# STATE OF MISSISSIPPI
# AIR POLLUTION CONTROL
# TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

**THIS CERTIFIES THAT**

**Holcim (US), Inc.**
**8677 Highway 45 S. Alt.**
**Artesia, Mississippi**
**Lowndes County**

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

**Permit Issued:** December 29, 2004

**Effective Date:** As specified herein.

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**

**AUTHORIZED SIGNATURE**
**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Expires:** November 30, 2009 **Permit No.:** 1680-00025

**Modified:** November 30, 2005 **(Add Pet Coke as Fuel)**

**Modified:** JUL 13 2006 **(Change to Testing Schedule)**

973 PER20050003

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## SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: APC-S-6, Section III.A.6.a.)

1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Ref.: APC-S-6, Section III.A.6.b.)

1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: APC-S-6, Section III.A.6.c.)

1.4 This permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-6, Section III.A.6.d.)

1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: APC-S-6, Section III.A.6.e.)

1.6 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref.: APC-S-6, Section III.A.5.)

1.7 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation APC-S-6.

(a) For purposes of fee assessment and collection, the permittee shall elect for actual or

allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgements where such judgements are derived from process and/or emission data which supports the estimates of maximum actual emission. (Ref.: APC-S-6, Section VI.A.2.)

(b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: APC-S-6, Section VI.A.2.) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: APC-S-6, Section VI.D.2.)

(c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: APC-S-6, Section VI.D.)

(d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: APC-S-6, Section VI.C.)

1.8 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (Ref.: APC-S-6, Section III.A.8.)

1.9 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: APC-S-6, Section II.E.)

1.10 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:

(a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

(b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. (Ref.: APC-S-6, Section III.C.2.)

1.11 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere. (Ref.: APC-S-1, Section 3.9(a))

1.12. Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970. (Ref.: APC-S-1, Section 3.9(b))

1.13 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source. (Ref.: APC-S-6, Section III.F.1.)

1.14 Nothing in this permit shall alter or affect the following:

(a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;

(b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.

(d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act. (Ref.: APC-S-6, Section III.F.2.)

1.15 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan. (Ref.: APC-S-6, Section III.H.)

1.16 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application. (Ref.: APC-S-6, Section IV.C.2., Section IV.B., and Section II.A.1.c.)

1.17 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:

(a) the changes are not modifications under any provision of Title I of the Act;

(b) the changes do not exceed the emissions allowable under this permit;

(c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:

(1) a brief description of the change(s),

(2) the date on which the change will occur,

(3) any change in emissions, and

(4) any permit term or condition that is no longer applicable as a result of the change;

(d) the permit shield shall not apply to any Section 502(b)(10) change. (Ref.: APC-S-6, Section IV.F.)

1.18 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in Regulation APC-S-3, "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. (Ref.: APC-S-3)

1.19 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations APC-S-2, "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment", and may require modification of this permit in accordance with Regulations APC-S-6, AAir Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act@. Modification is defined as "[a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

(a) routine maintenance, repair, and replacement;

(b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

(c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;

(d) use of an alternative fuel or raw material by a stationary source which:

(1) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or

(2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;

(e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or

(f) any change in ownership of the stationary source."

1.20 Any change in ownership or operational control must be approved by the Permit Board. (Ref.: APC-S-6, Section IV.D.4.)

1.21 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission. (Ref.: APC-S-6, Section III.B.1)

1.22 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

(a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.

(b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.

(c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator. (Ref.: APC-S-1, Section 3.7)

1.23 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies.

(a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.

(c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
(2) the permitted facility was at the time being properly operated;
(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
(4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein. (Ref.: APC-S-6, Section III.G.)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, shutdowns and maintenance.

(a) Upsets (as defined by APC-S-1, Section 2.34)

(1) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(i) an upset occurred and that the permittee can identify the cause(s) of the upset;

(ii) the source was at the time being properly operated;

(iii) during the upset the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(iv) the permittee submitted notice of the upset to the DEQ within 5 working days of the time the upset began; and

(v) the notice of the upset shall contain a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.

(2) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

(3) This provision is in addition to any upset provision contained in any applicable requirement.

(b) Startups and Shutdowns (as defined by APC-S-1, Sections 2.31 & 2.26)

(1) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows:

(i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above;

(ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such

that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or

(iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.

(2) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.

(3) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply.

(c) Maintenance

(1) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following:

(i) the permittee can identify the need for the maintenance;

(ii) the source was at the time being properly operated;

(iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(iv) the permittee submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and

(v) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.

(2) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.

(3) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply.

(Ref.: APC-S-1, Section 10)

1.25 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in Regulation APC-S-1, Section 8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

## SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

| Emission Point | Description |
|---|---|
| AA-000 | Portland Cement plant |
| AA-001 | Wet process cement kiln with electrostatic precipitator (Facility Reference No. s-26) |
| AA-002 | Clinker Cooler with baghouse (Facility Reference No. s-30) |
| AA-003 | Primary Crushing and handling with baghouse (Facility Reference Nos. s-5 & s-6), quarry drilling (Facility Reference No. s-2),quarry truck loading (Facility Reference No. s-3), truck unloading into primary crusher hopper (Facility Reference No. s-4), tunnel belt to the high rock belt transfer (Facility No. s-7) |
| AA-004 | Raw materials grinding and storage which includes: storage and handling of raw materials in the Raw Materials and the Mill building (Facility Reference Nos. s-8, s-9, s-12, s-14, s-16 thru s-25), raw materials storage piles outside the raw materials building (Facility Reference Nos. s-10, s-11, s-13, s-15), gypsum, anhydrite, and clinker reclaim piles and reclaim, reclaim clinker transfer (Facility Reference Nos. s-77 & s-78), sand transfer, sweet limestone, iron ore, bag shipping, bulk shipping, slurry thinner, grinding aid, gypsum molds, and dust emissions generated by on site truck traffic. |
| AA-005 | Coal handling and storage system (Facility Reference Nos. S-33, 34, 35 & 36) |
| AA-006 | Clinker Storage and handling which includes: clinker transfer system with baghouse (Facility Reference No. s-31), the clinker belt to east & west bucket elevators (Facility Reference No. s-47) and to clinker silo drag chain baghouse (Facility Reference No. s-49), the material (gypsum, reclaim clinker anhydrite, clinker) handling system on top of the clinker silos A-H with baghouse (Facility Reference Nos. s-44, s-45, s-48, s-50), clinker transfer system with baghouse (Facility Reference No. s-32), transfer from silos E,F,G, and H to weigh feeders to finish mills with baghouse (Facility Reference No.s-52), transfer from clinker silos A,B,C & D to the finish mill feed belt with baghouse (Facility Reference No. s-51) |
| AA-008 | Finish milling, storage, and bagging which includes: finish mill system with baghouse (Facility Reference No. s-53), #1 transfer from pneumatic system to cement silos with baghouse (Facility Reference No. s-54), #2 transfer from pneumatic system to cement silos with baghouse (Facility Reference No. s-55), #3 transfer from pneumatic system to cement silos with baghouse (Facility Reference No. s-56) |
| AA-009 | Shipping which includes: cement load-out to cement bin with baghouse (Facility Reference No. s-57), cement load-out to trucks with baghouse (Facility Reference No. s-58), cement load-out to trains with baghouse (Facility Reference No. s-59) |
| AA-010 (IA)* | Laboratory activities baghouse ( * Reclassified as Insignificant Activity in 2003) |
| AA-011 | Cement kiln dust handling and transfer with baghouse (Ref. Nos. s-27 & s-28) |
| AA-012 | Note: Formally a 7500 gallon waste fuel trailer, no longer a permitted source |

