

Facility ID: 0363000002 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

[Go to Part II for Emissions Unit P014](#)

[Go to Part II for Emissions Unit P015](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0363000002 Emissions Unit ID: P014 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rotary Cement Kiln 1 (coal / coke / waste-derived fuel)	40 CFR Part 266.105*	0.08 grain of particulate matter (PM)/dscf @ 7% Oxygen
	OAC 3745-17-11	75 lbs PM/hr **
	OAC 3745-17-07(A)(1)-(3)	20% opacity, except as provided by rule
	OAC 3745-18-69(B)	43 lbs sulfur dioxide/ton cement produced
	40 CFR Part 266.106	see A.2.2.a
	40 CFR Part 266.107	see A.2.2.a
	40 CFR Part 266.104	see A.2.2.b

**2. Additional Terms and Conditions**

- (a) The mass input rates of metals and chlorine/chloride from all input streams as determined by feed rates established in accordance with 40 CFR Part 266.106 and 40 CFR Part 266.107, respectively, shall not exceed the mass input rates established during the most recent certification of compliance test as identified in Schedule B, condition F.3.a.i of this permit for the following metals on a rolling hour basis as defined in 40 CFR Part 266.102 (e) (6) (I) (B): Antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, and chlorine/chloride.  
The destruction/removal efficiency (DRE) of the organic hazardous constituents in the waste stream shall be at least 99.99%.

\* This facility is subject to 40 CFR Part 266, Subpart H, "Burning of Hazardous Waste in Boilers and Industrial Furnaces" (BIF regulations) effective August 21, 1991. These regulations establish additional emission limitations/operational restrictions for the burning of hazardous waste in cement kilns and are incorporated into this permit.

\*\* This limit is less stringent than the limit based on 40 CFR Part 266.105 (0.08 grain PM/dscf).

**B. Operational Restrictions**

1. The temperature as indicated by the monitoring device referenced in condition II.C.1 shall be maintained in excess of the minimum temperature which has been demonstrated to be necessary to destroy 99.99% of each principal organic hazardous constituent (POHC) at all times while waste-derived fuel is being fed to the kiln. In no case shall the temperature fall below the minimum temperature established during the most recent certification of compliance while waste is being fed to the kiln or while hazardous waste residues remain in the kiln.
2. Safeguard devices shall exist so that if the emissions unit or ancillary air pollution control equipment fails to operate properly, waste feed shall immediately cease.
3. Start-up of the kiln shall begin with the heating of the cold combustion zone with only natural gas, diesel fuel or coal/coke . The permittee shall minimize emissions during start-up of the kiln in accordance with the approved PM & MAP. Feeding of waste derived fuel to the kiln shall not commence until the temperature in the kiln combustion zone, as measured by the monitoring device referenced in condition II.C.1, reaches or exceeds that level demonstrated to be necessary to destroy each POHC, as defined in section II.B.1.

(Lafarge shall identify all start-up time periods and fuel-type in the quarterly reports.)

4.
  - a. Waste-derived fuel shall be injected only at the hot (clinker discharge) end of the kiln.
  - b. Waste-derived fuels shall not be injected into the kiln during periods of shutdown or process upset.
  - c. Only waste-derived fuel having a heat content of greater than or equal to 5,000 BTUs/pound may be burned in this kiln unless it can be demonstrated that the waste-derived fuel can provide useable heat for the process.
  - d. At no time shall waste materials be fed to the kiln unless the temperature in the kiln combustion zone has reached the minimum temperature established during the most recent certification of compliance and all parameters tied to the inter-lock system are in compliance with the levels established in accordance with condition II.B.6 of this permit to operate.
  - e. Waste derived-fuel shall not be injected into the kiln if the continuous temperature monitoring and recording device as defined in condition II.C.1, continuous emissions monitoring systems including carbon monoxide/oxygen (CO/O<sub>2</sub>) as defined in condition II.C.14, or total hydrocarbons (THC) as defined in condition II.C.15, and continuous opacity monitoring system (COMS) as defined in condition II.C.13 are not operating properly in accordance with 40 CFR Part 60, Appendix F, or the approved Quality Assurance/Quality Control Plan. Monitor downtime (improper operation) is defined as anytime a CEMS can not provide valid, quality-assured data due to a malfunction or failure of any quality assurance test as defined in 40 CFR Part 60, Appendix F. Monitor downtime periods begin when the CEMS experiences a malfunction or fails a quality assurance test and end when the CEMS successfully completes a subsequent quality assurance test.
  - f. Waste-derived fuel that is to be burnt in the kiln shall conform to the specifications listed in Schedule A (Specifications of Blended Waste-Derived Fuel), section II.F.2 of this permit.
5. The permittee shall comply with all State and federal laws and regulations including, but not limited to, the Toxic Substances Control Act of 1979. No polychlorinated biphenyls (PCB's) in excess of 50 parts per million shall be combusted at the Paulding facility unless the permittee obtains an Ohio EPA permit to install (PTI). No herbicides, pesticides, rodenticides, insecticides, or high-level or low-level radioactive wastes or other materials shall be combusted in violation of State and federal laws and regulations.
6. The permittee shall maintain an automatic hazardous waste feed cut-off system (interlocks) that shall be engaged when the levels established during the most recent certification of compliance test as identified in Schedule B, section II.F.3. of this permit are not maintained. The interlocks shall be tied to the following parameters: combustion chamber temperature, CO, THC, waste-derived fuel flow rate, raw material feed, operation of cement kiln dust recovery system (P025 & P026), precipitator power (if applicable), precipitator inlet temperature (if applicable), and pressure drop across the baghouse (if applicable). All interlock values except the operation of the cement kiln dust recovery system are based on rolling hourly averages.
7. The pressure drop across the baghouse shall be maintained in accordance with the limit, as defined in Schedule B, condition II.F.a.ii while the emissions unit is in operation.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitoring and recording device that measures and records the combustion zone temperature of the kiln and shall be operated at all times while the kiln is in operation. The continuous temperature monitoring device and recorder shall be calibrated annually and have an accuracy of + or - 1% of the temperature being measured and recorded.
2. The permittee shall operate and maintain a continuous flow monitoring and recording device that measures and records the total volumetric flow through the kiln. The monitoring of the flow rate shall take place at a location representative of volumetric flow through the kiln.
3. The operation of this emissions unit and the associated air pollution control equipment shall be monitored and recorded on a continuous basis.
4. The permittee shall maintain daily records of the maximum production rates while producing clinkers, in tons.
5. Chemical analyses of the blended waste-derived fuel fed to the kiln shall be conducted daily. The analyses shall be performed in accordance with the test methods specified in OAC rule 3745-54-13 and/or 40 CFR Part 264.13, as applicable, and, at a minimum, shall include the analyses of the following:
  - a. Heat value (BTU/lb) of waste-derived fuel .
  - b. Halogen content and sulfur content, in weight percent (wt %).
  - c. Concentrations (PPM) of metals listed in Schedule A, section II.F.2., in ppm.
  - d. Polychlorinated biphenols (PCB) concentration, in PPM.
  - e. Benzene concentration, in wt %.
  - f. pH.

Additionally, an analysis for total suspended solids (TSS) contained in the blended waste-derived fuel shall be conducted on a weekly basis.

If no materials have been added to the blended waste-derived fuel being fed to the kiln, the chemical analyses from the previous day will be sufficient to demonstrate compliance with this condition.

6. A minimum sample of 100 milliliters (ml) shall be taken from each batch of blended-waste derived fuel. Each sample shall be saved for a period of at least 90 days.
 

