f) the nonvolatile (solids) content, in percent by volume.

OPTIONAL PARAGRAPH FOR EMISSIONS DATA

(THE SUBPARAGRAPHS SHOULD BE USED AS APPROPRIATE.)

In addition, this facility shall maintain records of the following emissions information for this source:

(g) the daily, volume-weighted average VOC emission rate for all coatings employed, in pounds of VOC

per gallon of coating, excluding water;

(h) the total daily VOC and organic compound emissions (including cleanup emissions), in pounds;

(i) the total VOC and organic compound emissions (including cleanup emissions) for the calendar month, in pounds;]

(j) the total rolling, 12-month VOC and organic compound emissions (including cleanup emissions) as of the last day of the calendar month, in pounds.

* * * *

These records, as well as any supporting coating analyses and computations, shall be retained in the company's files for a period of not less than three years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

This facility shall submit semi-annual reports which summarize all of the above-mentioned information for the previous six calendar months. The reports shall be submitted by February 15 and August 15 of each year and shall cover the previous six calendar months (July through December and January through June, respectively).

7. This facility shall maintain daily records of the amount (gallons) of solvents recovered by the carbon adsorption system serving this source. The solvent recovery records shall be retained in this facility's files for a period of not less than three years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

   This facility shall submit semi-annual reports which summarize the total amount (gallons) of solvents recovered by the carbon adsorption system during each calendar month. The reports shall be submitted by February 15 and August 15 of each year and shall cover the previous six calendar months.

8. This facility shall continuously monitor and record the temperature of the exhaust gases from the thermal incinerator serving this source. The temperature records shall be retained in this facility's files for a period of not less than three years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

   An outlet temperature of not less than ___ ^{o}F shall be

maintained for the exhaust gases from the incinerator.

This facility shall submit semi-annual reports which provide the following information for each period during which the incinerator exhaust gas temperatures fall below ___ ^{o}F:

(a) the date of the excursion;
(b) the time interval over which the excursion occurred;
(c) the temperature values during the excursion;
(d) the cause(s) for the excursion; and
(e) the corrective action which has been or will be taken to prevent similar excursions in the future.

The reports shall be submitted by February 15 and August 15 of each year and shall cover the previous six calendar months (July through December and January through June, respectively).

9. This facility shall continuously monitor and record the temperature of the exhaust gases at the inlet (immediately before the catalyst bed) and at the outlet from the catalytic incinerator serving this source. The temperature records shall be retained in this facility's files for a period of not less than three years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

An inlet temperature of not less than ___ ^{o}F and a temperature difference across the catalyst bed of not less than ___^{o}F shall be maintained during operation of the incinerator.

This facility shall submit semi-annual reports which provide the following information for each period during which the incinerator inlet temperature falls below ___ ^{o}F or the temperature difference across the catalyst bed falls below ___^{o}F:

(a) the date of the excursion;
(b) the time interval over which the excursion occurred;
(c) the temperature values during the excursion;
(d) the cause(s) for the excursion; and
(e) the corrective action which has been or will be taken to prevent similar excursions in the future.

The reports shall be submitted by February 15 and August 15 of each year and shall cover the previous six calendar months (July through December and January through June, respectively).

10. [EITHER Once during each calendar year, beginning with calendar year 199_, OR Within 6 months prior to the expiration of this permit], this facility shall conduct, or have conducted, emission tests for this source in order to demonstrate compliance with the allowable VOC emission limitation. The emission tests shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10.

    Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the (District Office's or local air agency's) refusal to accept the results of the emission tests.

    Personnel from the (District Office or local air agency) shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the source operating parameters.

    A comprehensive written report on the results of the emission tests shall be submitted within 30 days following completion of the tests.

* * * * * * * * * * * * * * *

Recommended STCs for Certain Types of Coating Lines:

	Type of Coating Line	Recommended STCs
1.	coating lines which are subject to VOC content limitations and which do not employ control equipment	2, 3, and 6
2.	coating lines which are subject to VOC content limitations and which employ thermal or catalytic incineration	2, 4, 6, and 8 or 9, and 10
3.	coating lines which are subject to VOC capture and control efficiency limitations within OAC rules 3745-21-09(H), (U), (X), and (Y)	1, 5, 6, and 7, 8 or 9 (depending upon the type of control equipment employed), and 10

* * * * * * * * * * * * * * *

B. STCs For Coal-Fired Boilers:

1. The following rules of the Ohio Administrative Code establish the applicable emission limitations and/or control requirements for this source: OAC rule 3745-17-10, OAC rule 3745-18-___, and OAC rule 3745-17-07(A)-(D). (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

   OR

   The following rules of the Ohio Administrative Code establish the applicable emission limitations and/or control requirements for this source: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-10, OAC rule 3745-18-___, and OAC rule 3745-17-07(A)-(D). (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

2. The following rules of the Ohio Administrative Code establish the applicable emission limitations and/or control requirements for this source: OAC rule 3745-17-10(C)(7) and OAC rule 3745-17-07(A)-(D). (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

   OR

   The following rules of the Ohio Administrative Code establish the applicable emission limitations and/or control requirements for this source: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-10(C)(7) and OAC rule 3745-17-07(A)-(D). (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

3. The mass emissions from this source shall not exceed the following:

   (a) 0.10 pound of particulate emissions per million Btu actual heat input; and

   (b) ____ pounds of sulfur dioxide emissions per million Btu actual heat input.

4. The emissions from this source shall not exceed the following:

   (a) ____ pound of particulate emissions per million Btu actual heat input; and

   (b) ____ pounds of sulfur dioxide emissions per million Btu actual heat input.

5. [EITHER Once during each calendar year, beginning with calendar year 199_, OR Within six months prior to the expiration of this permit] this facility shall conduct, or have conducted, an

emission test(s) for this source in order to demonstrate compliance with the allowable mass emission rate for particulates. [OPTIONAL: Such test(s) shall include a determination of the actual mass rate of sulfur dioxide and nitrogen oxide emissions.] The emission test(s) shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-17-03.

Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the (District Office or local air agency). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source 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 (District Office or local air agency) refusal to accept the results of the emission test(s).

Personnel from (District Office or local air agency) shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the emission test(s) shall be submitted to the (District Office or local air agency) within 30 days following completion of the test(s).

6. The quality of the coal burned in this source shall meet the following specifications on an ("as-burned" or "as-received"), wet basis:

   (a) a sulfur content which is sufficient to comply with the allowable SO_2 emission limitation of ____ pounds $SO_2/10^6$ Btu actual heat input (optional if CEM is used);

   (b) less than ____ percent ash (optional if COM is used); and

   (c) greater than ____ Btu/pound of coal (optional if COM is used).

Compliance with the above-mentioned specification(s) for sulfur content [optional: ash content, and heat content] shall be determined by using (basis for the compliance determination--see below).

* *

Basis for compliance determination (choose one):

(i) analytical results provided by the coal supplier for each

shipment of coal

(ii) analytical results for the composite sample of coal collected during each calendar month

(iii) weighted, arithmetic average of the analytical results provided by the coal supplier for all shipments of coal during each calendar month

(iv) analytical results for the composite sample of coal collected during each calendar day

(v) the 30 day rolling, weighted average of the analytical results for the daily composite samples of coal

* *

7. This facility shall collect daily composite samples of the coal burned in this source. The individual samples for each daily composite shall be collected from (describe the location where the samples should be taken). A sufficient number of individual samples shall be collected so that each composite sample is representative of the average quality of coal burned in this source during each calendar day. The coal sampling shall be performed in accordance with ASTM method D2234 Collection of a Gross Sample of Coal.

   This facility shall also record, on a daily basis, the total quantity of coal burned in this source.

   Each daily composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content, and heat content shall be ASTM method D3174, Ash in the Analysis of Coal and Coke, ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke, and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, respectively. Alternative, equivalent methods may be used upon written approval from the (District Office or local air agency).

   Quarterly reports concerning the quality and quantity of the coal burned in this source shall be submitted to the (District Office or local air agency). These reports shall include the following information for the source for each day during the calendar quarter:

   (a) the total quantity of coal burned (tons);

   (b) the average ash content (percent) of the coal burned;

   (c) the average sulfur content (percent) of the coal burned;

   (d) the average heat content (Btu/lb) of the coal burned;

(e) the average sulfur dioxide emission rate (lbs $SO_2/10^6$ Btu actual heat input) from the coal burned; and

(f) the 30-day rolling, weighted average sulfur dioxide emission rate (lbs $SO_2/10^6$ Btu actual heat input).

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarters.

8. This facility shall collect a representative sample of each shipment of coal which is received for burning in this source. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, the representative samples of coal from all shipments of coal which were received during that calendar month shall be combined into one composite sample.

   This facility shall also record the total quantity of coal received in each shipment.

   Each monthly composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content, and heat content shall be ASTM method D3174, Ash in the Analysis of Coal and Coke, ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, respectively. Alternative, equivalent methods may be used upon written approval from the (District Office or local air agency).

   Quarterly reports concerning the quality and quantity of coal received for burning in this source shall be submitted to the (District Office or local air agency). These reports shall include the following information for the source for each calendar month during the calendar quarter:

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

   (b) the average ash content (percent) of the coal received;

   (c) the average sulfur content (percent) of the coal received;

   (d) the average heat content (Btu/lb) of the coal received; and

   (e) the average sulfur dioxide emission rate (lbs $SO_2/10^6$ Btu actual heat input) from the coal received.

   These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarters.

9. This facility shall submit to the (District Office or local air agency) on a quarterly basis, copies of the coal supplier's analyses (wet and dry) for each shipment of coal which is received for burning in this source. The coal supplier's analyses shall document the ash content (percent), sulfur content (percent), and heat content (Btu/lb) of each shipment of coal. The following information shall also be included with the copies

of the coal supplier's analyses:

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

(b) the weighted* average ash content (percent) of the coal received during each calendar month;

(c) the weighted* average sulfur content (percent) of the coal received during each calendar month;

(d) the weighted* average heat content (Btu/lb) of the coal received during each calendar month; and

(e) the weighted* average sulfur dioxide emission rate (lbs $SO_2/10^6$ Btu actual heat input) from the coal received each calendar month.

*In proportion to the quantity of coal received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the coal shipments received during the previous calendar quarters.

10. The facility, in cooperation with State Purchasing in the Department of Administrative Services, shall collect monthly composite samples of the coal burned in this source. A minimum of four (4) composite samples shall be collected each month. Each composite sample shall represent no more than 250 tons of coal. Individual samples must be collected from every truck/rail car load. When more than 1,000 tons of coal are delivered in any month, each composite sample shall not represent more than 250 tons of coal delivered. The weight of the individual samples, collected from each truck/rail car load to form a composite sample, shall be in proportion to the quantity of coal received in each shipment during the calendar month.

When the amount coal delivered is less than 1,000 tons per month, the composite tonnage of 250 can be reduced to any amount, but individual samples must be taken from every truck/rail car load. The frequency of a minimum of four (4) composite samples per month must consistently be maintained. The coal sampling shall be performed in accordance with the most recent version of ASTM method D2234, Collection of a Gross Sample of Coal.

The facility shall also record, on a daily basis, the total quantity of coal received.

Each composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content and heat content shall be the most recent version of ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke

Using High Temperature Tube Furnace Combustion Methods; and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, respectively. Alternative, equivalent methods may be used upon written approval from the Ohio EPA field office. The State may utilize the services of any private laboratory to conduct the testing in accordance with ASTM standards.