| Emission Point | Description |
|---|---|
| AA-013 | Decommissioned air compressor (S-64) |
| AA-014 | Decommissioned air compressor (S-65) |
| AA-015 | 0.471 MMBTUH (200 hp) auxiliary kiln drive (Facility Reference No. s-66) |
| AA-016 | Decommissioned water blaster (S-67) |
| AA-017 | Power washer (Facility Reference No. s-68) |
| AA-018 | #1 welder (Facility Reference No. s-69) |
| AA-019 | #2 welder (Facility Reference No. s-70) |
| AA-020 | Decommissioned welder (S-71) |
| AA-021 | Decommissioned concrete mixer (S-72) |
| AA-022 | Decommissioned castable mixer (S-73) |
| AA-023 | Waste fuel delivery system to kiln (Facility Reference Nos. s-76 & v-3) |
| AA-024 | 1000 gallon gasoline storage tank (S-74) |
| AA-025 | The carbon canister system which controls emissions from the following storage, blending and burn tanks: four 39,000 gallon waste fuel tanks and two 97,000 gallon waste fuel tanks (Facility Reference No. s-75) |
| AA-026 | 10 MMBTUH Vaporizer (Facility Reference No. S-79) |
| AA-027 | Air Compressor with a 115 Hp (0.293 MMBTUH/hr) diesel engine (Facility Reference No. S-84) |
| AA-028 | Fire Control system with a 265 Hp (0.675 MMBTUH/hr) diesel engine (Facility Reference No. S-85) |
| AA-029 | 19.5 MMBTUH/hr Auxiliary generator, diesel-fired (Facility Reference No. S-86) |
| AA-030 | Gypsum, anhydrite and clinker reclaim system and reclaim piles (Facility Reference Nos. S-37 thru S-43) |
| AA-031 | Portable clinker loading unit (Facility Reference No. S-88) |
| AA-032 | Synthetic gypsum transport unit (Facility Reference No. S-89) |

# SECTION 3. EMISSION LIMITATIONS & STANDARDS

## (A) Facility-Wide Emission Limitations & Standards

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

(a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one-hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

(Ref.: APC-S-1, Section 3.1)

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets. (Ref.: APC-S-1, Section 3.2)

B. Emission Point Specific Emission Limitations & Standards

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-000 | 40 CFR 60, Subparts A & F | 3.B.1 | PM | N/A |
| | 40 CFR 61.340, Subpart FF | 3.B.2 | Benzene Waste Operations | N/A |
| | 40 CFR 61, Subpart V | 3.B.35 | VHAP | N/A |
| | Construction Permit issued April 27, 1993 | 3.B.3 thru 3.B.6 | N/A | N/A |
| | 40 CFR 63, Subpart EEE | 3.B.24 | Hazardous Waste HAP's | N/A |
| | 40 CFR 63, Subpart LLL | 3.B.24 | HAP's | N/A |
| | 40 CFR 63, Subpart PP | 3.B.36 | VHAP | N/A |
| AA-001 | 40 CFR 63.1204(a)(6)-(7) | 3.B.30 | PM | 0.30 lb/ton of feed (dry basis) |
| | 40 CFR 63.143(b)(1)-(3) | | | |
| | APC-S-1 Section 4.2(a) | 3.B.21 | $SO_2$ | 2000 ppm |
| | Construction Permit modified on August 20, 2004. | 3.B.37 | NOx | 10 lbs/ton of clinker produced |
| | | | | 2,625 tons/year |
| | Construction Permit modified on August 20, 2004. | 3.B.38 | Clinker Production | 525,000 tons of clinker per any consecutive 12-month period |
| | Construction Permit issued April 27, 1993 (Changed metals to match HWC MACT) | 3.B.7, 3.B.8, 3.B.11 thru 3.B.13, 3.B.22, and 3.B.23 | LVM, SVM, Mercury, HCL, ash content, PCBs, organic compounds, heat content, Cl Feedrate, MTEC, waste-derived fuel feed rate | See tables below. |
| | 40 CFR Part 63, Subpart EEE (upon notification of compliance and when hazardous waste as defined in §261.3 is in the combustion chamber (cement kiln). | 3.B.25 | Hg<br><br>Dioxins/Furans | 120 micrograms/dscm corrected to 7% $O_2$<br><br>0.20 nanograms TEQ/dscm corrected to 7% $O_2$<br>or<br>0.40 nanograms TEQ/dscm corrected to 7% $O_2$ provided combustion temperature is 400 °F or lower based on the average of the test run's average temperature at inlet to the dry PM control device |

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-001 (Continued) | 40 CFR Part 63, Subpart EEE (upon notification of compliance and when hazardous waste as defined in §261.3 is in the combustion chamber (cement kiln). | 3.B.25 (Continued) | Lead/Cadmium (Semivolatile Metals)<br><br>Arsenic, beryllium, and chromium (Low Volatile Metals) | 330 micrograms/dscm combined emissions corrected to 7% $O_2$<br><br>56 micrograms/dscm corrected to 7% $O_2$ |
| | | 3.B.26 | CO<br><br>or<br><br>THC | 100 ppm by volume over an hourly average on dry basis corrected to 7% $O_2$<br><br>20 ppm by volume over an hourly average on a dry basis corrected to 7% $O_2$ |
| | | 3.B.27 | HCl and $Cl_2$ | 130 ppm by volume combined emissions expressed as HCl equivalents on a dry basis, corrected to 7% $O_2$ |
| | | 3.B.27 and 3.B.29 | Opacity | 20% |
| | | 3.B.28 | DRE | 99.99% for each POHC designated |
| | | 3.B.33 | Combustion System Leaks | Control combustion system leaks of HAP |
| | 40 CFR Part 63, Subpart LLL (upon notification of compliance and during periods that non-hazardous is being feed to the cement kiln) | 3.B.29 | Dioxins/Furans | 0.20 nanograms/dscm ($8.7x10^{-11}$ gr/dscf) TEQ corrected to 7% $O_2$<br>or<br>0.40 nanograms TEQ/dscm corrected to 7 % $O_2$ provided combustion temperature is 400□F or lower based on the average of the test run's average temperature at the inlet to the dry PM control device |
| | | 3.B.32 | Waste Derived Fuel | Automatic cutoff mechanism so that the waste derived fuel is automatically shut off when certain conditions occur |
| AA-002 | 40 CFR 63, Subpart LLL | 3.B.30 | PM | 0.050 kg/Mg (0.10 lb/ ton) of feed on dry basis to kiln |
| AA-002<br>AA-006,<br>AA-008,<br>AA-009,<br>AA-011,<br>AA-030,<br>AA-031,<br>AA-032 | APC-S-1, Section 3.6(a) | 3.B.15<br>&<br>1.19 | PM | $E = 4.1p^{-0.67}$<br>or<br>as otherwise limited by facility modification restrictions |

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-002, AA-004, AA-006, AA-008, AA-009, AA-011, AA-030, AA-031, AA-032 | 40 CFR 63, Subpart LLL (Emission point AA-010 is excluded from 40 CFR 63, Subpart LLL) | 3.B.31 | Opacity | < 10% |
| AA-015, AA-017, AA-018, AA-019, AA-027, AA-028 | APC-S-1, Section 3.4.A.1 | 3.B.16 & 1.19 | PM | 0.6 lbs/MMBTUH or as otherwise limited by facility modification restrictions |
| | APC-S-1, Section 4.1(a) | 3.B.17 & 1.19 | $SO_2$ | 4.8 lbs/MMBTUH or as otherwise limited by facility modification restrictions |
| AA-025 | Construction Permit issued April 27, 1993 | 3.B.9, 3.B.10, 3.B.14 | Fuel | See conditions for fuel restrictions |
| | 40 CFR 61.240 (40 CFR 63, Subpart V) | 3.B.35 | VHAP | Equipment Leak Standards |
| AA-026 and AA-029 | APC-S-1, Section 4.1(a) | 3.B.17 | $SO_2$ | 4.8 lbs/MMBTU |
| | APC-S-1, Section 3.4(a)2 | 3.B.34 | PM | $E = 0.8808 * I^{-0.1667}$ |

3.B.1 The permittee is subject to and shall comply with the New Source Performance Standards for Portland Cement Plants as defined in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60, Subpart F, including the continuous opacity monitoring as defined in 40 CFR 60.63. (Ref.: 40 CFR 60.63. 40 CFR 63, Subpart LLL subsumes 40 CFR 60, Subpart F)

3.B.2 The permittee is subject to and shall comply with the National Emission Standard for Benzene Waste Operations as defined in 40 CFR 61.340, Subpart FF. (Appendix C) (Ref.: 40 CFR 61.340. FF exempts 40 CFR 63, Part DD)

3.B.3 Condition moved to 5.B.41.