Any sample or measurement taken for the purpose of monitoring shall be a representative sample or measurement, as such term is defined and used in the Ohio hazardous waste rules. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of OAC rule 3745-51-20, Laboratory Methods. Laboratory methods must be those specified in Test Methods for the Evaluation of Solid Waste: Physical/Chemical Methods, SW-846, November 1986, and additional supplements or editions thereof; or any equivalent methods as specified in the approved waste analyses plan or as such term is defined and used in the Ohio hazardous waste rules.
7. The records of sampling and monitoring information required in conditions II.C.5. and II.C.6. above shall specify the following:
  - a. the date(s), source of sample, time(s) and method(s) of sampling or measurement;
  - b. the individual(s) who collected the sample or performed the measurements;

- c. the date(s) analyses were performed;
  - d. the individual(s) who performed the analyses;
  - e. the analytical technique(s) or method(s) used; and
  - f. the results of such analyses.
8. For quality assurance purposes, the Director may at his discretion, require that the permittee submit samples to an independent laboratory, other than Systech, for detailed chemical analyses for any or all of the constituents listed in Schedule A, condition II.F.2. The samples may include any materials retained as a requirement of condition II.C.6 or any sample taken at the point of generation. The frequency for these independent analyses, which shall be conducted at the permittee's expense, shall not exceed four (4) per year under normal operating conditions.
9. Within thirty (30) days of the issuance of this permit, the permittee shall submit a plan for random testing of the samples retained as a requirement of condition II.C.6. by an independent laboratory, other than Systech. The plan should require the independent laboratory to analyze the random samples for the parameters listed in condition II.C.5. and have the results submitted concurrently to the appropriate Ohio EPA District Office or local air agency and to the permittee.
10. A record of the materials received for burning at the facility shall be maintained daily by the permittee. The record shall contain, as a minimum, the following information:
- a. name and address of the company from which the material was received;
  - b. name, address, and location of the company and facility from which the material was generated or blended;
  - c. date the material was received;
  - d. amount of material and type of container; and
  - e. description of the material including chemical composition.
11. The permittee shall maintain a record of the materials burned in this emissions unit. At a minimum, the record shall contain data necessary to determine the following information for each hour of operation:
- a. the total hourly mass feed rate of waste derived fuel to this emissions unit, in tons;
  - b. the total heat input to this emissions unit measured and recorded on a one-minute basis;
  - c. heat content (BTU/lb) of waste-derived fuel for each batch of waste-derived fuel added to the waste-derived fuel feed tank;
  - d. waste-derived fuel percent of total BTU input as measured and recorded on a one-minute basis by the plant automation system;
  - e. a daily analysis of the maximum hourly chlorine content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C;
  - f. a daily analysis of the maximum hourly sulphur content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C;
  - g. a daily analysis of the maximum hourly lead content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C; and
  - h. a daily analysis of the maximum hourly mercury content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C.
12. The permittee shall maintain daily records that contain the following information on fuel usage:
- a. tons of waste derived fuel injected into the kiln;
  - b. tons of coal fed to the kiln;
  - c. tons of coke fed to the kiln; and
  - d. the average heat content (BTU/lb) of coal and coke (to be determined on a weekly basis from a composite of daily samples).
13. a. Within one-hundred eighty (180) days of the effective date of this permit, the permittee shall install, operate and maintain a continuous opacity monitoring system (COMS) in accordance with 40 CFR Part 60 requirements to measure and record the visible particulate emissions from this emissions unit. In addition to demonstrating compliance with the requirements specified in 40 CFR Part 60, all acceptable continuous opacity monitoring systems (COMS) 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 EPA 450/4-92-010.
- (The percentage of opacity, as a six-minute block average, shall be determined from the data obtained from the continuous opacity monitoring system.)
- b. Within sixty (60) days of installation, the permittee shall certify the COMS in accordance with 40 CFR Part 60, Appendix B, Performance Specification 1 (PS 1). The appropriate Ohio EPA District Office or local air agency shall be afforded thirty (30) days notice in order to witness the tests.
  - c. Within thirty (30) days of completing the certification tests required by PS 1, the permittee shall submit two (2) copies of the test results, one to the appropriate Ohio EPA District Office or local air agency and one to the Ohio EPA, DAPC, Central Office.

- d. Within one hundred eighty (180) days of the effective date of this permit, the permittee shall submit a written quality assurance/quality control plan for the COMS designed to ensure the validity and representativeness of the opacity readings. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of PS 1 are maintained on a continuous basis. A logbook dedicated to the COMS must be kept on-site and available for inspection during normal business hours.
- e. The COMS shall undergo the certification tests as required by PS 1 whenever an opacity monitor or related peripherals of the COMS are replaced or modified in such a way that significantly affects the ability of the system to measure or record the opacity of this emissions unit.
- f. On a quarterly basis, the permittee shall conduct a performance audit linearity check using an audit jig with NIST certified neutral density filters in accordance with the procedures specified in U.S. EPA document, EPA 450/4-92-010. Should the COMS fail to achieve the calibration error percentage required by 40 CFR Part 60, Appendix B, PS 1, Table 1-1, the COMS shall be recalibrated and acceptable results verified by a successful performance audit linearity check.
- g. The permittee shall maintain a file of all measurements, data, reports and any other activities involving this COMS in a form suitable for inspection.
14. a. The permittee shall operate and maintain a continuous emission monitoring system (CEMS) to measure and record CO emissions and oxygen (O<sub>2</sub>) concentrations from this emissions unit in accordance with 40 CFR Part 60 and appendices thereto. The CEMS consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, the analyzers and data recording/processing hardware and software. The CEMS shall be maintained and operated in accordance with 40 CFR Part 60, Appendix F.
- b. The permittee shall perform the quality assurance requirements in accordance with an approved Quality Assurance/Quality Control Plan for the CEMS. The appropriate Ohio EPA District Office or local air agency and Central Office must be provided at least thirty (30) days notification of the date(s) of the annual performance specification test so as to provide the opportunity to witness the tests.
- c. The permittee shall submit two (2) copies of the annual performance specification test results, one to the appropriate Ohio EPA District Office or local air agency and one to the Ohio EPA, DAPC, Central Office within thirty (30) days of conducting the tests in accordance with OAC rule 3745-15-04(A).
- d. Within one hundred eighty (180) days of the effective date of this permit, the permittee shall submit a written quality assurance/quality control plan for the O<sub>2</sub> and CO CEMS designed to meet the requirements of section 3 of 40 CFR Part 60, Appendix F. A logbook dedicated to each CEMS must be kept on-site and made available for inspection upon request during normal business hours. Any adjustments to the CEMS must be recorded in the log book in accordance with section 4.2 of 40 CFR Part 60, Appendix F. Within sixty (60) days of receipt of any notification of deficiency concerning the quality assurance/quality control plan, the permittee shall submit a revised quality assurance/quality control plan to the Director of the Ohio EPA for approval.
- e. Whenever an O<sub>2</sub> or CO monitor or related peripherals of a CEMS are replaced or modified in such a way that significantly affects the ability of the system to measure or record the emissions of this source, the CEMS shall undergo the performance specification test procedures as required by 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4.
- f. The data obtained from the CEMS shall be used to determine compliance with the applicable hazardous waste feed cut-off set point as identified in Schedule B, condition II.F.3.ii of this permit.
- g. The permittee shall maintain a file of all one-minute average measurements, all raw data, rolling-one hour average measurements, reports and any other activities involving this CEMS in a form suitable for inspection.
15. a. The permittee shall operate and maintain a continuous emission monitoring system (CEMS) for THC. The CEMS consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, the analyzers and data recording/processing hardware and software. The CEMS shall be used to measure and record THC emissions from this emissions unit, in parts per million (ppm).
- b. The permittee shall perform the quality assurance requirements in accordance with an approved Quality Assurance/Quality Control Plan for the CEMS. The appropriate Ohio EPA District Office or local air agency must be provided at least thirty (30) days notification of the date(s) of the annual performance specification test so as to provide the opportunity to witness the tests.
- c. Within one hundred eighty (180) days of the effective date of this permit, the permittee shall submit a written quality assurance/quality control plan for the THC CEMS designed to meet the requirements of section 3 of 40 CFR Part 60, Appendix F. A logbook dedicated to each CEMS must be kept on-site and made available for inspection upon request during normal business hours. Any adjustments to the CEMS must be recorded in the log book in accordance with section 4.2 of 40 CFR Part 60, Appendix F. Within sixty (60) days of receipt of any notification of deficiency concerning the quality assurance/quality control plan, the permittee shall submit a revised quality assurance/quality control plan to the Director of the Ohio EPA for approval.
- d. Whenever a THC monitoring system or related peripherals of a CEMS are replaced or modified in such a way that significantly affects the ability of the system to measure or record the emissions of this source, the CEMS shall demonstrate that the calibration error is less than or equal to 5% of span value and less than 5 ppm at each point and calibration drift not to exceed 3 ppm or 3% of the span value within sixty (60) days of replacement or modification.
- e. The data obtained from the CEMS shall be used to determine compliance with the applicable hazardous waste feed cut-off set point as identified in Schedule B, condition II.F.3 of this permit.
- f. The permittee shall maintain a file of all one-minute average measurements, all raw data, one-hour rolling averages, reports and any other activities involving this CEMS in a form suitable for inspection.
16. a. The permittee shall maintain and operate a continuous emission monitoring system (CEMS) to measure and record the gas stream flowrate from this emissions unit. The flow monitoring device shall be installed at a location representative of volumetric flow through the kiln. The flowrate CEMS shall be capable of meeting the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6 and provide gas stream flowrates in units of actual thousand cubic feet per minute (kcfm).
- The data obtained from the CEMS shall be used to determine compliance with the flowrate limitation as defined in condition II.F.3 of this permit.
- b. Within one-hundred eighty (180) days of the effective date of this permit, the permittee shall certify the flowrate CEMS in accordance with 40 CFR Part 60, Appendix B, Performance Specification 6. The appropriate Ohio EPA District Office or local air agency and the Ohio EPA, DAPC, Central Office shall be afforded thirty (30) days notice in order to witness the tests.
- c. Within thirty (30) days of completing the certification tests required by 40 CFR Part 60, Appendix B, Performance Specification 6, the permittee shall submit two (2) copies of the test results, one copy to the appropriate Ohio EPA District Office or local air agency and one to the Ohio EPA, DAPC, Central Office.
- d. The permittee shall maintain the flowrate CEMS in accordance with the quality assurance procedures of 40 CFR Part 60, Appendix F. The Data Accuracy Assessment detailed in section 5 shall consist of an annual