Quarterly reports (unless a more frequent time period is specified) concerning the quality of the composite coal samples and the quantity of the coal received at this source shall be submitted to the Air Quality Modeling and Planning Section of the Division of Air Pollution Control in Columbus, and the Ohio EPA field office.

The quarterly reports shall consist of a minimum of 12 composite sample analyses (minimum of four per month) and shall include the following source information for each month during the calendar quarter:

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

(b) the average ash content (percent) of the coal received;

(c) the average sulfur content (percent) of the coal received;

(d) the average heat content (Btu/lb) of the coal received; and

(e) the average sulfur dioxide emission rate (lbs $SO_2/10^6$ Btu actual heat input) from the coal received.

Compliance with the SO_2 emission limit shall be determined each month by calculating the average monthly SO_2 emission rate using a weighted average from the analyses of the composite samples.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year, unless otherwise specified by the Ohio EPA field office, and shall cover the data obtained during the previous calendar quarters.

11. During January and July of each year, the owner or operator shall submit reports to the (District Office or local air agency) which document the quality and quantity (on a dry basis) of each shipment of coal received during the previous 6 calendar months for the coal-fired fuel burning equipment and which demonstrate compliance with the requirements of term and condition No. ___ above. Data provided by the coal supplier(s) may be used for these semi-annual reports if such data are accurate and representative of the quality and quantity of each shipment of coal received for the fuel burning equipment.

12. This facility shall properly operate and maintain the continuous opacity monitor in accordance with the requirements of 40 CFR, Part 60.13. This facility shall submit reports on a quarterly

basis to the (District Office or local air agency) documenting all monitored opacity values in excess of the level specified in OAC rule 3745-17-07(A). These quarterly reports, prepared in accordance with 40 CFR, Part 60.7(C), shall be submitted by not later than the 15th day following each quarter and shall address

the data obtained during the previous calendar quarter. If during any calendar quarter, the nonexempt monitored opacity values exceed the level specified in OAC rule 3745-17-07(A) for more than 1.5% of the time during which BOOX and the opacity monitor are operating simultaneously, this facility shall submit in detail, the following additional information to the (District Office or local air agency) within 15 days following the end of the calendar quarter:

(a) the cause(s) for the exceedance(s); and

(b) the action which has been and/or will be taken by this facility to correct the cause(s) for the exceedance(s).

13. This facility shall properly operate and maintain the existing equipment which continuously monitors and records the sulfur dioxide emissions from this source. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13. This facility shall implement a quality assurance/quality control program which includes provisions for conducting a relative accuracy test following each monitor probe replacement. The relative accuracy test must be performed according to the procedures specified in Performance Specification Tests 2 and 3, 40 CFR Part 60, Appendix B. These results shall be submitted to the (District Office or local air agency) within 30 days following the date of probe replacement. This facility shall submit reports on a quarterly basis to the (District Office or local air agency) documenting all monitored sulfur dioxide values in excess of the level specified in OAC rule 3745-18-___. These quarterly reports, prepared in accordance with 40 CFR, Part 60.7(C), shall be submitted by not later than the 15th of each quarter and shall address the data obtained during the previous calendar quarter.

14. This facility shall operate the scrubber at all times in accordance with the following parameters:

(a) not less than _____ pH;

(b) not less than _____ inches pressure drop;

(c) not less than _____ gallons per minute water volume; and

(d) not less than _____ psig water pressure.

This facility shall operate and maintain, in good working condition, systems to monitor and record on an hourly basis the pH, differential pressure loss across the scrubber, the scrubber water volume, and the scrubber water pressure at all times source BOOX is operating. This facility shall keep records of the hourly pH, scrubber pressure drop, scrubber water volume, and scrubber water pressure readings. This facility shall submit quarterly reports to the (District Office or local air agency) documenting all pH, scrubber pressure drop, scrubber water

volume, and scrubber water pressure values less than those specified in (a) to (c) above. If during any calendar quarter, the monitored pH, scrubber pressure drop, scrubber water volume, and/or scrubber water pressure values are less than those specified in (a) to (c) above, this facility shall submit, in detail, the following additional information to the (District Office or local air agency) within 15 days following the end of the calendar quarter:

(i) the cause(s) for the excursion(s), and

(ii) the action which has been taken and/or will be taken by this facility to correct the cause(s) for the excursion(s).

15. This facility shall operate the source in compliance with the following requirements, pursuant to OAC rule 3745-17-10(C)(7):

(a) The boiler identified in this permit to operate must be used exclusively for space heating purposes.

(b) The coal received for use in the fuel burning equipment must have an ash content of less than 8.0 percent by weight and a heat content of greater than thirteen thousand Btu per pound. (Ash content and heat content shall be determined on a dry basis in accordance with the procedures specified in paragraph (B)(6) of rule 3745-17-03 of the Administrative Code.)

(c) The use of flyash reinjection in the coal-fired fuel burning equipment is prohibited.

(d) The coal-fired fuel burning equipment must employ an overfire air system which is designed, maintained and operated in accordance with good engineering practice and which minimizes visible emission from the fuel burning equipment.

(e) The coal-fired fuel burning equipment must be operated and maintained in a manner which will optimize combustion efficiency and minimize visible emissions.

