

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit

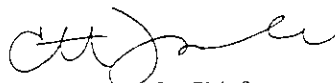
Mr. James S. Jenkins, III
Rinker Materials Corporation
1200 Northwest 137th Avenue
Miami, Florida 33182

DEP File No. 0250014-002-AC
Dade County

Enclosed is the Permit Number 0250014-002-AC to construct a 1,200,000 ton per year (clinker) dry process cement kiln with preheater, precalciner, clinker cooler, crusher, mills, storage and handling equipment, and ancillary equipment at Rinker Materials Corporation, Miami Cement Plant, 1200 Northwest 137th Avenue, Miami, Dade County. This permit is issued pursuant to Chapter 403, Florida Statutes. This permit does not constitute a maximum achievable control technology (MACT) determination. While this facility does not have a MACT determination, the facility will be subject to EPA-promulgated MACT standards under Section 112(d) of the Clean Air Act and to applicable deadlines, if any, established in such EPA-promulgated MACT standards.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.


C.H. Fancy, P.E., Chief
Bureau of Air Regulation

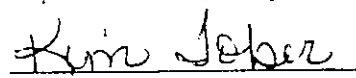
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9-11-97 to the person(s) listed:

Mr. James S. Jenkins, III, RMC*
Mr. Jacob D. Varn, Steel, Hector & Davis
Mr. Brian Beals, EPA
Mr. John Bunyak, NPS
Mr. John Koogler, P.E.
Mr. Ewart L. Anderson, DERM
Mr. Isidore Goldman, SED

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk) 9-11-97
(Date)

FINAL DETERMINATION

RINKER MATERIALS CORPORATION
PORTLAND CEMENT MANUFACTURING FACILITY
PERMIT No. 0250014-002-AC
Dade County

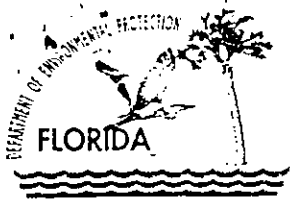
An Intent to Issue an air construction permit to Rinker Materials Corporation (RMC) for a modernization project at its cement manufacturing facility located at 1200 Northwest 137th Avenue in Miami, Dade County, was distributed on June 24, 1997. The Public Notice of Intent to Issue Air Construction Permit was published in The Miami Herald on June 28, 1997.

During the public notice period, a comment was submitted by Mr. Steven Cullen, P.E. from Koogler & Associates (regarding the maximum annual rate of the liquid waste burned). In addition, Mr. Cullen submitted an engineering report of the preliminary design specifications of the several baghouses to be used as the pollution control equipment for this facility. No comments were submitted by the U.S.EPA, the National Park Service, Dade County DERM, or the public.

As a result of Mr. Cullen's comments, the annual rate of the liquid waste burned was corrected in the final permit to reflect the annual rate stated in the application (31,886 thousand gallons burned).

The Department recently adopted provisions pursuant to Section 112(g) of the Clean Air Act regarding case-by-case MACT determinations. The requirements of the rule, incorporated into Rule 62-204.800, F.A.C., became effective on July 1, 1997, which is after the date of issuance of the Intent to Issue Permit. It was clarified that the present permitting action does not constitute a MACT determination.

The final action of the Department will be to issue the permit with the changes as noted above.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:

Rinker Materials Corporation
Miami Cement Plant
1200 Northwest 137th Avenue
Miami, Fl 33182

FID No.	0250014
SIC No.	3241
Permit No.	0250014-002-AC
Expires:	May 30, 1999

Authorized Representative:
James S. Jenkins, III
Vice-President of Cement Operations

PROJECT AND LOCATION:


Permit for the construction of a dry process portland cement plant with preheater and precalciner and a capacity of 1,200,000 tons per year of clinker at 1200 Northwest 137th Avenue, Miami, Dade County. UTM coordinates are Zone 17; 558.20 km E ; 2851.20 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices and Tables made a part of this permit:

Table 1-1	Allowable Opacity Limits
Table 1-2	Air Pollutants Standards and Terms
Table 2-1	Compliance Requirements
Appendix GC	Construction Permit General Conditions
Appendix CSC	Emission Unit(s) Common Specific Conditions


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Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

The existing facility consists of a quarry, two wet-process cement kilns and clinker coolers, associated equipment, a soil treatment facility and a concrete batch plant. This permit is for construction of a single dry-process kiln with preheater, precalciner and clinker cooler, capable of producing approximately 1,200,000 tons per year (TPY) of clinker, that will replace the existing kilns and coolers having a total capacity of 650,000 TPY. Substantial improvements and upgrades in fuel and materials handling will also be made.