3.B.4 Condition moved to 5.B.42.

3.B.5 Condition moved to 5.B.43.

3.B.6 The permittee shall minimize dust from truck traffic on unpaved access and in-plant roads by water sprinkling or equivalent when conditions warrant.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.7 For Emission Point AA-001, while hazardous waste-derived fuel is being fired, the permittee shall not discharge or cause combustion gases to be emitted into the atmosphere pollutants per the following table:

| POLLUTANT | MAXIMUM EMISSIONS | REGULATION CITATION(S) |
|---|---|---|
| Low-Volatile Metals, including Arsenic, Beryllium, and Chromium | 56 µg/dscm, combined emissions, corrected to 7% oxygen | 40 CFR 63.1204(a)(4) |
| Semi-Volatile Metals, including Lead and Cadmium | 330 µg/dscm, combined emissions, corrected to 7% oxygen | 40 CFR 63.1204(a)(3) |
| Mercury | 120 µg/dscm, corrected to 7% oxygen | 40 CFR 63.1204(a)(2) |
| Hydrogen Chloride, Hydrochloric Acid and Chlorine Gas (expressed as Hydrochloric Acid Equivalents) | 130 ppm by volume, dry basis, combined emissions, corrected to 7% oxygen | 40 CFR 63.1204(a)(6) |
| Organic Compounds | 0.01% of the quantities in the waste derived fuel | Construction Permit issued on April 27, 1993 |
| Particulate Matter | 0.15 kg per MG of feed, dry basis | 40 CFR 63.1204(a)(7) |
| Opacity | 20% | 40 CFR 63.1204(a)(7) |
| Dioxins and Furans | 0.20 nanograms TEQ/dscm, corrected to 7% oxygen, or<br><br>0.40 nanograms TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial dry particulate matter control device is 400 degrees Fahrenheit or lower based on the average test run average temperatures | 40 CFR 63.1204(a)(1) |

(Ref: 40 CFR 63.1204(a)(1-7), Subpart EEE. Part EEE subsumes 40 CFR 63. 1343, Part LLL)

3.B.8 For Emission Point AA-001, the permittee is allowed to burn hazardous waste derived fuel, tire derived fuel, petroleum coke, hazardous and/or non-hazardous (supplemental fuel), that meets the following specifications for each type of fuel in the rotary kiln (Emission Point 001).

| Hazardous Waste Fuel Specifications | |
|---|---|
| Constituent | As-Burned Specification |
| Heat Content, Btu/lb | ≥ 8000 |
| Ash, % | ≤ 20.0 |
| PCB's, ppm | <50 |

| Non-hazardous Waste Fuel Specifications (e.g. tire-derived fuel, used oil, and other solid & liquid fuels | |
|---|---|
| Constituent | As-Burned Specification |
| Heat Content, Btu/lb | ≥ 5000 |
| Ash, % | ≤ 40.0 |

In addition, the feed rates of the following constituents shall be limited on a 12-hour rolling average basis as indicated below:

| Operating Parameter | Units | HWC MACT Limit | Basis |
|---|---|---|---|
| Maximum Chlorine Feed Rate | 12-HRA g/hr | ≤ 222,962 | 2001 CP Test |
| | 12-HRA lb/hr | ≤ 491.6 | 2001 CP Test |
| Maximum Low-volatility metals (LVM) from all feed streams | 12-HRA g/hr | ≤16,356 | 2001 CP Test |
| | 12-HRA lb/hr | ≤ 36.1 | 2001 CP Test |
| Maximum Low-volatility metals (LVM) from pumpable feed streams | 12-HRA g/hr | ≤ 14,110 | 2001 CP Test |
| | 12-HRA lb/hr | ≤ 31.1 | 2001 CP Test |
| Maximum Semi-volatile metals (SVM) from all feed streams | 12-HRA g/hr | ≤ 23,587 | 2001 CP Test |
| | 12-HRA lb/hr | ≤ 52.0 | 2001 CP Test |
| Maximum mercury (MTEC) emission limit from HWDF only based on current stack flow and Hg mass feed rate | 12-HRA µg/dscm | ≤ 120 | HWM MACT Rule |

(Ref.: 40 CFR 63.1204) (Note: Feed rates match those in Subpart EEE, HWC MACT)

3.B.9 For Emission Point AA-025, hazardous waste derived fuel must be obtained in bulk quantities (tank truck or railcar) from distributors, marketers, and/or generators subject to and in compliance with all requirements of Mississippi and USEPA regulations and standards promulgated for marketers and/or generators of hazardous waste derived fuel. Hazardous waste fuel may only be accepted directly from generators with a current Waste Pre-Qual Form on file at the facility.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.10 Prohibition on burning dioxin-listed wastes. The permittee shall accept only those Hazardous Wastes permitted by RCRA Permit No. MSD077655876.
(Ref.: Construction Permit issued on April 27, 1993 and Miss. Hazardous Waste Management Regulation (MHWMR) Part 261)

3.B.11 For Emission Point AA-001, the permittee shall not fire waste derived fuel at a rate to exceed 57 gal/min on an hourly rolling average or a volume to exceed 28,770,000 gal/yr. Records shall be maintained to document the waste derived fuel rate and cumulative volume consumed for each calendar year. The permittee shall submit a semi-annual report stating the maximum fuel rate in gallons/hour for each period and the total quantity of waste derived fuel burned during that period.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.12 For Emission Point AA-001, an automatic shutoff shall be installed such that waste derived fuel is automatically shut off when any of the following conditions occur:

(a) The kiln's ID fan stops.
(b) The carbon monoxide concentration at the kiln feed end is greater than 1% for more than 60 seconds.
(c) [THIS CONDITION INTENTIONALLY LEFT BLANK.]
(d) The kiln's rotation stops for more than 60 seconds.
(e) The oxygen concentration at the kiln’s stack is less than 0.5% for more than 60 seconds.
(f) The electrostatic precipitator malfunctions or is de-energized for more than 60 seconds.
(g) The raw material feed to the kiln is less 78 TPH on an hourly rolling average.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.13 During startup, shutdown, or unstable kiln conditions, hazardous waste derived fuel shall not be fired until the kiln reaches normal operating temperatures.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.14 Any spillage from the unloading of waste derived fuel at the receiving area shall be promptly managed in accordance with the requirements of the Resource Conservation and Recovery Act.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.15 Except as otherwise specified, Emission Points AA-002 thru AA-006, AA-008, AA-009, AA-011, AA-030, AA-031 and AA-032 shall not cause, permit, or allow the emission from any manufacturing process, in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship:

$$E = 4.1\ p^{0.67}$$

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour.

Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.
(Ref.: APC-S-1. Section 3.6(a))

3.B.16 For Emission Points AA-015, AA-017, AA-018, AA-019, AA-027, and AA-028, the permittee shall not allow particulate emissions from installations of less than 10 million BTU per hour heat input to exceed 0.6 pounds per million BTU per hour heat input.
(Ref.: APC-S-1, Section 3.4,A.1)

3.B.17 For Emission Points AA-015, AA-017, AA-018, AA-019, AA-026, AA-027, AA-028, and AA-029, the permittee shall not allow the maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer to exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.
(Ref.: APC-S-1, Section 4.1(a))

3.B.18, 3.B.19, and 3.B.20 Removed in modification on December 29, 2004.