* *

Recommended STCs for certain types of coal-fired boilers:

Boiler size/control equipment	Terms and Conditions
1. > 1000 MMBtu/hr. (with baghouse or ESP)	With COM: 1, 3, 5, 7, 12; 6 optional With CEM: 1, 3, 5, 9, 13; 6 optional With COM and CEM: 1, 3, 5, 12, 13; 6 and 9 optional Without COM or CEM: 1, 3, 5, 6, 7

2.	100 to 1000 MMBtu/hr (with baghouse or ESP)	With COM: 1, 4, 5, 8 (or 10 for a State facility), 12; 6 optional With CEM: 1, 4, 5, 6, 9, 13 With COM and CEM: 1, 4, 5, 12, 13; 6 and 9 optional Without COM or CEM: 1, 4, 5, 6, 8 (or 10 for a State facility)
3.	100 to 1000 MMBtu/hr A54CHAINMACRO()ky), (with scrubber)	1, 4, 5, 6, 8 (or 10 for a State 14
4.	10 to 100 MMBtu/hr (with baghouse or ESP)	With COM: 1, 4, 5, 9 (or 10 for a State facility), 12; 6 optional With CEM: 1, 4, 5, 13; 6 and 9 (or 10) optional With COM and CEM: 1, 4, 5, 12, 13; 6 and 9 (or 10) optional Without COM or CEM: 1, 4, 5, 6, 9 (or 10 for a State facility)
5.	10 to 100 MMBtu/hr (with scrubber)	1, 4, 5, 6, 9 (or 10 for a State facility), 14
6.	< 100 MMBtu/hr (with multiclone)	With COM: 1, 4, 5, 9 (or 10 for a State facility), 12; 6 optional With CEM: 1, 4, 5, 13; 6 and 9 (or 10) optional With COM and CEM: 1, 4, 5, 12, 13; 6 and 9 (or 10) optional Without COM or CEM: 1, 4, 5, 6, 9 (or 10 for a State facility)
7.	> 1 < 20 MMBtu/hr (without control equipment)	2, 4 [excluding subparagraph (a)], 11, 15

* * * * * * * * * * * * * * * * * * * *

C. STCs For Asphalt Batch Plants

1. The specific equipment which comprise this source are listed in the following table along with the applicable rules of the Ohio Administrative Code (OAC):

Equipment	Type of Emissions	Applicable Rules
(a) rotary dryer, hot aggregate elevator, vibrating screens, and weigh hopper	process (stack)	NSPS (40 CFR, Part 60, Subpart I) 3745-17-07 best available technology (pursuant to OAC rule 3745-31-05)
(b) aggregate storage bins and cold aggregate elevator	fugitive	best available technology 3745-17-08

(This condition in no way limits the applicability of other requirements of the OAC to this source.)

2. The specific equipment which comprise this source are listed in the following table along with the applicable rules of the Ohio Administrative Code (OAC):

Equipment	Type of Emissions	Applicable Rules
(a) rotary dryer, hot aggregate elevator, vibrating screens, and weigh hopper	process (stack)	best available technology (pursuant to OAC rule 3745-31-05) 3745-17-07
(b) aggregate storage bins and cold aggregate elevator	fugitive	best available technology 3745-17-08

(This condition in no way limits the applicability of other requirements of the OAC to this source.)

3. The specific equipment which comprise this source are listed in the following table along with the applicable rules of the Ohio Administrative Code (OAC):

	Equipment	Type of Emissions	Applicable Rules
(a)	rotary dryer, hot aggregate elevator, vibrating screens, and weigh hopper	process (stack)	3745-17-11 3745-17-07
(b)	aggregate storage bins and cold aggregate elevator	fugitive	3745-17-08

(This condition in no way limits the applicability of other requirements of the OAC to this source.)

4. The specific equipment which comprise this source are listed in the following table along with the applicable rules of the Ohio Administrative Code (OAC):

	Equipment	Type of Emissions	Applicable Rules
(a)	rotary dryer, hot aggregate elevator, vibrating screens, and weigh hopper	process (stack)	3745-17-11 3745-17-07
(b)	aggregate storage bins and cold aggregate elevator	fugitive	--

(This condition in no way limits the applicability of other requirements of the OAC to this source.)

5. The allowable mass emission limitation and control requirements for the equipment identified above are specified in the following table:

	Equipment	Allowable Mass Emission Limitation and Control Requirements
(a)	rotary dryer, hot aggregate elevator, vibrating screens, and weigh hopper	.04 grain/dry standard cubic foot of exhaust gases less than 20% opacity from stack

		no visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper
(b)	aggregate storage bins	the drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the elevator loading area
(c)	cold aggregate elevator	the aggregate loaded into the storage bins shall have a moisture content sufficient to eliminate the visible emissions of fugitive dust from the elevator and the transfer point to the dryer

(Note: If the source burns recycled, used oil, the following should be added under the "allowable" column for the equipment listed in (a): "___ lbs/hr of lead.")

6. The allowable mass emission limitation and control requirements for the equipment identified above are specified in the following table:

	Equipment	Allowable Mass Emission Limitation and Control Requirements
(a)	rotary dryer, hot aggregate elevator, vibrating screens, and weigh hopper	.04 grain/dry standard cubic foot of exhaust gases less than or equal to 20% opacity from the stack (except as provided in OAC rule 3745-17-07) no visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper

(b)	aggregate storage bins	the drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the elevator loading area
(c)	cold aggregate elevator	the aggregate loaded into the storage bins shall have a moisture content sufficient to eliminate the visible emissions of fugitive dust from the elevator and the transfer point to the dryer

(Note: If the source burns recycled, used oil, the following should be added under the "allowable" column for the equipment listed in (a): "___ lbs/hr of lead.")

7. The allowable mass emission limitation and control requirements for the equipment identified above are specified in the following table:

	Equipment	Allowable Mass Emission Limitation and Control Requirements
(a)	rotary dryer, hot aggregate elevator, vibrating screens, and weigh hopper	____ lbs/hr of particulate emissions less than or equal to 20% opacity from the stack (except as provided in OAC rule 3745-17-07) no visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens and weigh hopper
(b)	aggregate storage bins	the drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the elevator loading area

(c)	cold aggregate elevator	the aggregate loaded into the storage bins shall have a moisture content sufficient to eliminate the visible emissions of fugitive dust from the elevator and the transfer point to the dryer

(Note: If the source burns recycled, used oil, the following should be added under the "allowable" column for the equipment listed in (a): "___ lbs/hr of lead.")