relative accuracy test audit (RATA) in accordance with section 5.1.1. Sections 5.1.2 and 5.1.3 do not apply. The written quality control plan, as required under 40 CFR Part 60, Appendix F, section 3, must be submitted within one hundred eighty (180) days of installation for Ohio EPA approval. In addition, the permittee shall conduct a daily interference check of the flowrate CEMS to ensure that the moisture and particulate expected to occur at the monitoring location does not interfere with the proper functioning of the flow monitoring system. Also, the permittee shall conduct a daily check to detect any malfunction of the resistance temperature detector, transceiver or equivalent. The quarterly data assessment reports, as required under 40 CFR Part 60, Appendix F, section 7, shall be submitted to the appropriate DO/LAA within thirty (30) days following the end of each calendar quarter.

e. A logbook dedicated to the flowrate CEMS must be kept on-site and available for inspection upon request during normal business hours.

f. The permittee shall maintain a file of all measurements, data, reports and any other activities involving this CEMS in a form suitable for inspection.

17. a. Within 6 months of the issuance of this permit, the permittee shall submit to the appropriate Ohio EPA District Office or local air agency the standard operating procedures for radioactivity screening of all incoming loads of hazardous waste .

b. The permittee shall install, operate and maintain a Radiation Alert Monitor 4 or another radiation monitor approved by the Director. The facility shall analyze a sample from each incoming load of fuel for radioactive materials. The permittee shall not burn any supplemental fuels in which radioactivity levels detected are greater than background levels. The background levels shall be determined in accordance with the quality control procedures listed in the permittee's Standard Operating Procedure for Radioactivity Screening.

18. a. Within one-hundred-eighty (180) days of the effective date of this permit, the permittee shall install and maintain remote access to a bulletin board system, via modem, for one account at the appropriate Ohio EPA District Office or local air agency and one account at the OEPA-DAPC, Central Office via two (2) or more phone line connections. All accounts will be password protected and will be available for access (viewing and retrieval only) at all times. The system shall not interfere with the operation of the data acquisition system (DAS) and shall provide data identical to the raw and computed data stored in the DAS. The bulletin board system shall provide real time data, defined as one-minute averages unless otherwise specified, in units of the standard (where applicable). This data shall be updated every minute. The data shall be available on the bulletin board system for a minimum period of five (5) working days to provide access to historical data in units that represent compliance standards (where applicable) for the parameters identified in condition II.C.18.b.

b. Data Accessible via telemetry:

High Range CO (dry) ppm (one-minute averages)

Low Range CO (dry) ppm (one-minute averages)

Corrected CO (dry @ 7% O<sub>2</sub>) ppm (one-minute averages updated . each minute)

Corrected CO (dry @ 7% O<sub>2</sub>) ppm (one-hour rolling averages updated . every minute)

O<sub>2</sub> (dry) percent (one-minute block averages)

THC (dry) ppmv (one-minute averages)

Opacity percent (as a six-minute, block averages.)

Flue Gas Flow Rate thousand ACFM

Kiln Comb. Zone Temp. F, one-minute block avg.

Baghouse pressure drop inches of water, one-hour average

Supplemental Fuel Flow Rate tons/hr

Raw Material Feed Rate gallons/minute

c. Any future changes to the bulletin board system shall be submitted for approval to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, DAPC, Central Office prior to implementation.

19. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on an hourly basis.

#### D. Reporting Requirements

1. The permittee shall report all emissions unit or ancillary air pollution control equipment malfunctions to the appropriate Ohio EPA District Office or local air agency in accordance with OAC rule 3745-15-06.

2. The permittee shall submit deviation (excursion) reports which identify any periods when the temperature of the kiln combustion zone was below the minimum temperature identified in Schedule B, condition II.F.3.a.ii established during the most recent certification of compliance, while waste derived fuels were present in the kiln, as well as the corrective action(s) that were taken to achieve compliance.

3. The company shall submit monthly deviation (excursion) reports which identify any exceedances of all limits specified in Schedule A, condition II.F.2, as well as the corrective action(s) that were taken to achieve compliance. The reports shall be submitted by the 15th of each month and shall cover the previous calendar month.

4. The permittee shall immediately notify the appropriate Ohio EPA District Office or local air agency of any deviation (excursion) of the permit restrictions of waste-derived fuel heat content of 5000 BTUs/lb and/or of any instance of nonconformance with the fuel specifications of this permit.