3.B.21 Emission Point AA-001 shall not cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 2,000 ppm (volume).
(Ref.: APC-S-1, Section 4.2(a))

3.B.22 The permittee shall not burn any radioactive waste.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.23 For Emission Point AA-001, the rotary kiln, the permittee can substitute alternative raw materials or fuel provided it meets the definition of non-hazardous material. However, written notification must be provided to the DEQ prior to using the alternative raw material or fuel. If the use of the raw material or fuel will result in a significant emissions increase (as defined in APC-S-5 or more specifically defined in 40 CFR 52.21(b)(23)) of any pollutant regulated under the Clean Air Act, or a physical modification is required, then a construction permit must be obtained and the Title V Operating permit must be modified prior to using the alternative raw material or fuel.
(Ref.: Construction Permit issued on April 27, 1993)

3.B.24 The permittee is subject to and shall comply with the National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry, 40 CFR Part 63, Subpart LLL and the General Provisions, 40 CFR Part 63, Subpart A. When hazardous waste, as defined by 40 CFR §261.3 is introduced into the combustion chamber of the cement kiln, the permittee shall comply with the NESHAP for Hazardous Waste Combustors, 40 CFR Part 63, Subpart EEE.

3.B.25 This condition is intentionally left blank.

3.B.26 For Emission Point AA-001, while hazardous waste-derived fuel is being fired, the permittee shall limit:

(a) Hydrocarbons in the main stack in excess of 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(b) Carbon monoxide in the main stack in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen.

(Ref.: 40 CFR § 63.1204(a)(5)(ii)(A)-(B), Subpart EEE)

3.B.27 This condition is intentionally left blank.

3.B.28 For Emission Point AA-001, the permittee shall achieve a destruction and removal efficiency (DRE) of 99.99 percent for each principle organic hazardous constituent (POHC).
(Ref.: 40 CFR §63.1204(c), Subpart EEE)

3.B.29 This condition is intentionally left blank.

3.B.30 For Emission Point AA-002, the permittee shall not discharge to the atmosphere any gases which contain particulate matter (PM) in excess of 0.050 kg per MG of feed, dry basis.
(Ref.: 40 CFR §63.1345, Subpart LLL. LLL subsumes 40 CFR 60, Part F. LLL subsumes 40 CFR §63.1204(a)(1-7), Subpart EEE.)

3.B.31 For Emission Points AA-002, AA-004, AA-006, AA-008, AA-009, AA-011, AA-030, AA-031, and AA-032 the permittee shall not cause to be discharged any gases which exhibit opacity greater than 10 percent.
(Ref.: 40 CFR §63.1348, Subpart LLL. LLL subsumes 40 CFR 60, Part F)

3.B.32 For Emission Point AA-001, the permittee shall install an automatic cutoff mechanism so that the hazardous waste-derived fuel is automatically shut off when any of the following conditions occur:

(a) When any operating parameter limit specified under 40 CFR §63.1209 is exceeded;

(b) When any emissions standard monitored by a CEMS is exceeded;

(c) When the allowable combustion chamber pressure is exceeded;

(d) When the span value of any CMS detector, except a CEMS, is met or exceeded;

(e) Upon malfunction of a CMS monitoring an operating parameter limit or an emissions level;

(f) When any component of the automatic waste feed cut-off system (AWFCO) system fails.

(Ref.: 40 CFR §63.1206(c)(3), Subpart EEE)

3.B.33 For Emission Point AA-001, the permittee shall control combustion system leaks of HAP in accordance with the requirements of 40 CFR 63.1206(c)(5).
(Ref.: 40 CFR §63.1206(c)(5), Subpart EEE, as seen in Appendix D)

3.B.34 Emission Points AA-026 and AA-029 shall not exceed a particulate matter emission rate as determined by the relationship

$$E = 0.8808 * I - 0.1667$$

where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour.
(Ref.: APC-S-1, Section 3.4(a)2)

3.B.35 The permittee shall comply with all applicable standards for equipment leaks pursuant to the requirements of National Emission Standard for Equipment leaks (Fugitive Emission Sources) 40 CFR Part 61, Subpart V, as seen in Appendix E.

(a) Each piece of equipment to which 40 CFR 61, Subpart V applies shall be marked in such manner that it can be distinguished readily from other pieces of equipment.
(Ref.: 40 CFR 61.242-1(d))

(b) Each pump to which 40 CFR 61, Subpart V applies shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
(Ref.: 40 CFR 61.242-2(a)(2))

(c) For each pump to which 40 CFR 61, Subpart V applies and when a pump leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Sec. 61.242-10.
(Ref.: 40 CFR 61.242-2(c)(1))

(d) For each pump to which 40 CFR 61, Subpart V applies, a first attempt at a pump leak repair shall be made no later than 5 calendar days after each leak is detected.
(Ref.: 40 CFR 61.242-2(c)(2))

(e) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in Sec. 61.242-1(c). Gases displaced during filling of the sample container are not required to be collected or captured.
(Ref.: 40 CFR 61.242-5(a))

(f) Each closed-purge, closed-loop, or closed-vent system as required in E of this section shall collect and recycle the purged process fluid.
(Ref.: 40 CFR 61.242-5(b)(2))

(g) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph 40 CFR 61.242-6(a) at all other times.
(Ref.: 40 CFR 61.242-6(a)(1) and (2))

(h) Each valve shall be monitored monthly to detect leaks by the method specified in Sec. 61.245(b). When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(Ref.: 40 CFR 61.242-7)

(i) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pressure relief devices in liquid service and connectors, the owner or operator shall monitor the equipment within 5 days by the method specified in Sec. 61.245(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Sec. 61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under Sec. 61.242-7(e).
(Ref.: 40 CFR 61.242-8)

(j) Vapor recovery systems shall be designed and operated to recover the organic vapors vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.
(Ref.: 40 CFR 61.242-11(b))

(k) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected.
(Ref.: 40 CFR 61.242-11(g))

(l) Closed vent systems and control devices used to comply with provisions of 40 CFR 61, Subpart V shall be operated at all times when emissions may be vented to them.
(Ref.: 40 CFR 61.242-11(m))

3.B.36 The permittee shall comply with all applicable standards pursuant to the requirements of National Emission Standards for Containers, 40 CFR 63, Subpart PP, as seen in Appendix G.
(Ref.: 40 CFR 63.920)

3.B.37 The permittee is authorized to operate Emission Point AA-001 in accordance with the following emission limitation:

| | |
|---|---|
| Nitrogen Oxides | 10 lbs/ton of clinker produced, not to exceed 2,625 tons/year, as determined by EPA Reference Method 20, 40 CFR 60, Appendix A, based on a 12-month rolling average. |

(Ref.: Construction Permit issued on April 27, 1993, and modified August 20, 2004)

3.B.38 For Emission Point AA-001, the permittee shall limit clinker production to no more than 525,000 tons of clinker per any consecutive 12-month period.
(Ref.: Construction Permit modified August 20, 2004)

3.B.39 For Emission Point AA-001, the AWFCO system required in 3.B.32 and associated alarms must be tested at least weekly to verify operability.
(Ref.: 40 CFR § 63.1206(c)(3)(vii))

3.B.40 If it is determined that an emission standard has been exceeded during a comprehensive performance test or a confirmatory performance test required in Condition 5.B.2, the permittee shall immediately cease any burning of hazardous waste. Refer to 40 CFR 63.1207(l) for conditions and steps necessary to resume burning of hazardous waste.
(Ref.: 40 CFR 63.1207(l))

C. Insignificant and Trivial Activity Emission Limitations & Standards

| Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|
| APC-S-1, Section 3.6(a) | 3.C.1 & 1.19 | PM | $E = 4.1\ p^{0.67}$ or as otherwise limited by facility modification restrictions |
| APC-S-1, Section 3.4(a)(1) | 3.C.2 & 1.19 | PM | 0.6 lbs/MMBTU, or as otherwise limited by facility modification restrictions |
| APC-S-1, Section 4.1(a) | 3.C.3 & 1.19 | $SO_2$ | 4.8 lbs/MMBTU, or as otherwise limited by facility modification restrictions |

3.C.1 The maximum permissible emission of particulate matter shall not exceed in one hour the total quantities determined by the relationship:

$$E = 4.1\ p0.67$$

Where E is the emission rate in lbs/hr and p is the process weight input rate in tons/hr.