8. This facility shall properly operate and maintain equipment to monitor the water flow rate (gallons/minute), water pressure (psig), and pressure drop (inches of H_20) for the scrubber. The water flow rate, water pressure, and pressure drop shall be recorded (hourly, once/shift, daily, weekly) by this facility while the source is in operation. These records shall be retained in the facility's files for a period of not less than two years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

9. This facility shall maintain the water flow rate, water pressure, and pressure drop for the scrubber at the following levels while the source is in operation:

   (a) a water flow rate of not less than ___ gallons/minute;
   (b) a water pressure of not less than ___ psig; and
   (c) a pressure drop of not less than ___ inches H_20.

10. This facility shall submit annual reports which summarize the results of the water flow rate, water pressure, and pressure drop measurements which were recorded for the scrubber. The reports shall be submitted within 60 days following the end of the "production season" for this source.

11. Within six months prior to the expiration of this permit, this facility shall conduct, or have conducted, an emission test for this source in order to demonstrate compliance with the allowable mass emission rate for particulates. The test shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-17-03 while the source is operating at or near maximum capacity and using only "virgin" materials.

    Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source operating parameters, the time(s) and date(s) of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the field office's refusal to accept the results of the

emission test.

Personnel from the (District Office or local air agency) shall be permitted to witness the test, examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the emission test shall be submitted within 30 days following completion of the test.

12. In accordance with permit to install number _____, this source has been approved for the use of recycled asphalt products.

13. This facility shall provide 24-hour advance notice when any emulsion mixes are to be used. In addition, daily production records shall be kept for the emulsion mixes. These records shall be retained in the facility's files for a period of not less than two years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

14. All recycled, used oil burned in this source shall meet the following specifications:

Contaminant/Property	Allowable Specification
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100°F, minimum
heat content	135,000 Btu/gallon, minimum

15. All recycled, used oil burned in this source shall meet the following specifications:

Contaminant/Property	Allowable Specification*
arsenic	____ ppm, maximum
cadmium	____ ppm, maximum
chromium	____ ppm, maximum
lead	____ ppm, maximum
PCB's	____ ppm, maximum
total halogens	4000 ppm, maximum
mercury	____ ppm, maximum
flash point	100°F, minimum
heat content	135,000 Btu/gallon, minimum

*Some or all of these used oil specifications exceed the Resource Conservation & Recovery Act Standards of 40 CFR Part 266.40 and OAC rule 3745-58-50, thereby, making the used oil off-specification.

16. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR 266.40(c) and OAC rule 3745-58-50. Therefore, this facility may receive and burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm, maximum) only if the supplier ["marketer" in 40 CFR 266.43(a)] has demonstrated to the Ohio EPA's Division of Solid and Hazardous Waste Management that the used oil does not contain any hazardous waste.

17. This facility shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

    (a) date of shipment or delivery,
    (b) quantity of used oil received,
    (c) the Btu value of the used oil,
    (d) the flash point of the used oil,
    (e) the arsenic content,
    (f) the cadmium content,
    (g) the chromium content,
    (h) the lead content,
    (i) the PCB content,
    (j) the total halogen content, and
    (k) the mercury content.

    Each analysis shall be kept for a minimum of three (3) years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

18. The Director or any authorized representative of the Director my require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by this facility, of any used oil stored at this facility, or of any used oil sampled at the process employing the used oil as fuel.

19. This facility may not receive or burn any used oil which does not meet the specifications of special term and condition number ___ without first obtaining a permit to install that authorizes the burning of such used oil.

20. This facility shall notify the USEPA that the used oil being burned exceeds USEPA's and Ohio EPA's used oil specifications. An identification number from USEPA shall be obtained prior to the combustion of any used oil.

    Before this facility accepts the first shipment of off-specification used oil from a marketer, this facility must provide the marketer a one-time, written and signed notice certifying that:

(a) the company has notified USEPA of its used oil management activities and that the notice included the location and description of those activities; and

(b) the company will burn the used oil only in an industrial furnace or boiler identified in 40 CFR 266.41(b) and OAC rule 3745-58-42.

A copy of each certification notice that this facility sends to a marketer must be kept on file for a minimum of three (3) years from the date it last received off-specification used oil from that marketer.

21. This facility shall submit a "Notice of Intent to Relocate a Portable or Mobile Source" form 30 days prior to any planned relocation of this source, in accordance with OAC rule 3745-31-03(A)(6). (A copy of the form is attached to this permit to operate.) Approval of the planned relocation must be obtained from the (District Office or local air agency) prior to the relocation.

* * * * * * * *

Recommended STCs for certain types of asphalt batch plants:

	Type of Asphalt Batch Plant	Recommended STCs*
(a)	new plants equipped with baghouses and subject to NSPS	1, 5, and 11
(b)	new plants equipped with scrubbers and subject to NSPS	1, 5, 8 (optional), 9 (optional), 10 (optional), and 11
(c)	new plants equipped with baghouses and subject to BAT (but not NSPS)	2, 6, and 11
(d)	new plants equipped with scrubbers and subject to BAT (but not NSPS)	2, 6, 8 (optional), 9 (optional), 10 (optional), and 11
(e)	existing plants equipped with baghouses and subject to OAC rule 3745-17-08	3, 7, and 11
(f)	existing plants equipped with scrubbers and subject to OAC rule 3745-17-08	3, 7, 8 (optional), 9 (optional), 10 (optional), and 11
(g)	existing plants equipped with baghouses and not subject to OAC rule 3745-17-08	4, 7, and 11
(h)	existing plants equipped with scrubbers and not subject to OAC rule and 11 3745-17-08	4, 7, 8 (optional), 9 (optional), 10 (optional),

*These recommended STCs do not address the use of recycled asphalt or emulsion mixes, the burning of waste oil, or reporting prior to a planned relocation (for a portable plant). If any of these conditions is applicable, please refer to the following STCs:

use of recycled asphalt	12
use of emulsion mixes	13
burning of waste oils	14-20

reporting prior to a planned relocation	21

* * * * * * * * *

G. STC's for Infectious Waste Incinerators

1. Emission Limitations (3745-75-02)

These terms and conditions should be used for any infectious waste incinerator as follows:

1A - <100 lb/hr;
1B - ≥100 lb/hr but <1800 lb/hr; and
1C - ≥1800 lb/hr.