EMISSION UNITS

This permit addresses the following emission units:

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 016	Raw Materials Processed	Material Handling (Fugitive) Handling and Storage (Fugitive)
ARMS No. 017	Raw Mill System	Raw Materials Handling
ARMS No. 018	Kiln System	Raw Mill, Dry Process Kiln with Preheater (PH) Precalciner (PC), and Clinker Cooler; Main stack
ARMS No. 019	Finish Mill System	Clinker Cement Handling and Storage
ARMS No. 020	Coal Mill System	Coal Mill, Fuel Bin Coal Handling and Storage (Fugitive)

SUBSECTION B. REGULATORY CLASSIFICATION

The Rinker Materials Corporation (RMC) Miami Cement Plant directly emits more than 100 tons per year (TPY) of several regulated air pollutants and emits over 10 TPY of at least one hazardous air pollutant. Therefore it is classified as a "Major Source of Air Pollution or Title V Source," per the definitions in Rule 62-212.200, F.A.C.

This industry is listed in Table 62-212.400-1 of Chapter 62-212, F.A.C., "Major Facility Categories." Therefore, stack and fugitive emissions of over 100 TPY of carbon monoxide, volatile organic compounds, sulfur dioxide, nitrogen oxides, or particulate matter characterize the installation as a major facility per the definitions in Rule 62-210.200, F.A.C. and subject to applicability review for the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD).

The facility is also subject to 40 CFR Subpart F, New Source Performance Standards (NSPS) for Portland Cement Plants, incorporated by reference in Rule 62-204.800, F.A.C.

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION I. FACILITY INFORMATION

SUBSECTION C. PERMIT SCHEDULE:

- 06/28/97 Notice of Intent published in The Miami Herald
- 06/24/97 Issued Notice of Intent to Issue Permit
- 05/27/97 Application deemed complete

SUBSECTION D. RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

1. Application received December 4, 1996
2. Department's letters dated December 31, 1996 and May 9, 1997
3. Koogler & Associates' letters dated March 24, April 16, and May 27, 1997
4. EPA's letter dated May 22, 1997
5. Engineering Report, Fabric Filters, Koogler and Associates, July, 1997.

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Air Division of the Dade County Department of Environmental Resources Management (DERM), Suite 900, 33 Southwest Second Avenue, Miami, Florida 33130-1540 (phone number: 305/372-6925). All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blairstone Road, Tallahassee, Florida 32399-2400 (phone number 850/488-1344).
- A.2 General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- A.3 Emission Unit(s) Common Specific Conditions: The owner and operator is subject to and shall operate under the attached Emission Unit(s) Common Specific Conditions listed in *Appendix CSC* of this permit. The Emission Unit(s) Common Specific Conditions are binding and enforceable pursuant to Chapters 62-204 through 62-297 of the Florida Administrative Code.
- A.4 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.5 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
- A.6 Expiration: This air construction permit shall expire on May 30, 1999 [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify DERM of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
- A.7 Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to Dade County DERM's Air Division. [Chapter 62-213, F.A.C.]
- A.8 MACT Determination: This permit does not constitute a maximum achievable control technology (MACT) determination. While this permit does not have a MACT determination, the facility will be subject to EPA-promulgated MACT standards under Section 112(d) and to applicable deadlines, if any, established in such EPA-promulgated MACT standards.

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. COMMON CONDITIONS: 40 CFR 60 NEW SOURCE PERFORMANCE STANDARDS

EMISSION UNITS

This permit addresses the following emission units.

EMISSIONS UNIT No.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 016	Raw Materials Processed	Material Handling (Fugitive) Handling and Storage (Fugitive)
ARMS No. 017	Raw Mill System	Raw Materials Handling
ARMS No. 018	Kiln System	Raw Mill, Dry Process Kiln with Preheater (PH) Preheater (PC), and Clinker Cooler: Main stack
ARMS No. 019	Finish Mill System	Clinker Handling Cement Handling and Storage
ARMS No. 020	Coal Mill System	Coal Mill, Fuel Bin Coal Handling and Storage (Fugitives)

These emission units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A, adopted by reference in Rule 62-204.800(7), F.A.C.

- A.1 [40 CFR 60.7, Notification and record keeping]
- A.2 [40 CFR 60.8, Performance tests]
- A.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- A.4 [40 CFR 60.12, Circumvention]
- A.5 [40 CFR 60.13, Monitoring requirements]
- A.6 [40 CFR 60.19, General notification and reporting requirements]

This cement plant is subject to the applicable requirements of the New Source Performance Standards (NSPS) and the National Emissions Standards for Hazardous Air Pollutants (NESHAP), adopted by reference in Rules 62-204.800(7) and (10), F.A.C., including:

- 40 CFR 60 Subpart F, Standards of Performance for Portland Cement Plants.
- 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants
- 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants
- 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
- 40 CFR 60, Subpart Eb, Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994. (Co-fired combustor reporting requirements only)
- 40 CFR 63, Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112 (g) and 112 (j).