3.C.2 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

3.C.3 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

D. Work Practice Standards

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-000 | Construction Permit issued on April 27, 1993 | 3.D.1 | Hazardous Waste | N/A |

3.D.1 All plant personnel responsible for handling hazardous waste shall have training in hazardous waste spill control and containment to provide rapid response and cleanup of hazardous waste spills occurring within the plant site.
(Ref.: Construction Permit issued on April 27, 1993)

## SECTION 4. COMPLIANCE SCHEDULE

4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.

4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:

(a) the identification of each term or condition of the permit that is the basis of the certification;

(b) the compliance status;

(c) whether compliance was continuous or intermittent;

(d) the method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;

(e) such other facts as may be specified as pertinent in specific conditions elsewhere in this permit. (Ref.: APC-S-6, Section III.C.5.a.,c.,&d.)

# SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

## A. General Monitoring, Recordkeeping and Reporting Requirements

5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.

5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:

(a) the date, place as defined in the permit, and time of sampling or measurements;
(b) the date(s) analyses were performed;
(c) the company or entity that performed the analyses;
(d) the analytical techniques or methods used;
(e) the results of such analyses; and
(f) the operating conditions existing at the time of sampling or measurement.

(Ref.: APC-S-6, Section III.A.3.b.(1)(a)-(f))

5.A.3 Except as otherwise specified herein, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (Ref.: APC-S-6, Section III.A.3.b.(2))

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with APC-S-6, Section II.E. (Ref.: APC-S-6, Section III.A.3.c.(1))

5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) days of the time the deviation began. (Ref.: APC-S-6, Section III.A.3.c.(2))

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.

5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

B. Specific Monitoring and Recordkeeping Requirements

5.B.1 Detailed records shall be maintained at the plant site for the purposes of accomplishing the items listed below:

(a) Every burn tank containing waste-derived fuel shall be analyzed for the items in Paragraph 3.B.8, including aroclor 1242, 1248, 1254, and 1260 (PCB's).

(b) Additionally, once per quarter a sample shall be taken from a randomly selected truck load or railcar of hazardous waste derived fuel and analyzed for each constituent listed in Paragraph 3.B.8, as well as the solvent screen analysis in accordance with EPA Method 8000 and 8015, or their equivalent and for dioxins and furans.

(c) The permittee shall submit a semi-annual report consisting of a summary of all analyses performed during the period. The report shall be submitted no later than 30 days after the end of the reporting period.

(Ref.: Construction Permit issued on April 27, 1993)

5.B.2 The following conditions apply with regard to demonstration of compliance:

(a) The permittee must conduct comprehensive performance tests to demonstrate compliance with the emission standards provided by §63.1204 and establish limits for the operating parameters provided by §63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems. 40 CFR 63.1207(b)(1) The emission standards provided by §63.1204 are outlined in the table below and compliance must be demonstrated during the comprehensive performance test:

| Standard | HWC MACT Standard | Regulatory Citation |
|---|---|---|
| Destruction and Removal Efficiency (DRE) | ≥ 99.99% | 40 CFR 63.1204(c) |
| Hydrocarbons (at 7% oxygen) | ≤ 20 ppm | 40 CFR 63.1204(a)(5)(ii)(A) |
| Dioxin / Furans | 0.2 µg/dscm, or ≤ 0.4 µg/dscm at ≤ 400 °F APCD inlet temp. | 40 CFR 63.1204(a)(1)(ii) |
| Particulate matter | ≤ 0.15 kg/Mg dry feed | 40 CFR 63.1204(a)(7) |
| Opacity (as monitor of PM and ESP performance) | ≤ 20% | 40 CFR 63.1204(a)(7) |
| SVMs – (Lead & Cadmium) | ≤ 330 µg/dscm | 40 CFR 63.1204(a)(3) |
| LVMs – (Arsenic, Beryllium, & Chromium) | ≤ 56 µg/dscm | 40 CFR 63.1204(a)(4) |
| Mercury | ≤ 120 µg/dscm MTEC from HWDF only | 40 CFR 63.1204(a)(2) |
| Hydrochloric acid and chlorine gas (as HCL) | ≤ 130 ppmv | 40 CFR 63.1204(a)(6) |

| | | |
|---|---|---|
| Minimum kiln pressure drop | < 0 inches water column | 40 CFR 63.1206(c)(5)(i) |

(b) The permittee must conduct confirmatory performance tests to demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions; and conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under §63.1209(k). The emission standards provided by §63.1204 and §63.1209 are outlined in the table below:

| Pollutant | Emission Limit / Requirement | Regulation Citation |
|---|---|---|
| Dioxins and Furans | ≤ 0.2 µg/dscm, or<br>≤ 0.4 µg/dscm at ≤ 400 °F APCD inlet temp. | 40 CFR 63.1204(a)(1)(ii) |
| Minimum combustion chamber temperature | 1. Measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone.<br>2. Document the temperature measurement location in the test plan you submit under §63.1207(e) and (f).<br>3. Establish a minimum hourly rolling average limit as the average of the test run averages. | 40 CFR 63.1209(k)(2)(i)<br>40 CFR 63.1209(k)(2)(ii) |
| Maximum flue gas flow rate or production rate | 1. As an indicator of gas residence time in the control device, establish and comply with a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that is documented in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.<br>2. Comply with this limit on a hourly rolling average basis. | 40 CFR 63.1209(k)(3)(i)<br>40 CFR 63.1209(k)(3)(ii) |
| Maximum hazardous waste feed rate | 1. Establish limits on the maximum pumpable and total (pumpable and non-pumpable) hazardous waste feed rate for each location where waste is fed.<br>2. Establish the limits as the average of the maximum hourly rolling averages for each run.<br>3. Comply with the feed rate limit(s) on a hourly rolling average basis. | 40 CFR 63.1209(k)(4)(i)<br>40 CFR 63.1209(k)(4)(ii)<br>40 CFR 63.1209(k)(4)(iii) |

(c) The permittee shall comply with the testing schedules for the following Performance Tests as outlined in 40 CFR Part 63, Subpart EEE, National Emission Standards For Hazardous Air Pollutants From Hazardous Waste Combustors:

Initial Confirmatory Performance Test
Subsequent Comprehensive Performance Test
Confirmatory Performance Test

(Ref.: 40 CFR 63.1207)

5.B.3 When burning waste derived fuel, the permittee shall continuously monitor and record the following:

(a) coal feed rate and petroleum coke feed rate
(b) supplemental fuel feed rate
(c) kiln burn zone temperature
(d) oxygen content in the exhaust at the kiln stack
(e) carbon monoxide content downstream of the electrostatic precipitator by a continuous monitor meeting EPA Performance Specification 4
(f) kiln discharge end draft (pressure)
(g) inlet feed rate of each constituent for which there is a feed rate limit identified in 3.B.8
(h) total hydrocarbons

The permittee shall maintain calibration and audit procedures and schedules for all instrumentation required for continuously monitoring items 5.B.3(a) through 5.B.3(h) at the site.