A. The mass emissions from this source shall not exceed the following:

Particulates:	0.20 lb / 100 lb of waste charged
Hydrogen Chloride:	4.0 lb/hr or 90% minimum control efficiency by weight
Carbon Monoxide:	100 ppm, by volume, on a dry basis, adjusted to 7% oxygen as an hourly average

Metals:	Arsenic & compounds	- 0.0042 lb/hr
	Beryllium & compounds	- 0.0076 lb/hr
	Cadmium & compounds	- 0.0100 lb/hr
	Chromium & compounds	- 0.0015 lb/hr
	Lead & compounds	- 0.0680 lb/hr
	Mercury & compounds	- 0.0110 lb/hr
	Nickel & compounds	- 0.0076 lb/hr

Visible Part.: 5% opacity as a six-minute average except for one six-minute period in any continuous sixty minute period during which opacity shall not exceed 10% as a six-minute average.

B. The mass emissions from this source shall not exceed the following:

Particulates:	0.10 lb / 100 lb of waste charged
Hydrogen Chloride:	4.0 lb/hr or 90% minimum control efficiency by weight
Carbon Monoxide:	100 ppm, by volume, on a dry basis, adjusted to 7% oxygen as an hourly average

Metals:	Arsenic & compounds	- 0.0042 lb/hr
	Beryllium & compounds	- 0.0076 lb/hr
	Cadmium & compounds	- 0.0100 lb/hr
	Chromium & compounds	- 0.0015 lb/hr
	Lead & compounds	- 0.0680 lb/hr
	Mercury & compounds	- 0.0110 lb/hr

		Nickel & compounds - 0.0076 lb/hr
	Visible Part.:	5% opacity as a six-minute average except for one six-minute period in any continuous sixty minute period during which opacity shall not exceed 10% as a six-minute average.

C. The mass emissions from this source shall not exceed the following:

	Particulates:	0.06 lb / 100 lb of waste charged
	Hydrogen Chloride:	4.0 lb/hr or 90% minimum control efficiency by weight
	Carbon Monoxide:	100 ppm, by volume, on a dry basis, adjusted to 7% oxygen as an hourly average
	Metals:	Arsenic & compounds - 0.0042 lb/hr Beryllium & compounds - 0.0076 lb/hr Cadmium & compounds - 0.0100 lb/hr Chromium & compounds - 0.0015 lb/hr Lead & compounds - 0.0680 lb/hr Mercury & compounds - 0.0110 lb/hr Nickel & compounds - 0.0076 lb/hr
	Visible Part.:	5% opacity as a six-minute average except for one six-minute period in any continuous sixty minute period during which opacity shall not exceed 10% as a six-minute average.

2. Design Parameters (3745-75-03)

These terms and conditions should be used for any infectious waste incinerator as follows:

2ACDE - Batch/Intermittent Feed ≤400 lb/hr;
2ADE - Continuous Duty ≤400 lb/hr;
2ABCDEF - Batch/Intermittent Feed >400 lb/hr; and
2ABDEF - Continuous Duty >400 lb/hr.

A. All infectious waste shall be incinerated in a controlled air, multi-chamber incinerator, or equivalent technology as approved by the director, which provides complete combustion of waste, excluding metallic items, to carbonize or mineralized ash. Any ash that does not meet this criteria shall be reincinerated.

B. This incinerator shall be equipped with an automatic feeder which is designed and operated so that wastes

cannot be charged if the temperature of the gas exiting the secondary combustion chamber is less than 1800° F.

C. This batch incinerator, as defined in OAC rule 3745-75-02(F), shall incorporate a lockout system which will prevent the ignition of waste until the exit gas temperature of the secondary combustion chamber reaches 1800° F and which will prevent recharging until the combustion and burn-down cycles are complete.

D. The stack(s) from this incinerator shall be designed to minimize the impact of the emissions on employees, residents, patients, visitors, or nearby residences. The design of any unit shall meet good engineering practices so as not to cause excessive concentrations of any air contaminant at any air intake for heating and cooling of any building or at operable windows or doors.

E. If this incinerator is mechanically-fed, it must be equipped with an air lock system to prevent opening the incinerator to the room environment. The volume of the loading system shall be designed so as to prevent overcharging of the unit to assure complete combustion of the waste.

F. This incinerator shall be equipped with an air pollution control device designed to reduce hydrogen chloride emissions and provide for continuous compliance with the hydrogen chloride emission limits when the unit is in operation.

3. Operating Restrictions (3745-75-03)

These terms and conditions should be used for any infectious waste incinerator as follows:

3ACEFGH - Batch/Intermittent Feed; and
3BCDEFGH - Continuous Duty.

A. The primary combustion chamber for this incinerator shall be maintained so that the exit gas is a minimum temperature of 1200° F. The secondary combustion chamber for this incinerator shall be operated so that the exit gas is a minimum of 1800° F.

B. The primary combustion chamber for this incinerator shall be maintained so that the exit gas is a minimum temperature of 1400° F. The secondary combustion chamber for this incinerator shall be operated so that the exit gas is a minimum of 1800° F.

C. The secondary combustion chamber of this incinerator shall allow for a one-second retention time at 1800° F in

accordance with OAC rule 3745-75-03(D).*

D. Infectious waste shall not be loaded into the primary combustion chamber of this incinerator until the exit gas temperature has reached 1400° F.