5. The permittee shall submit deviation (excursion) reports which identify all instances when the parameter in condition II.C.11.c is less than 5,000 BTUs/lb, as well as the corrective action(s) that were taken to achieve compliance.
6. In accordance with 40 CFR Part 60.7 ND 60.13(H), the permittee shall submit deviation (excursion) reports which identify all six-minute averages of opacity in excess of the limitations specified in OAC rule 3745-17-07, as well as the corrective action (s) that were taken to demonstrate compliance. The report shall include the date, time of commencement and completion, time duration, magnitude (% opacity), reason (if known) and corrective action taken (if any) for each exceedance. All monitor downtime while the source was on-line must be documented (date, time, duration and reason) and included in the report along with all corrective actions taken. The source operating time during the reporting period shall be provided along with the date, time, reason and corrective action(s) taken for each time period of source and/or control equipment malfunctions.
7. The permittee shall submit deviation (excursion) reports detailing the date, commencement and completion times, duration, magnitude (ppm), reason (if known), and corrective actions taken (if any) of all rolling one-hour averages above the applicable CO hazardous waste feed cut-off set point as identified in Schedule B, condition II.F.3 of this permit. Any CEMS downtime while the source was on-line must be documented (date, time, duration and reason) and included in the report along with any corrective action(s) taken. The source operating time during the reporting period shall be provided along with the date, time, reason and corrective action(s) taken for each time period of source and/or control equipment malfunctions.
8. The permittee shall submit deviation (excursion) reports detailing the date, commencement and completion times, duration, magnitude (ppmv), reason (if known), and corrective actions taken (if any) of all rolling one-hour averages above the applicable THC hazardous waste feed cut-off set point as identified in Schedule B, condition II.F.3 of this permit. Any CEMS downtime while the source was on-line must be documented (date, time, duration and reason) and included in the report along with any corrective action(s) taken. The source operating time during the reporting period shall be provided along with the date, time, reason and corrective action(s) taken for each time period of source and/or control equipment malfunctions.
9. The permittee shall submit monthly deviation (excursion) reports which list any automatic waste feed cut-offs that occurred during the month, the reason(s) for the automatic cutoffs, and any corrective measures taken to prevent or minimize the recurrence of the automatic cutoffs. These reports shall be due by the 15th of each month, and shall cover the previous calendar month. If no automatic waste feed cutoffs occurred, a report stating that fact is required.
10. The permittee shall submit two (2) copies of the annual performance specification test results, one copy to the appropriate Ohio EPA DO or LAA and one to the Ohio EPA, DAPC, Central Office within thirty (30) days of conducting the tests.
11. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the minimum allowable limit, as defined in Schedule B, condition II.F.a.ii.

#### E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted 6 months prior to permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the limits of 0.08 grain PM/dscf and 75 lbs PM/hr.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to permit renewal, or no later than July 30, 1999.
  - b. The emission testing shall be conducted to demonstrate compliance with the destruction and removal efficiency (DRE) of the principal organic hazardous constituents (POHCs) of 99.99%. A minimum of two (2) POHCs shall be selected for the test and shall be approved by the Ohio EPA prior to testing.
  - c. The permittee shall submit to the Ohio EPA for approval, at least sixty days (60) days prior to the test, the methodologies by which compliance will be demonstrated.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such

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

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

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

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate of 43 lbs sulfur dioxide/ton cement produced.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 6 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

4. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted annually.
  - b. The emission testing shall be conducted to determine the mass emission rates of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, mercury, and hydrogen chlorides.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
    - i. For antimony, arsenic, barium, beryllium, cadmium, chromium, lead, silver, mercury, and thallium use method 29 of 40 CFR Part 60, Appendix A.
    - ii. For hydrogen chlorides use method 26A of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

5. Compliance Methods Requirements:
 

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

  - a. Emission Limitation:  
20% opacity, as a 6-minute average

Applicable Compliance Method:  
The data obtained from the certified continuous opacity monitoring system and USEPA Methods shall be used to demonstrate compliance with the above opacity limit.
6. Compliance with the input feed rate limits identified in Schedule B, condition II.F.a.i shall be demonstrated in accordance with the procedures identified in Schedule C.

**F. Miscellaneous Requirements**

1. The Director reserves the right to require that the minimum temperature in the kiln combustion zone be higher than the minimum temperature established during the most recent certification of compliance during the combustion of certain or all waste materials.

2. SCHEDULE A:

SPECIFICATIONS OF BLENDED WASTE-DERIVED FUEL

Heat Content 5,000 BTU per pound minimum

Suspended Solids 30% maximum

Sulfur 3% sulfur

Halogens 5% maximum

Inorganic Acids and Bases extractable pH between 4.0 and 11.0

Water 1% maximum as separated phase

Metals:

COMPOUND MAXIMUM CONCENTRATION DATE ESTABLISHED  
(PPM)

Antimony 3,500 July 1995

Arsenic 600 July 1995

Barium 5,000 July 1995

Beryllium 25 July 1995

Cadmium 450 July 1995

Chromium 2,000 July 1995

Lead 4,000 July 1995

Mercury 500 July 1995

Silver 32,000 July 1995

Thallium 400 July 1995

Zinc 3,000

PCB <50

3. a. SCHEDULE B:

SPECIFICATIONS OF MASS INPUT FEED RATES  
& INTERLOCK WASTE FEED CUT-OFF LIMITS

i. MASS INPUT FEED RATES

The mass input rates of metals and chlorine/chloride from the "waste-derived fuel" from all input streams as determined by 40 CFR Part 266 feed rate limits, shall not exceed the mass input rates (as indicated below) established during the most recent certification of compliance for the following metals on a rolling hour basis as defined in 40 CFR Part 266.102 (e) (6) (I) (B). The mass input feed rate limits identified below shall be updated to reflect the most recent input rates established during the most recent certification of compliance within ninety (90) days of completion of the certification of compliance test.

COMPOUND INPUT FEED RATE(lbs/hr) DATE ESTABLISHED

Antimony 34.17 July 1995

Arsenic 6.53 July 1995

Barium 5709.97 July 1995

Beryllium 1.11 July 1995

Cadmium 2.03 July 1995

Chromium 16.60 July 1995

Lead 24.47 July 1995

Mercury 9.13 July 1995

Silver 341.72 July 1995

Thallium 5.71 July 1995

Chlorine/Chloride 264.55 July 1995

ii. INTERLOCK WASTE FEED CUT-OFF LIMITS

The permittee shall maintain an automatic hazardous waste feed cut off system (interlocks) that shall be engaged when the levels established during the most recent compliance certification test as identified below are not maintained. All interlock values are based on rolling hourly averages. The Interlock values identified below shall be updated to reflect the most recent applicable values established during the most recent certification of compliance within ninety (90) days of completion of the certification of compliance test.

PARAMETER WASTE FEED CUT OFF DATE ESTABLISHED

minimum combustion 2253 F July 1995  
zone temperature

CO (maximum) 263 ppmv (ppm @ 7% O<sub>2</sub>) July 1995

THC compounds 20 ppmv July 1995

(maximum)

waste derived fuel 6.17 tons/hr July 1995  
flow rate (maximum)

raw material feed 235 gpm July 1995  
production rate (maximum)

baghouse pressure drop 5.72 inches of water May 1997

(minimum)

b. Pursuant to PTI #03-8500, any visible emissions associated with the operation of emissions units P025 and/or P026 shall result in the cut-off of waste derived fuel until compliance with BAT and the provisions of all effective permits is achieved.