The permittee shall submit a semi-annual report which identifies the date, time and magnitude of the maximum one-minute average CO concentration during the month and the date, time, and magnitude of the maximum hourly average CO concentration during the month.
(Ref.: Construction Permit issued on April 27, 1993 and 40 CFR § 63.1209(a)(1)(i))

5.B.4 Each shipment of hazardous waste derived fuel shall be manifested as to its composition and said manifest shall be kept on site for at least three years from the date of delivery.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.5 A downtime record for the electrostatic precipitator shall be kept in a log suitable for inspection by the Department of Environmental Quality personnel for a period of not less than three years after any given downtime. Additionally, the permittee shall submit a monthly report stating the date, time, duration, and cause of electrostatic precipitator malfunctions that exceed six (6) minutes. The report shall be due within fifteen (15) days of the end of the reporting period.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.6 All lines and equipment while in contact with the waste derived fuel containing hazardous waste shall be visually inspected at least once per day for leaks. All leaks in the burn area shall be controlled promptly and shall be repaired within 24 hours of detection and all spills exceeding 10 gallons or the EPA reportable quantity specified under 40 CFR Parts 117 & 302 shall be reported to the Department of Environmental Quality within 24 hours of occurrence. Any leaks detected outside the burn area shall be documented and within five (5) days of detection attempts will be made to repair the defect(s). All repairs must be completed within 15 days of initial detection. A leak inspection and spill log shall be maintained to permanently record the aforementioned requirements and be made available for inspection for at least five years.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.7 The permittee shall retain all records, data, and analysis for the Department of Environmental Quality review for a period of at least five years.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.8 Condition removed on December 29, 2004.

5.B.9 The permittee shall conduct soils testing annually to determine the soil concentration of arsenic, beryllium, cadmium, hexavalent chromium, lead, and mercury at locations designated by the Department of Environmental Quality. Soil testing will consist of four (4) four-foot deep sample cores.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.10 The permittee shall provide a sampling plan prior to the acceptance of any waste derived fuel that assures representative sampling of the waste derived fuel. Additionally, the sampling of the waste derived fuel shall be done by using a "modified" composite liquid waste sampler (COLIWASA) or other approved device to assure representative sampling of the tanker truck or railcar bottom sludges as well as the liquid waste derived fuel.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.11 The cement kiln dust shall be sampled and analyzed on a periodic basis to ensure it continues to meet the Bevil exemption as defined by 40 CFR 266.112. The sampling and analytical frequencies may be reviewed and modified by the DEQ staff. Periodic means weekly for metals and quarterly for organics.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.12 The cement kiln dust shall be sampled and analyzed for TCDD equivalents once per month.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.13 The hazardous waste fuel shall be screened according to Method #9916 for radioactivity,

Standard Operating Procedure For the Determination of Radioactivity in Waste Materials Using Ludlum Model 19 Micro R Meter, or equivalent method to be approved by the Administrator.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.14 For Emission Point AA-001, records shall be maintained to document the hazardous waste derived fuel rate and cumulative volume consumed for each calendar year. The permittee shall submit a semi-annual report stating the maximum fuel rate in gallons/hour for each period and the total quantity of hazardous waste derived fuel burned during that period.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.15 (a) The permittee shall provide on-site office space for use by a DEQ staff person and provide that person with immediate access to the facility.

(b) The permittee shall provide a computer link-up from its Artesia facility to the Jackson office to monitor continuously the operating conditions relative to the burning of hazardous waste and operation of air pollution control equipment.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.16 The facility is subject to and shall comply with the New Source Performance Standards (NSPS) 40 CFR 60, Subpart A – General Provisions and 40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels for the tanks described in Emission Point AA-025. The applicable requirements of Subpart Kb are as follows:

a) Storage vessels equipped with the closed vent system and control device shall meet the standards for volatile organic compounds (VOCs) as given in 60.112b(a)(3).

b) Testing requirements and procedures shall be as specified in 60.113b(c)

c) Reporting and recordkeeping requirements as specified in 60.115b.

d) Monitoring of operations as specified in 60.116b.

e) For the two 97,000 gallon tanks, the permittee is also subject to and shall comply with the notification and recordkeeping requirement as given in 40 CFR 60, Subpart A - General Provisions.

(Ref.: Construction Permit issued on April 27, 1993)

5.B.17 The permittee shall comply with Monitoring, Testing, and Recordkeeping requirements in the National Emission Standard for Benzene Waste Operations, Subpart FF, more specifically defined in 40 CFR 61.354, 61.355, and 61.356.
(Ref.: Construction Permit issued on April 27, 1993. FF subsumes 40 CFR 63, Part DD))

5.B.18 For Emission Points AA-002, AA-004, AA-006, AA-008, and AA-009, the permittee shall comply with all the provisions detailed in the approved Operation and Maintenance Plan as required by 40 CFR §63.1350(a). The Operation and Maintenance Plan is contained in Appendix F of the permit.
(Ref.: 40 CFR 63.1350. LLL subsumes 40 CFR 60, Part F)

5.B.19 For Emission Points AA-001 and AA-002, the permittee shall maintain and continuously operate a Continuous Emissions Monitor (CEM) and a Continuous Opacity Monitor (COM) in accordance with 40 CFR Part 60, Appendix B, Performance Specification 1 (opacity), 4B (CO and $O_2$), and 8A (hydrocarbons), and in compliance with the quality assurance procedures provided in the appendix to 40 CFR 63, Subpart EEE. Monitoring requirements and procedures for alternative monitoring as detailed in the approved Operation and Maintenance Plan shall be followed.
(Ref.: 40 CFR 63.1350(a) and 40 CFR 63.1209(a)(2). LLL subsumes 40 CFR 60, Part F)

5.B.20 For Emission Point AA-008, the permittee shall conduct daily visual emissions observations in accordance with the procedures of Method 22 of 40 CFR Part 60, Appendix A. All monitoring requirements and corrective action as detailed in the approved Operation and Maintenance Plan shall be followed.
(Ref.: 40 CFR 63.1350(e). LLL subsumes 40 CFR 60, Part F)

5.B.21 For Emission Point AA-001, the permittee shall prepare and at all time operate in accordance to an operation and maintenance plan that describes procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of HAP.
(Ref.: 40 CFR §63.1206(c)(7))

5.B.22 For Emission Point AA-001, the permittee shall develop a written startup, shutdown, malfunction plan describing in detail the procedures for operating and maintaining the facility during periods of startup, shutdown, and malfunction.
(Ref.: 40 CFR §63.1206(c)(7))

5.B.23 For Emission Point AA-001, the permittee shall establish a training and certification program for each person who has responsibilities affecting operations that may affect emissions of HAP. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feed streams, persons that manage and charge feed streams to the combustor, persons that operate emission control devices, ash and waste handlers, and maintenance personnel. Site-specific, source developed implemented training programs for control room operators must include the following elements:

(a) Training on the following subjects:

(1) Environmental concerns, including types of emissions;
(2) Basic combustion principles, including products of combustion;
(3) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures;
(4) Combustion controls and continuous monitoring systems;
(5) Operation of air pollution control equipment and factors affecting performance;
(6) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices;
(7) Actions to correct malfunctions or conditions that may lead to malfunction;
(8) Residue characteristics and handling procedures; and
(9) Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and

(b) An examination designed and administered by the instructor; and

(c) Written material covering the training course topics that may serve as reference material following completion of the course.

(Ref.: 40 CFR §63.1206(c)(6)(i) and 40 CFR §63.1206(c)(6)(v))

5.B.24 For Emission Point AA-001, the permittee shall develop and implement a feedstream analysis plan and record it in the operating record. The plan must be developed in accordance with the requirements of 40 CFR §63.1209(c)(2)(i-vi).

5.B.25 For Emission Point AA-001, the permittee shall calculate the hazardous waste residence time and include the calculation in the performance test plan and the operating record.
Ref.: 40 CFR §63.1206(b)(11))

5.B.26 [Intentionally left blank.]

5.B.27 Condition removed on December 29, 2004.