E. This incinerator, including all associated equipment and grounds, shall be designed, operated and maintained to prevent the emission of objectionable odors.

F. The owner or operator of this incinerator shall not intentionally dispose of the following items by burning in the incinerator:

1. visible globules of mercury;
2. nickel-cadmium batteries; and
3. switches, thermometers, batteries and other devices containing mercury.

G. The source owner shall have this incinerator inspected monthly using preventive maintenance procedures recommended by the equipment manufacturer. The inspection shall include a written report containing any needed repairs to the unit. If repairs are needed, the incinerator shall not be operated if the operation results in any exceedance of the emission limits detailed in this permit. These repairs shall be completed within 30 days of the inspection. If a time period longer than 30 days is needed to complete the repairs, the **[field office name]** shall be notified in writing. This notice shall list the repairs needed and the reason(s) the repairs could not be accomplished within the required time period. All inspection and repair reports shall be kept by the source owner for a period of three (3) years and made available to the Ohio EPA upon request.

H. This incinerator is to be operated only by properly trained personnel. A minimum of forty hours of incinerator operation training shall be provided to each operator before he or she is allowed to operate this incinerator. This may include, for each operator, the successful completion of the training course in the operation and maintenance of hospital medical waste incinerators developed by the Control Technology Center, U.S. EPA, courses or instructions provided by incinerator manufacturers, professional engineering organizations, colleges or universities, or Ohio EPA. A copy of all the training records for each operator shall be maintained on file and be immediately available to the Ohio EPA personnel upon request.

* *Any incinerator may have a longer retention time specified in an Ohio EPA permit to install. All incinerators constructed after January 1, 1991 shall have a two-second retention time in the*

secondary combustion chamber at a minimum temperature of 1800° F.

4. Monitoring Requirements (3745-75-04)

These terms and conditions should be used for any infectious waste incinerator as follows:

4ACD - ≤1000 lb/hr; and
4ABCDE - >1000 lb/hr.

A. This facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the primary combustion temperature, the secondary combustion temperature and the bypass stack temperature (if applicable) when the incinerator is in operation. Units shall be in degrees Fahrenheit. Accuracy for each thermocouple/monitor/recorder shall be guaranteed by the manufacturer to be within ± 0.75% of the temperature being measured or ± 2.5 degrees Fahrenheit, whichever is greater. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

B. Prior to burning infectious waste in this incinerator, this facility shall install, operate and maintain equipment to continuously monitor and record the carbon monoxide emissions from this source. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60, section 60.13 and Appendix B, Performance Specification 4 and OAC rule 3745-75-04. This facility shall maintain and operate the carbon monoxide continuous emission monitoring system in accordance with 40 CFR Part 60, Appendix F. Any new continuous emission monitoring system for carbon monoxide shall be designed so that the requirements in 40 CFR Part 60, Appendix F can be achieved.

Within 30 days after the installation of the continuous monitoring and recording equipment, this facility shall conduct a performance specification test of such equipment pursuant to Section 3704.03(I) of the Ohio Revised Code and 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the **[field office name]** shall be permitted to witness the performance specification test, and 2 copies of the test results shall be submitted to the **[field office name]** within 30 days after the test is completed.

This carbon monoxide continuous emission monitoring system shall be equipped with an alarm which will indicate whenever concentrations exceed one hundred fifty parts per million (150 ppm) as an instantaneous measurement.

The certified continuous emission monitoring system will be the means by which compliance with OAC rule 3745-75-02(E) is determined.

C. Radioactive waste cannot be charged to this incinerator. This facility shall operate and maintain equipment to continuously monitor the radioactivity of all waste prior to combustion. This monitor shall be equipped with an alarm which sounds a warning when radioactive waste is present. For purposes of this permit, radioactive waste shall be defined as any waste which measures above ambient background levels of radiation. All radioactive infectious waste shall be managed in accordance with the applicable rules of the Ohio Department of Health and the regulations of the United States Nuclear Regulatory Commission.

D. A scale (accurate to within one pound) shall be installed near this incinerator to weigh all of the material charged to the unit. The scale shall be calibrated on an annual basis by an independent contractor. A record of the calibration date, responsible person(s) and results shall be kept on file for a minimum of three years and be made available for inspection by the Ohio EPA or its authorized representatives at any reasonable time. A written log shall be kept that records the amount of material charged to this unit on a pounds per hour basis. Alternative arrangements may be approved by the Director provided they can be shown to be of equivalent effectiveness as a method of regulating flow into the incinerator and generating a permanent record of charging rates.

E. Prior to burning infectious waste in this incinerator, this facility shall install, operate, and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this source. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13. In addition to demonstrating compliance with the requirements specified in 40 CFR Part 60.13, any new continuous opacity monitoring system shall be designed so that a performance audit of the system's operation can be conducted pursuant to the procedures specified in U.S. EPA document 340/1-83/010, "Performance Audit Procedures for Opacity Monitors."

Within 30 days after the installation of the continuous monitoring and recording equipment, this facility shall conduct a performance specification test of such equipment pursuant to Section 3704.03(I) of the Ohio Revised Code and 40 CFR Part 60, Appendix B, Performance Specification Test 1. Personnel from the **[field office name]** shall be permitted to witness the performance specification test, and 2 copies of the test results shall be submitted to the

[field office name]within 30 days after the test is completed.

The certified continuous opacity monitoring system will be the means by which compliance with OAC rule 3745-75-02(G) is determined.

5. Recordkeeping and Reporting Requirements (3745-75-05)

These terms and conditions should be used for any infectious waste incinerator as follows:

5CD - ≤1000 lb/hr ; and*
5ABCD - >1000 lb/hr.*

A. Pursuant to 40 CFR Part 60, sections 60.7 and 60.13(h), and OAC rule 3745-75-05, this facility shall submit reports on a quarterly basis to the **[field office name]** documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-75-02 or any limitations specified in the terms and conditions of this permit. Deviations from incinerator operating restrictions or any other requirements specified in the terms and conditions of this permit shall be reported on a quarterly basis. These quarterly excess emission reports shall be submitted by February 1, May 1, August 1 and November 1 of each year and shall address the data obtained during the previous calendar quarters.