4. SCHEDULE C (separate attachment)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 036300002 Emissions Unit ID: P015 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Rotary Cement Kiln 2 (coal / coke / waste-derived fuel)	40 CFR Part 266.105*	0.08 grain of particulate matter (PM)/dscf @ 7% Oxygen
	OAC 3745-17-11	75 lbs PM/hr **
	OAC 3745-17-07(A)(1)-(3)	20% opacity, except as provided by rule
	OAC 3745-18-69(B)	43 lbs sulfur dioxide/ton cement produced
	40 CFR Part 266.106	see A.2.2.a
	40 CFR Part 266.107	see A.2.2.a
	40 CFR Part 266.104	see A.2.2.b

**2. Additional Terms and Conditions**

- (a) The mass input rates of metals and chlorine/chloride from all input streams as determined by feed rates established in accordance with 40 CFR Part 266.106 and 40 CFR Part 266.107, respectively, shall not exceed the mass input rates established during the most recent certification of compliance test as identified in Schedule B, condition F.3.a.i of this permit for the following metals on a rolling hour basis as defined in 40 CFR Part 266.102 (e) (6) (I) (B): Antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, and chlorine/chloride.  
The destruction/removal efficiency (DRE) of the organic hazardous constituents in the waste stream shall be at least 99.99%.

\* This facility is subject to 40 CFR Part 266, Subpart H, "Burning of Hazardous Waste in Boilers and Industrial Furnaces" (BIF regulations) effective August 21, 1991. These regulations establish additional emission limitations/operational restrictions for the burning of hazardous waste in cement kilns and are incorporated into this permit.

\*\* This limit is less stringent than the limit based on 40 CFR Part 266.105 (0.08 grain PM/dscf).

**B. Operational Restrictions**

1. The temperature as indicated by the monitoring device referenced in condition II.C.1 shall be maintained in excess of the minimum temperature which has been demonstrated to be necessary to destroy 99.99% of each principal organic hazardous constituent (POHC) at all times while waste-derived fuel is being fed to the kiln. In no case shall the temperature fall below the minimum temperature established during the most recent certification of compliance while waste is being fed to the kiln or while hazardous waste residues remain in the kiln.
2. Safeguard devices shall exist so that if the emissions unit or ancillary air pollution control equipment fails to operate properly, waste feed shall immediately cease.
3. Start-up of the kiln shall begin with the heating of the cold combustion zone with only natural gas, diesel fuel or coal/coke. The permittee shall minimize emissions during start-up of the kiln in accordance with the approved PM & MAP. Feeding of waste derived fuel to the kiln shall not commence until the temperature in the kiln combustion zone, as measured by the monitoring device referenced in condition II.C.1, reaches or exceeds that level demonstrated to be necessary to destroy each POHC, as defined in section II.B.1.

(Lafarge shall identify all start-up time periods and fuel-type in the quarterly reports.)

4.
  - a. Waste-derived fuel shall be injected only at the hot (clinker discharge) end of the kiln.
  - b. Waste-derived fuels shall not be injected into the kiln during periods of shutdown or process upset.
  - c. Only waste-derived fuel having a heat content of greater than or equal to 5,000 BTUs/pound may be burned in this kiln unless it can be demonstrated that the waste-derived fuel can provide useable heat for the process.
  - d. At no time shall waste materials be fed to the kiln unless the temperature in the kiln combustion zone has reached the minimum temperature established during the most recent certification of compliance and all parameters tied to the inter-lock system are in compliance with the levels established in accordance with condition II.B.6 of this permit to operate.
  - e. Waste derived-fuel shall not be injected into the kiln if the continuous temperature monitoring and recording device as defined in condition II.C.1, continuous emissions monitoring systems including carbon monoxide/oxygen (CO/O<sub>2</sub>) as defined in condition II.C.14, or total hydrocarbons (THC) as defined in condition II.C.15, and continuous opacity monitoring system (COMS) as defined in condition II.C.13 are not operating properly in accordance with 40 CFR Part 60, Appendix F, or the approved Quality Assurance/Quality Control Plan. Monitor downtime (improper operation) is defined as anytime a CEMS can not provide valid, quality-assured data due to a malfunction or failure of any quality assurance test as defined in 40 CFR Part 60, Appendix F. Monitor downtime periods begin when the CEMS experiences a malfunction or fails a quality assurance test and end when the CEMS successfully completes a subsequent quality assurance test.
  - f. Waste-derived fuel that is to be burnt in the kiln shall conform to the specifications listed in Schedule A (Specifications of Blended Waste-Derived Fuel), section II.F.2 of this permit.
5. The permittee shall comply with all State and federal laws and regulations including, but not limited to, the Toxic Substances Control Act of 1979. No polychlorinated biphenyls (PCB's) in excess of 50 parts per million shall be combusted at the Paulding facility unless the permittee obtains an Ohio EPA permit to install (PTI). No herbicides, pesticides, rodenticides, insecticides, or high-level or low-level radioactive wastes or other materials shall be combusted in violation of State and federal laws and regulations.
6. The permittee shall maintain an automatic hazardous waste feed cut-off system (interlocks) that shall be engaged when the levels established during the most recent certification of compliance test as identified in Schedule B, section II.F.3. of this permit are not maintained. The interlocks shall be tied to the following parameters: combustion chamber temperature, CO, THC, waste-derived fuel flow rate, raw material feed, operation of cement kiln dust recovery system (P025 & P026), precipitator power (if applicable), precipitator inlet temperature (if applicable), and pressure drop across the baghouse (if applicable). All interlock values except the operation of the cement kiln dust recovery system are based on rolling hourly averages.
7. The pressure drop across the baghouse shall be maintained in accordance with the limit, as defined in Schedule B, condition II.F.a.ii while the emissions unit is in operation.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitoring and recording device that measures and records the combustion zone temperature of the kiln and shall be operated at all times while the kiln is in operation. The continuous temperature monitoring device and recorder shall be calibrated annually and have an accuracy of + or - 1% of the temperature being measured and recorded.
2. The permittee shall operate and maintain a continuous flow monitoring and recording device that measures and records the total volumetric flow through the kiln. The monitoring of the flow rate shall take place at a location representative of volumetric flow through the kiln.
3. The operation of this emissions unit and the associated air pollution control equipment shall be monitored and recorded on a continuous basis.
4. The permittee shall maintain daily records of the maximum production rates while producing clinkers, in tons.
5. Chemical analyses of the blended waste-derived fuel fed to the kiln shall be conducted daily. The analyses shall be performed in accordance with the test methods specified in OAC rule 3745-54-13 and/or 40 CFR Part 264.13, as applicable, and, at a minimum, shall include the analyses of the following:
  - a. Heat value (BTU/lb) of waste-derived fuel.
  - b. Halogen content and sulfur content, in weight percent (wt %).
  - c. Concentrations (PPM) of metals listed in Schedule A, section II.F.2., in ppm.
  - d. Polychlorinated biphenols (PCB) concentration, in PPM.
  - e. Benzene concentration, in wt %.
  - f. pH.

Additionally, an analysis for total suspended solids (TSS) contained in the blended waste-derived fuel shall be conducted on a weekly basis.

If no materials have been added to the blended waste-derived fuel being fed to the kiln, the chemical analyses from the previous day will be sufficient to demonstrate compliance with this condition.

6. A minimum sample of 100 milliliters (ml) shall be taken from each batch of blended-waste derived fuel. Each sample shall be saved for a period of at least 90 days.