5.B.28 The permittee shall comply with the comprehensive performance testing as specified in the interim standards, 40 CFR 63.1207 (d)(4)(i). A minimum of three runs of a performance test must be conducted to document compliance with the emission standards.
(Ref.: 40 CFR §63.1207(d)(1) and 40 CFR §63.1206(b)(12))

5.B.29 The permittee shall comply with the confirmatory performance tests to demonstrate compliance with the dioxin/furan when operating under normal conditions and conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard as specified in the interim standards, 40 CFR 63.120 (d)(4)(ii).
(Ref.: 40 CFR §63.1207(b)(2) and 40 CFR §63.1207(d)(2))

5.B.30 Condition removed on December 29, 2004.

5.B.31 The permittee shall submit a notification of intention to conduct a confirmatory performance test and CMS performance evaluation and a test plan and CMS performance evaluation plan at least 60 calendar days before the performance test is scheduled to begin. The permittee will be notified within 30 calendar days of the approval or intent to deny approval of the plans.
(Ref.: 40 CFR §63.1207(e)(1)(ii))

5.B.32 For Emission Point AA-001, the permittee shall operate the kiln such that the following parameters do not exceed the average determined for each parameter as determined in the most recent performance test submitted to the Administrator. In addition, the permittee shall continuously monitor the following parameters when burning hazardous waste derived fuel (HWDF) to ensure the limits as established in the most recent performance test are not exceeded.

(a) The feedrate of each feedstream;
(b) Oxygen content to correct CEMS;
(c) HC content downstream of ESP;
(d) APCD inlet temperature;
(e) Maximum combustion chamber pressure;
(f) Minimum combustion chamber temperature;
(g) Feed rate of each feedstream for regulated constituents.

Within 180 days after the Initial Confirmatory Performance Test, as specified in Condition 5.B.2, the permittee shall submit a plan to the Administrator to incorporate parametric ranges for the following:

(1) minimum combustion chamber temperature;
(2) maximum flue gas flow rate or production rate;
(3) maximum hazardous waste feed rate;
(4) gas temperature at the inlet to the ESP;
(5) ESP operating parameters.
(Ref.: 40 CFR 63.1209(j)-(p))

5.B.33 For all sources that are intended to operate in volatile hazardous air pollutant (VHAP)

service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems required by the 40 CFR Part 61, Subpart V, the permittee shall comply with the compliance demonstration and monitoring, performance testing, recordkeeping, and reporting in accordance with §61.245, §61.246, and §61.247.
(Ref.: 40 CFR 61.240)

5.B.34 To comply with conditions in 3.B.11, records shall be maintained to document the waste derived fuel rate and cumulative volume consumed for each calendar year. The permittee shall submit a semi-annual report stating the maximum fuel rate in gallons/hour for each period and the total quantity of waste derived fuel burned during that period. This condition is not federally enforceable under the Federal Clean Air Act.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.35 For any area of the facility that is subject to 40 CFR Parts 60, 61, and/or 63 for the control of air emissions for containers as described in 40 CFR Part 63 Subpart PP, the permittee shall comply with the compliance demonstration and monitoring, performance testing, recordkeeping, and reporting in accordance with §63.925, §63.926, §63.927, §63.928.

5.B.36 For Emission Points AA-002, AA-003, AA-006, AA-008, AA-009, AA-010, and AA-011, the permittee shall perform periodic (once per month) inspections to assure that each baghouse is operating efficiently. The permittee shall keep records of each inspection. For each baghouse these records should include the condition of the bags, the pressure drop, the number of replacement bags that are readily available, and documentation of any maintenance that has been performed. The permittee shall follow the O&M plan for all equipment and control equipment associated with these Emission Points (see Appendix).
(Ref.: APC-S-6, Section III.A.3.a(2))

5.B.37 For Emission Point AA-001, to demonstrate compliance with the annual NOx limitation in 3.B.38, a continuous emission monitoring system (CEMS) to monitor the average hourly NOx emission rate from the kiln shall be installed and operated. The CEMS shall meet the specifications and procedures of Appendix B of 40 CFR 60 and will be certified and maintained in accordance with these procedures.
(Ref.: APC-S-6, Section III.A.3.a(2))

5.B.38 For Emission Point AA-001, the permittee shall monitor total clinker production on a daily basis.
(Ref: Construction Permit modified August 20, 2004)

5.B.39 For Emission Point AA-001, the permittee must install and operate continuous monitoring systems other than CEMS in conformance with Sec. 63.8(c)(3) that requires compliance with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.
(Ref.: 40 CFR 63.1209(b) and 40 CFR 63.8(c)(3))

5.B.40 For Emission Point AA-001, the results of AWFCO system tests required in 3.B.39 shall be documented in the operating record of the AWFCO operability test procedures and results.
(Ref.: 40 CFR § 63.1206(c)(3)(vii))

5.B.41 Regular monthly inspections of the pollution control equipment shall be performed and regular maintenance on such equipment shall be performed as necessary to maintain proper operation. Records of these inspections and maintenance shall be kept in log form and must be made available for review upon request during any inspection visit by Department of Environmental Quality personnel.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.42 The permittee shall maintain on hand at all times sufficient equipment as is necessary to conduct routine maintenance and repair of the pollution control equipment to insure compliance with the emission limits set in this permit.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.43 For Emission Points AA-002, AA-003, AA-006, AA-008, AA-009, AA-010, and AA-011, the permittee shall maintain in working order measuring devices as are necessary for regular monitoring and/or measurement of pressure drop across the baghouse emission control systems.
(Ref.: Construction Permit issued on April 27, 1993)

5.B.44 For Emission Point AA-001, the permittee shall monitor emissions of each regulated NSR pollutant (as indicated in the following table) at the end of each calendar year.

| NSR Pollutant | Baseline Emissions (tons/year) | Projected Actual Emissions (tons/year) | PSD Significance Level (tons/year) | Baseline + Significance Level (tons/year) |
|---|---|---|---|---|
| NOx | 1,534 | 1,534 | 40 | 1,574 |
| CO | 332 | 332 | 100 | 432 |
| Pb | 0.11 | 0.11 | 0.6 | 0.71 |
| PM total | 155 | 167 | 25 | 180 |
| $PM_{10}$ | 132 | 142 | 15 | 147 |
| $SO_2$ | 3,091 | 3,091 | 40 | 3,131 |
| VOC | 7.19 | 7.19 | 40 | 47.2 |

*The values listed in the table above are not emission limits but are only for purposes of evaluating when the reporting requirements of condition 5.C.12 is applicable.*

The permittee shall monitor and/or calculate, and record the annual emissions (tons/year) of each regulated New Source Review (NSR) pollutant that could increase as a result of this project. Annual emissions, as used in this condition means 12 consecutive calendar months beginning with initial firing of PET coke in the kiln or upon modification to the kiln ID fan. Annual emissions of all NSR pollutants, listed above, shall be maintained for a period of at least 10 years after notification to the MDEQ that PET coke has been used as a fuel or that the kiln ID fan modification has been completed.
(Ref.: 40 CFR 52.21(r)(6)(iii)

C. Specific Reporting Requirements

| Emission Point(s) | Pollutant/Parameter Monitored | Reporting Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-025 | Waste Fuel | Reporting | 5.C.1 | Construction Permit Issued April 27, 1993 |
| AA-002, AA-003, AA-006, AA-008, AA-009, AA-010, AA-011 | Baghouse operations | Report baghouse data collected | 5.C.7 | APC-S-6, Section III.A.3.a(2) |
| AA-001 | NOx | CEMS for NOx limit (2,625 tpy) in 3.B.38. | 5.C.8 | APC-S-6, Section III.A.3.a(2) |

5.C.1 The permittee shall comply with the Reporting requirements in the National Emission Standard for Benzene Waste Operations, Subpart FF, more specifically defined in 40 CFR 61.357.
(Ref.: 40 CFR 61.357. FF subsumes 40 CFR 63, Part DD)

5.C.2 The permittee shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate non-compliance with the applicable emission limitation or operating parameter limit.
(Ref.: 40 CFR 63.10(e)(3))

5.C.3 The permittee shall submit a summary report semiannually containing the information specified in 40 CFR §63.10(e)(3)(vi) and also the following information:

(1) All exceedences of maximum control device inlet gas temperature sensors (if applicable);

(2) All failures to calibrate thermocouples and other temperature sensors (if applicable);

(3) All failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate (if applicable);

(4) The results of any combustion system component inspections conducted within the reporting period;

(5) All failures to comply with any provision of the operation and maintenance plan;

(6) Periodic startup, shutdown, and malfunction reports (Ref.: 40 CFR § 63.10(d)(5)(i));

(7) Immediate startup, shutdown, and malfunction reports
(Ref.: 40 CFR § 63.10(d)(5)(ii)).