B. Pursuant to 40 CFR Part 60, sections 60.7 and 60.13(h), 40 CFR Part 60, Appendix F and OAC rule 3745-75-05, this facility shall submit reports on a quarterly basis to the **[field office name]** documenting all instances of carbon monoxide values in excess of the limitations specified in OAC rule 3745-75-02 or any limitations specified in the terms and conditions of this permit. Deviations from incinerator operating restrictions or any other requirements specified in the terms and conditions of this permit shall be reported on a quarterly basis. This facility shall submit data assessment reports in accordance with 40 CFR Part 60, Appendix F. These quarterly excess emission reports and data assessment reports shall be submitted by February 1, May 1, August 1 and November 1 of each year and shall address the data obtained during the previous calendar quarters.

C. Logbook(s) shall be maintained for each continuous emission monitoring system installed on this incinerator to document all activities involving the monitoring systems. Appropriate records should include, as a minimum, preventive maintenance, quality assurance and corrective action activities. The logbook(s) shall be kept on file for a minimum of three years from the date of

entry and be made available for inspection by the Ohio EPA or its authorized representatives at any reasonable time.

D. All records pertaining to the operation of this incinerator (temperature charts, CEMS records, charging records, etc.) shall be maintained for a period of two years and be available for inspection by the Ohio EPA or its authorized representatives at any reasonable time.

* *OAC rule 3745-75-05(B) and (C) require all infectious waste incinerators with a capacity of ≤1000 lb/hr **and** >1000 lb/hr to report exceedances of the emission limitations specified in OAC rule 3745-75-02 on a quarterly basis. The emission limits listed in OAC rule 3745-75-02 include pollutants for which continuous emission monitoring is not required. In fact, incinerators with a capacity of ≤1000 lb/hr are not required to install CEMS for any pollutants. How this quarterly reporting is to be accomplished has yet to be determined.*

6. Compliance Tests (3745-75-06)

These terms and conditions should be used for any infectious waste incinerator as follows:

6C - ≤400 lb/hr;
6B - >400 lb/hr; and
6ADE - >1000 lb/hr.

A. This facility shall conduct, or have conducted, emission tests for this incinerator in order to establish the emission rates for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 23 and OAC rule 3745-75-06. The test(s) may be conducted as part of the annual stack test but shall be completed within 90 days of startup. The test(s) shall be conducted under maximum capacity rates unless otherwise specified or approved by the Ohio EPA.

Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the **[field office name]**. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source 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 field office's refusal to accept the results of the emission test(s).

Personnel from the **[field office name]** shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the emission test(s) shall be submitted to the **[field office name]** within 60 days following completion of the test(s).

B. This facility shall conduct annual performance tests to demonstrate compliance with the allowable mass emission rates or control efficiency rate as specified in OAC rule 3745-75-02(A) through (F), as applicable, for particulates, hydrogen chloride, carbon monoxide, arsenic, beryllium, cadmium, chromium, lead, mercury, and nickel. The emission test(s) shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-75-06; 40 CFR Part 60, Appendix A, Methods 1-5, 10, 26; 40 CFR Part 266, Appendix IX, section 3 (will be 40 CFR Part 60, Method 29) and 40 CFR Part 61, Appendix B, Method 101A. The test(s) shall be conducted under maximum capacity rates unless otherwise specified or approved by the Ohio EPA.

Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the **[field office name]**. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source 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 field office's refusal to accept the results of the emission test(s).

Personnel from the **[field office name]** shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the emission test(s) shall be submitted to the **[field office name]** within 30 days following completion of the test(s).

C. Within 6 months prior to the expiration of this permit, this facility shall conduct performance tests to demonstrate compliance with the allowable mass emission rates or control efficiency rate as specified in OAC rule 3745-75-02(A) through (F), as applicable, for particulates, hydrogen chloride, carbon monoxide, arsenic, beryllium, cadmium, chromium, lead, mercury, and nickel. The emission test(s) shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-75-06; 40 CFR Part 60, Appendix A, Methods 1-5, 10,

26; 40 CFR Part 266, Appendix IX, section 3 (will be 40 CFR Part 60, Method 29) and 40 CFR Part 61, Appendix B, Method 101A. The test(s) shall be conducted under maximum capacity rates unless otherwise specified or approved by the Ohio EPA.

Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the **[field office name]**. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source 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 field office's refusal to accept the results of the emission test(s).

Personnel from the **[field office name]** shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the emission test(s) shall be submitted to the **[field office name]** within 30 days following completion of the test(s).

D. This facility shall recertify the carbon monoxide continuous emission monitoring system on an annual basis in conjunction with the annual Relative Accuracy Test Audit (RATA) required by 40 CFR Part 60, Appendix F. The methods and procedures for recertification shall be in accordance with 40 CFR Part 60, Appendix B, Performance Specification 4.

Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the **[field office name]**. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source 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 field office's refusal to accept the results of the certification test(s).

Personnel from the **[field office name]** shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the certification test(s) shall be submitted to the **[field office name]** within 30 days following completion of the test(s).

E. This facility shall recertify the continuous opacity monitoring system for this incinerator on an annual basis. The methods and procedures for recertification shall be in accordance with 40 CFR Part 60, Appendix B, Performance Specification 1, section 7.

Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the **[field office name]**. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the source 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 field office's refusal to accept the results of the certification test(s).

Personnel from the **[field office name]** shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the source operating parameters.

A comprehensive written report on the results of the certification test(s) shall be submitted to the **[field office name]** within 30 days following completion of the test(s).