Any sample or measurement taken for the purpose of monitoring shall be a representative sample or measurement, as such term is defined and used in the Ohio hazardous waste rules. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of OAC rule 3745-51-20, Laboratory Methods. Laboratory methods must be those specified in Test Methods for the Evaluation of Solid Waste: Physical/Chemical Methods, SW-846, November 1986, and additional supplements or editions thereof; or any equivalent methods as specified in the approved waste analyses plan or as such term is defined and used in the Ohio hazardous waste rules.
7. The records of sampling and monitoring information required in conditions II.C.5. and II.C.6. above shall specify the following:
  - a. the date(s), source of sample, time(s) and method(s) of sampling or measurement;
  - b. the individual(s) who collected the sample or performed the measurements;
  - c. the date(s) analyses were performed;
  - d. the individual(s) who performed the analyses;
  - e. the analytical technique(s) or method(s) used; and
  - f. the results of such analyses.
8. For quality assurance purposes, the Director may at his discretion, require that the permittee submit samples to an independent laboratory, other than Systech, for detailed chemical analyses for any or all of the constituents listed in Schedule A, condition II.F.2. The samples may include any materials retained as a requirement of condition II.C.6 or any sample taken at the point of generation. The frequency for these independent analyses, which shall be conducted at the permittee's expense, shall not exceed four (4) per year under normal operating conditions.
9. Within thirty (30) days of the issuance of this permit, the permittee shall submit a plan for random testing of the samples retained as a requirement of condition II.C.6. by an independent laboratory, other than Systech. The plan should require the independent laboratory to analyze the random samples for the parameters listed in condition II.C.5. and have the results submitted concurrently to the appropriate Ohio EPA District Office or local air agency and to the permittee.
10. A record of the materials received for burning at the facility shall be maintained daily by the permittee. The record shall contain, as a minimum, the following information:
  - a. name and address of the company from which the material was received;
  - b. name, address, and location of the company and facility from which the material was generated or blended;
  - c. date the material was received;
  - d. amount of material and type of container; and
  - e. description of the material including chemical composition.
11. The permittee shall maintain a record of the materials burned in this emissions unit. At a minimum, the record shall contain data necessary to determine the following information for each hour of operation:
  - a. the total hourly mass feed rate of waste derived fuel to this emissions unit, in tons;
  - b. the total heat input to this emissions unit measured and recorded on a one-minute basis;
  - c. heat content (BTU/lb) of waste-derived fuel for each batch of waste-derived fuel added to the waste-derived fuel feed tank;
  - d. waste-derived fuel percent of total BTU input as measured and recorded on a one-minute basis by the plant automation system;
  - e. a daily analysis of the maximum hourly chlorine content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C;
  - f. a daily analysis of the maximum hourly sulphur content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C;
  - g. a daily analysis of the maximum hourly lead content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C; and
  - h. a daily analysis of the maximum hourly mercury content of the material fed to this emissions unit, as demonstrated using the calculations identified in Schedule C.
12. The permittee shall maintain daily records that contain the following information on fuel usage:
  - a. tons of waste derived fuel injected into the kiln;
  - b. tons of coal fed to the kiln;

- c. tons of coke fed to the kiln; and
- d. the average heat content (BTU/lb) of coal and coke (to be determined on a weekly basis from a composite of daily samples).
13. a. Within one-hundred eighty (180) days of the effective date of this permit, the permittee shall install, operate and maintain a continuous opacity monitoring system (COMS) in accordance with 40 CFR Part 60 requirements to measure and record the visible particulate emissions from this emissions unit. In addition to demonstrating compliance with the requirements specified in 40 CFR Part 60, all acceptable continuous opacity monitoring systems (COMS) 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 EPA 450/4-92-010.
- (The percentage of opacity, as a six-minute block average, shall be determined from the data obtained from the continuous opacity monitoring system.)
- b. Within sixty (60) days of installation, the permittee shall certify the COMS in accordance with 40 CFR Part 60, Appendix B, Performance Specification 1 (PS 1). The appropriate Ohio EPA District Office or local air agency shall be afforded thirty (30) days notice in order to witness the tests.
- c. Within thirty (30) days of completing the certification tests required by PS 1, the permittee shall submit two (2) copies of the test results, one to the appropriate Ohio EPA District Office or local air agency and one to the Ohio EPA, DAPC, Central Office.
- d. Within one hundred eighty (180) days of the effective date of this permit, the permittee shall submit a written quality assurance/quality control plan for the COMS designed to ensure the validity and representativeness of the opacity readings. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of PS 1 are maintained on a continuous basis. A logbook dedicated to the COMS must be kept on-site and available for inspection during normal business hours.
- e. The COMS shall undergo the certification tests as required by PS 1 whenever an opacity monitor or related peripherals of the COMS are replaced or modified in such a way that significantly affects the ability of the system to measure or record the opacity of this emissions unit.
- f. On a quarterly basis, the permittee shall conduct a performance audit linearity check using an audit jig with NIST certified neutral density filters in accordance with the procedures specified in U.S. EPA document, EPA 450/4-92-010. Should the COMS fail to achieve the calibration error percentage required by 40 CFR Part 60, Appendix B, PS 1, Table 1-1, the COMS shall be recalibrated and acceptable results verified by a successful performance audit linearity check.
- g. The permittee shall maintain a file of all measurements, data, reports and any other activities involving this COMS in a form suitable for inspection.
14. a. The permittee shall operate and maintain a continuous emission monitoring system (CEMS) to measure and record CO emissions and oxygen (O<sub>2</sub>) concentrations from this emissions unit in accordance with 40 CFR Part 60 and appendices thereto. The CEMS consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, the analyzers and data recording/processing hardware and software. The CEMS shall be maintained and operated in accordance with 40 CFR Part 60, Appendix F.
- b. The permittee shall perform the quality assurance requirements in accordance with an approved Quality Assurance/Quality Control Plan for the CEMS. The appropriate Ohio EPA District Office or local air agency and Central Office must be provided at least thirty (30) days notification of the date(s) of the annual performance specification test so as to provide the opportunity to witness the tests.
- c. The permittee shall submit two (2) copies of the annual performance specification test results, one to the appropriate Ohio EPA District Office or local air agency and one to the Ohio EPA, DAPC, Central Office within thirty (30) days of conducting the tests in accordance with OAC rule 3745-15-04(A).
- d. Within one hundred eighty (180) days of the effective date of this permit, the permittee shall submit a written quality assurance/quality control plan for the, O<sub>2</sub> and CO CEMS designed to meet the requirements of section 3 of 40 CFR Part 60, Appendix F. A logbook dedicated to each CEMS must be kept on-site and made available for inspection upon request during normal business hours. Any adjustments to the CEMS must be recorded in the log book in accordance with section 4.2 of 40 CFR Part 60, Appendix F. Within sixty (60) days of receipt of any notification of deficiency concerning the quality assurance/quality control plan, the permittee shall submit a revised quality assurance/quality control plan to the Director of the Ohio EPA for approval.
- e. Whenever an O<sub>2</sub> or CO monitor or related peripherals of a CEMS are replaced or modified in such a way that significantly affects the ability of the system to measure or record the emissions of this source, the CEMS shall undergo the performance specification test procedures as required by 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4.
- f. The data obtained from the CEMS shall be used to determine compliance with the applicable hazardous waste feed cut-off set point as identified in Schedule B, condition II.F.3.ii of this permit.
- g. The permittee shall maintain a file of all one-minute average measurements, all raw data, rolling-one hour average measurements, reports and any other activities involving this CEMS in a form suitable for inspection.
15. a. The permittee shall operate and maintain a continuous emission monitoring system (CEMS) for THC. The CEMS consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, the analyzers and data recording/processing hardware and software. The CEMS shall be used to measure and record THC emissions from this emissions unit, in parts per million (ppm).
- b. The permittee shall perform the quality assurance requirements in accordance with an approved Quality Assurance/Quality Control Plan for the CEMS. The appropriate Ohio EPA District Office or local air agency must be provided at least thirty (30) days notification of the date(s) of the annual performance specification test so as to provide the opportunity to witness the tests.
- c. Within one hundred eighty (180) days of the effective date of this permit, the permittee shall submit a written quality assurance/quality control plan for the THC CEMS designed to meet the requirements of section 3 of 40 CFR Part 60, Appendix F. A logbook dedicated to each CEMS must be kept on-site and made available for inspection upon request during normal business hours. Any adjustments to the CEMS must be recorded in the log book in accordance with section 4.2 of 40 CFR Part 60, Appendix F. Within sixty (60) days of receipt of any notification of deficiency concerning the quality assurance/quality control plan, the permittee shall submit a revised quality assurance/quality control plan to the Director of the Ohio EPA for approval.
- d. Whenever a THC monitoring system or related peripherals of a CEMS are replaced or modified in such a way that significantly affects the ability of the system to measure or record the emissions of this source, the CEMS shall demonstrate that the calibration error is less than or equal to 5% of span value and less than 5 ppm at each point and calibration drift not to exceed 3 ppm or 3% of the span value within sixty (60) days of replacement or modification.
- e. The data obtained from the CEMS shall be used to determine compliance with the applicable hazardous