5.C.4 The permittee shall submit a Notification of Compliance (NOC) within 90 days of completion of a comprehensive performance test. The NOC shall document compliance or noncompliance with the emission standards and continuous monitoring system requirements and identify operating parameter limits under 40 CFR §63.1209.
(Ref.: 40 CFR §63.1207(j))

5.C.5 The permittee shall submit a semiannual report in accordance with 40 CFR §63.1354(b)(9).
(Ref: 40 CFR 60.1354(b)(9). LLL subsumes 40 CFR 60, Part F)

5.C.6 For each set of 10 exceedences of an emission standard or operating requirement while hazardous waste remains in the combustion chamber during a 60-day block period, the permittee shall submit a written report within 5 calendar days of the 10th exceedence documenting the exceedences and results of the investigation and corrective measures taken.
(Ref.: 40 CFR §63.1206(c)(3)(vi))

5.C.7. For Emission Points AA-002, AA-003, AA-006, AA-008, AA-009, AA-010, and AA-011, the permittee shall submit a report in accordance with Paragraph 5.A.4 summarizing the data collected from the visual observations and/or periodic inspections performed on each baghouse during the previous six-month period.
(Ref.: APC-S-6, Section III.A.3.a(2))

5.C.8. For the monitoring and recordkeeping requirements in 5.B.37 regarding Emission Point AA-001, the permittee shall submit a report in accordance with Paragraph 5.A.4 summarizing the total annual NOx emission rate in tons/year for each consecutive 12-month period based on certified NOx CEMS hourly averages.

5.C.9 For Emission Point AA 001, the permittee shall submit semiannual reports by July 31 and January 31 for the preceding six month period summarizing the following:

(A) The total annual NOx emission rate in tons/year for each consecutive 12-month period based on certified NOx CEMS hourly averages.

(B) The total annual clinker production rate in tons/year for each consecutive 12 month period.

(C) A demonstration that on a 30 day rolling averaging basis the permittee did not allow NOx emissions to exceed 10 lbs/ton of clinker produced.

(Ref: Construction Permit modified August 20, 2004)

5.C.10 The permittee shall submit a notification of intention to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one (1) year before the performance test and performance evaluation are scheduled to begin. The permittee will be notified within nine (9) months of the approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan.
(Ref.: 40 CFR § 63.1207(e)(1)(i))

5.C.11 The permittee shall submit a Notification of Compliance (NOC) within 90 days of completion of a confirmatory performance test. The NOC shall document compliance or noncompliance with the applicable dioxin/furan emission standard.
(Ref.: 40 CFR § 63.1207(j)(2))

5.C.12 For Emission Point AA-001, if annual emissions (tons/year) exceed baseline actual emissions, as required in the monitoring condition 5.B.44 above, by a significant amount, the permittee shall submit a report to the Mississippi Environmental Quality Board within 60 days after the end of such calendar year. The report shall contain the following information:

(A) The name, address, and telephone number of the stationary source

(B) The annual emissions calculated pursuant to condition 5.B.44 above

(C) An explanation as to why annual emissions differ from the pre-construction projected actual emissions

(Ref.: 40 CFR 52.21(r)(6)(v))

## SECTION 6. ALTERNATIVE OPERATING SCENARIOS

None permitted.

## SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act. The full text of the referenced regulations is contained in Appendix B to this permit.

7.1 If the permittee stores or transports class I or class II substances, the permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

(a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if being introduced into interstate commerce pursuant to ' 82.106.

(b) The placement of the required warning statement must comply with the requirements pursuant to ' 82.108.

(c) The form of the label bearing the required warning statement must comply with the requirements pursuant to ' 82.110.

(d) No person may modify, remove, or interfere with the required warning statement except as described in ' 82.112.

7.2 If the permittee performs any of the activities described below, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to ' 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliance must comply with the standards for recycling and recovery equipment pursuant to ' 82.158.

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

(d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the recordkeeping requirements pursuant to ' 82.166. (AMVAC - like appliance@ is defined at ' 82.152.)

(e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to ' 82.156.

(f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to ' 82.166.

7.3 If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

7.4 If the permittee performs a service on motor (fleet) vehicles and if this service involves an ozone-depleting substance (refrigerant) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
The term Amotor vehicle@ as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term AMVAC@ as used in Subpart B does not include air-tight sealed refrigeration systems used for refrigerated cargo, or air conditioning systems on passenger buses using HCFC-22 refrigerant.

7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

# APPENDIX A

## List of Abbreviations Used In this Permit

| | |
|---|---|
| APC-S-1 | Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants |
| APC-S-2 | Permit Regulations for the Construction and/or Operation of Air Emissions Equipment |
| APC-S-3 | Regulations for the Prevention of Air Pollution Emergency Episodes |
| APC-S-4 | Ambient Air Quality Standards |
| APC-S-5 | Regulations for the Prevention of Significant Deterioration of Air Quality |
| APC-S-6 | Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act |
| APC-S-7 | Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act |
| BACT | Best Available Control Technology |
| CEM | Continuous Emission Monitor |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COM | Continuous Opacity Monitor |
| COMS | Continuous Opacity Monitoring System |
| DEQ | Mississippi Department of Environmental Quality |
| EPA | United States Environmental Protection Agency |
| gr/dscf | Grains Per Dry Standard Cubic Foot |
| HP | Horsepower |
| HAP | Hazardous Air Pollutant |
| lbs/hr | Pounds per Hour |
| M or K | Thousand |
| MACT | Maximum Achievable Control Technology |
| MM | Million |
| MMBTUH | Million British Thermal Units per Hour |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards |
| NESHAP | National Emissions Standards For Hazardous Air Pollutants, 40 CFR 61<br>or<br>National Emission Standards For Hazardous Air Pollutants for Source Categories, 40 CFR 63 |
| NMVOC | Non-Methane Volatile Organic Compounds |
| $NO_x$ | Nitrogen Oxides |
| NSPS | New Source Performance Standards, 40 CFR 60 |
| O&M | Operation and Maintenance |
| PM | Particulate Matter |
| $PM_{10}$ | Particulate Matter less than 10 Φm in diameter |
| ppm | Parts per Million |
| PSD | Prevention of Significant Deterioration, 40 CFR 52 |
| SIP | State Implementation Plan |
| $SO_2$ | Sulfur Dioxide |
| TPY | Tons per Year |
| TRS | Total Reduced Sulfur |
| VEE | Visible Emissions Evaluation |
| VHAP | Volatile Hazardous Air Pollutant |
| VOC | Volatile Organic Compound |

# APPENDIX B

## 40 CFR 82

## PROTECTION OF STRATOSPHERIC OZONE

# APPENDIX C

## 40 CFR, PART 63, SUBPART LLL, NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR CATEGORIES; PORTLAND CEMENT MANUFACTURING INDUSTRY

# APPENDIX D

## 40 CFR PART 63, SUBPART EEE, NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM HAZARDOUS WASTE COMBUSTORS

# APPENDIX E

## 40 CFR PART 61, SUBPART V, NATIONAL EMISSION STANDARD FOR EQUIPMENT LEAKS (FUGITIVE EMISSION SOURCES)

# APPENDIX F

## Operation and Maintenance Plan

# APPENDIX G

## 40 CFR PART 63, SUBPART PP, NATIONAL EMISSION STANDARDS FOR CONTAINERS