waste feed cut-off set point as identified in Schedule B, condition II.F.3 of this permit.

f. The permittee shall maintain a file of all one-minute average measurements, all raw data, one-hour rolling averages, reports and any other activities involving this CEMS in a form suitable for inspection.

16. a. The permittee shall maintain and operate a continuous emission monitoring system (CEMS) to measure and record the gas stream flowrate from this emissions unit. The flow monitoring device shall be installed at a location representative of volumetric flow through the kiln. The flowrate CEMS shall be capable of meeting the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6 and provide gas stream flowrates in units of actual thousand cubic feet per minute (kcfm).

The data obtained from the CEMS shall be used to determine compliance with the flowrate limitation as defined in condition II.F.3 of this permit.

b. Within one-hundred eighty (180) days of the effective date of this permit, the permittee shall certify the flowrate CEMS in accordance with 40 CFR Part 60, Appendix B, Performance Specification 6. The appropriate Ohio EPA District Office or local air agency and the Ohio EPA, DAPC, Central Office shall be afforded thirty (30) days notice in order to witness the tests.

c. Within thirty (30) days of completing the certification tests required by 40 CFR Part 60, Appendix B, Performance Specification 6, the permittee shall submit two (2) copies of the test results, one copy to the appropriate Ohio EPA District Office or local air agency and one to the Ohio EPA, DAPC, Central Office.

d. The permittee shall maintain the flowrate CEMS in accordance with the quality assurance procedures of 40 CFR Part 60, Appendix F. The Data Accuracy Assessment detailed in section 5 shall consist of an annual relative accuracy test audit (RATA) in accordance with section 5.1.1. Sections 5.1.2 and 5.1.3 do not apply. The written quality control plan, as required under 40 CFR Part 60, Appendix F, section 3, must be submitted within one hundred eighty (180) days of installation for Ohio EPA approval. In addition, the permittee shall conduct a daily interference check of the flowrate CEMS to ensure that the moisture and particulate expected to occur at the monitoring location does not interfere with the proper functioning of the flow monitoring system. Also, the permittee shall conduct a daily check to detect any malfunction of the resistance temperature detector, transceiver or equivalent. The quarterly data assessment reports, as required under 40 CFR Part 60, Appendix F, section 7, shall be submitted to the appropriate DO/LAA within thirty (30) days following the end of each calendar quarter.

e. A logbook dedicated to the flowrate CEMS must be kept on-site and available for inspection upon request during normal business hours.

f. The permittee shall maintain a file of all measurements, data, reports and any other activities involving this CEMS in a form suitable for inspection.

17. a. Within 6 months of the issuance of this permit, the permittee shall submit to the appropriate Ohio EPA District Office or local air agency the standard operating procedures for radioactivity screening of all incoming loads of hazardous waste .

b. The permittee shall install, operate and maintain a Radiation Alert Monitor 4 or another radiation monitor approved by the Director. The facility shall analyze a sample from each incoming load of fuel for radioactive materials. The permittee shall not burn any supplemental fuels in which radioactivity levels detected are greater than background levels. The background levels shall be determined in accordance with the quality control procedures listed in the permittee's Standard Operating Procedure for Radioactivity Screening.

18. a. Within one-hundred-eighty (180) days of the effective date of this permit, the permittee shall install and maintain remote access to a bulletin board system, via modem, for one account at the appropriate Ohio EPA District Office or local air agency and one account at the OEPA-DAPC, Central Office via two (2) or more phone line connections. All accounts will be password protected and will be available for access (viewing and retrieval only) at all times. The system shall not interfere with the operation of the data acquisition system (DAS) and shall provide data identical to the raw and computed data stored in the DAS. The bulletin board system shall provide real time data, defined as one-minute averages unless otherwise specified, in units of the standard (where applicable). This data shall be updated every minute. The data shall be available on the bulletin board system for a minimum period of five (5) working days to provide access to historical data in units that represent compliance standards (where applicable) for the parameters identified in condition II.C.18.b.

b. Data Accessible via telemetry:

High Range CO (dry) ppm (one-minute averages)

Low Range CO (dry) ppm (one-minute averages)

Corrected CO (dry @ 7% O<sub>2</sub>) ppm (one-minute averages updated . each minute)

Corrected CO (dry @ 7% O<sub>2</sub>) ppm (one-hour rolling averages updated . every minute)

O<sub>2</sub> (dry) percent (one-minute block averages)

THC (dry) ppmv (one-minute averages)

Opacity percent (as a six-minute, block averages.)

Flue Gas Flow Rate thousand ACFM

Kiln Comb. Zone Temp. F, one-minute block avg.

Baghouse pressure drop inches of water, one-hour average

Supplemental Fuel Flow Rate tons/hr

Raw Material Feed Rate gallons/minute

c. Any future changes to the bulletin board system shall be submitted for approval to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, DAPC, Central Office prior to implementation.

19. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the

baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on an hourly basis.

**D. Reporting Requirements**

1. The permittee shall report all emissions unit or ancillary air pollution control equipment malfunctions to the appropriate Ohio EPA District Office or local air agency in accordance with OAC rule 3745-15-06.
2. The permittee shall submit deviation (excursion) reports which identify any periods when the temperature of the kiln combustion zone was below the minimum temperature identified in Schedule B, condition II.F.3.a.ii established during the most recent certification of compliance, while waste derived fuels were present in the kiln, as well as the corrective action(s) that were taken to achieve compliance.
3. The company shall submit monthly deviation (excursion) reports which identify any exceedances of all limits specified in Schedule A, condition II.F.2, as well as the corrective action(s) that were taken to achieve compliance. The reports shall be submitted by the 15th of each month and shall cover the previous calendar month.
4. The permittee shall immediately notify the appropriate Ohio EPA District Office or local air agency of any deviation (excursion) of the permit restrictions of waste-derived fuel heat content of 5000 BTUs/lb and/or of any instance of nonconformance with the fuel specifications of this permit.
5. The permittee shall submit deviation (excursion) reports which identify all instances when the parameter in condition II.C.11.c is less than 5,000 BTUs/lb, as well as the corrective action(s) that were taken to achieve compliance.
6. In accordance with 40 CFR Part 60.7 ND 60.13(H), the permittee shall submit deviation (excursion) reports which identify all six-minute averages of opacity in excess of the limitations specified in OAC rule 3745-17-07, as well as the corrective action (s) that were taken to demonstrate compliance. The report shall include the date, time of commencement and completion, time duration, magnitude (% opacity), reason (if known) and corrective action taken (if any) for each exceedance. All monitor downtime while the source was on-line must be documented (date, time, duration and reason) and included in the report along with all corrective actions taken. The source operating time during the reporting period shall be provided along with the date, time, reason and corrective action(s) taken for each time period of source and/or control equipment malfunctions.
7. The permittee shall submit deviation (excursion) reports detailing the date, commencement and completion times, duration, magnitude (ppm), reason (if known), and corrective actions taken (if any) of all rolling one-hour averages above the applicable CO hazardous waste feed cut-off set point as identified in Schedule B, condition II.F.3 of this permit. Any CEMS downtime while the source was on-line must be documented (date, time, duration and reason) and included in the report along with any corrective action(s) taken. The source operating time during the reporting period shall be provided along with the date, time, reason and corrective action(s) taken for each time period of source and/or control equipment malfunctions.
8. The permittee shall submit deviation (excursion) reports detailing the date, commencement and completion times, duration, magnitude (ppmv), reason (if known), and corrective actions taken (if any) of all rolling one-hour averages above the applicable THC hazardous waste feed cut-off set point as identified in Schedule B, condition II.F.3 of this permit. Any CEMS downtime while the source was on-line must be documented (date, time, duration and reason) and included in the report along with any corrective action(s) taken. The source operating time during the reporting period shall be provided along with the date, time, reason and corrective action(s) taken for each time period of source and/or control equipment malfunctions.
9. The permittee shall submit monthly deviation (excursion) reports which list any automatic waste feed cut-offs that occurred during the month, the reason(s) for the automatic cutoffs, and any corrective measures taken to prevent or minimize the recurrence of the automatic cutoffs. These reports shall be due by the 15th of each month, and shall cover the previous calendar month. If no automatic waste feed cutoffs occurred, a report stating that fact is required.
10. The permittee shall submit two (2) copies of the annual performance specification test results, one copy to the appropriate Ohio EPA DO or LAA and one to the Ohio EPA, DAPC, Central Office within thirty (30) days of conducting the tests.
11. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the minimum allowable limit, as defined in Schedule B, condition II.F.a.ii.

**E. Testing Requirements**

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted 6 months prior to permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the limits of 0.08 grain PM/dscf and 75 lbs PM/hr.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to permit renewal, or no later than July 30, 1999.
  - b. The emission testing shall be conducted to demonstrate compliance with the destruction and removal efficiency (DRE) of the principal organic hazardous constituents (POHCs) of 99.99%. A minimum of two (2) POHCs shall be selected for the test and shall be approved by the Ohio EPA prior to testing.
  - c. The permittee shall submit to the Ohio EPA for approval, at least sixty days (60) days prior to the test, the methodologies by which compliance will be demonstrated.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate of 43 lbs sulfur dioxide/ton cement produced.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 6 of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

4. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted annually.
  - b. The emission testing shall be conducted to determine the mass emission rates of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, mercury, and hydrogen chlorides.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
    - i. For antimony, arsenic, barium, beryllium, cadmium, chromium, lead, silver, mercury, and thallium use method 29 of 40 CFR Part 60, Appendix A.
    - ii. For hydrogen chlorides use method 26A of 40 CFR Part 60, Appendix A.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation

of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

5. Compliance Methods Requirements:

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

a. Emission Limitation:  
20% opacity, as a 6-minute average

Applicable Compliance Method:  
The data obtained from the certified continuous opacity monitoring system and USEPA Methods shall be used to demonstrate compliance with the above opacity limit.

6. Compliance with the input feed rate limits identified in Schedule B, condition II.F.a.i shall be demonstrated in accordance with the procedures identified in Schedule C.

F. **Miscellaneous Requirements**

1. The Director reserves the right to require that the minimum temperature in the kiln combustion zone be higher than the minimum temperature established during the most recent certification of compliance during the combustion of certain or all waste materials.

2. SCHEDULE A:

SPECIFICATIONS OF BLENDED WASTE-DERIVED FUEL

Heat Content 5,000 BTU per pound minimum

Suspended Solids 30% maximum

Sulfur 3% sulfur

Halogens 5% maximum

Inorganic Acids and Bases extractable pH between 4.0 and 11.0

Water 1% maximum as separated phase

Metals:

COMPOUND MAXIMUM CONCENTRATION DATE ESTABLISHED  
(PPM)

Antimony 3,500 July 1995

Arsenic 600 July 1995

Barium 5,000 July 1995

Beryllium 25 July 1995

Cadmium 450 July 1995

Chromium 2,000 July 1995

Lead 4,000 July 1995

Mercury 500 July 1995

Silver 32,000 July 1995

Thallium 400 July 1995

Zinc 3,000

PCB <50

Benzene <0.5 weight percent

3. a. SCHEDULE B:

SPECIFICATIONS OF MASS INPUT FEED RATES  
& INTERLOCK WASTE FEED CUT-OFF LIMITS

i. MASS INPUT FEED RATES

The mass input rates of metals and chlorine/chloride from the "waste-derived fuel" from all input streams as determined by 40 CFR Part 266 feed rate limits, shall not exceed the mass input rates (as indicated below) established during the most recent certification of compliance for the following metals on a rolling hour basis as defined in 40 CFR Part 266.102 (e) (6) (I) (B). The mass input feed rate limits identified below shall be updated to reflect the most recent input rates established during the most recent certification of compliance within ninety

(90) days of completion of the certification of compliance test.

COMPOUND INPUT FEED RATE(lbs/hr) DATE ESTABLISHED

Antimony 34.17 July 1995  
 Arsenic 6.53 July 1995  
 Barium 5709.97 July 1995  
 Beryllium 1.11 July 1995  
 Cadmium 2.03 July 1995  
 Chromium 16.60 July 1995  
 Lead 24.47 July 1995  
 Mercury 9.13 July 1995  
 Silver 341.72 July 1995  
 Thallium 5.71 July 1995  
 Chlorine/Chloride 264.55 July 1995

ii. INTERLOCK WASTE FEED CUT-OFF LIMITS

The permittee shall maintain an automatic hazardous waste feed cut off system (interlocks) that shall be engaged when the levels established during the most recent compliance certification test as identified below are not maintained. All interlock values are based on rolling hourly averages. The Interlock values identified below shall be updated to reflect the most recent applicable values established during the most recent certification of compliance within ninety (90) days of completion of the certification of compliance test.

PARAMETER WASTE FEED CUT OFF DATE ESTABLISHED

minimum combustion 2253 F July 1995  
 zone temperature

CO (maximum) 263 ppmv (ppm @ 7% O<sub>2</sub>) July 1995

THC compounds 20 ppmv July 1995

(maximum)

waste derived fuel 6.17 tons/hr July 1995  
 flow rate (maximum)

raw material feed 235 gpm July 1995  
 production rate (maximum)

baghouse pressure drop 5.72 inches of water May 1997

(minimum)

b. Pursuant to PTI #03-8500, any visible emissions associated with the operation of emissions units P025 and/or P026 shall result in the cut-off of waste derived fuel until compliance with BAT and the provisions of all effective permits is achieved.

4. SCHEDULE C (separate attachment)