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION B. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
ARMS No. 018	Kiln System	Raw Mill, Dry Process Kiln with Preheater and Precalciner, and Clinker Cooler.

This emission unit shall comply with all applicable provisions of the 40 CFR.60 New Source Performance Standards for Portland Cement Plants, Subpart F. [Rule 62-204.800(7)(b)8., F.A.C]

EMISSION LIMITATIONS

- B.1 The maximum allowable emission rates for the kiln, clinker cooler, raw mill, and preheater/precalciner shall not exceed the limits listed in Table 1-2, Air Pollutant Standards and Terms (attached). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.2 In order to minimize excess emissions during startup/shutdown/malfunction this emission units shall adhere to best operational practices. [Rule 62-210.700, F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- B.3 This emission unit is allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.4 The kiln clinker production rate shall not exceed 137 tons per hour (TPH) on a 24-hour basis. The permitted maximum preheater feed is 220 TPH on a 24-hour basis. [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.5 Fuel Combustion
 - (1) Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total heat input rate of 437 MMBtu/hr and shall consist only of:
 - a. Bituminous coal, natural gas, petroleum coke, propane, No. 2 fuel oil, residual fuel oil, on-specification and off-specification used oil.
 - b. Whole tires and tire derived fuel (up to 40% total heat input) may be used as a supplemental fuel, but not as a start-up fuel.
 - c. Combustion of non-hazardous solid waste, oil filters, booms and rags from spill clean up, generated on site. This non-hazardous solid waste material shall be used as supplemental fuel not as a start-up fuel.
 - d. Combustion of non-hazardous solid waste (up to 30% of total heat input) may be used as supplemental fuel: unused diapers, papers products, non-chlorinated plastic waste, sewage

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

sludge from publicly owned treatment works (POTW). This non-hazardous solid waste material shall be not be used as a start-up fuel.

- e. The combined percent heat input from tires, tire-derived fuel and solid waste shall not exceed 40 percent of the total heat input from all fuels on a 24-hour basis.

COAL AND PETROLEUM COKE

- (2) The coal usage rate shall not exceed 16.8 TPH based on a 24-hour average. The petroleum coke usage rate shall not exceed 14.6 TPH on a 24 hour basis.

TIRES

- (3) Whole tires and tire-derived fuel along with the permitted non-hazardous solid waste material may be fed continuously at the kiln inlet at the base of the precalciner at a rate not to exceed 174.8 MMBtu/hr (40% of total kiln and precalciner fuel input) on a 24-hour basis.
- (4) Before initiating tire firing, the gases exiting the kiln shall reach a minimum temperature of 1400 degrees F for one hour and the oxygen level in the kiln, as measured at the cement plant induced draft fan, shall reach at least 3 percent (1-hour average). Upon reaching steady state conditions, and within 6 hours, gases exiting the kiln shall be maintained at an outlet temperature of at least 1750 degrees F.

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USED OIL

- (5) The constituents and properties of the *on-spec used oil* shall comply with the following allowable concentration levels, as stipulated and defined in 40 CFR 279.10 (July 1, 1996 version), which is adopted by reference in **Rule 62-730.181, F.A.C.**

Constituent/Property	Allowable Concentration
Cadmium	2 ppm maximum
Arsenic	5 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	140 ° F minimum
Polychlorinated Byphenyls (PCBs)	Less than 2 ppm

- (6) *On-specification used oil* burned at this facility shall not be a hazardous waste as defined by Rule 62-730.030, F.A.C., or 40 CFR Part 261 (July 1, 1996 version). It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. The on-spec used oil shall be burned in compliance with Section 403.769(3), F.S.

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- (7) *Off-specification used oil* burned at this facility shall not be a hazardous waste as defined by Rule 62-730.030, F.A.C., or 40 CFR Part 261 (July 1, 1996 version). It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. The off-spec used oil shall be burned in compliance with Section 403.769(3), F.S.
- (8) *The on and off-specification used oil samples from Specific Condition No. B.5(5), (6) and (7) and B.22 shall be analyzed by EPA Recommended Analytical Procedures for Used Oil for the following constituent/property, associated unit, and using the test methods indicated:*

Constituent/Property	Unit	Test Method
Cadmium	ppm	EPA SW-846(6010)
Arsenic	ppm	EPA SW-846(6010)
Chromium	ppm	EPA SW-846(6010)
Lead	ppm	EPA SW-846(6010)
Total Halogens	ppm	EPA SW-846(9252)
Sulfur	percent	ASTM D129 or ASTM D1552
Flash Point	degree F	EPA SW-846(1010)
Heat of Combustion	Btu/gal	ASTM D240
Density	lbs/gal	
Polychlorinated Biphenyls (PCB's)	ppm	EPA SW-846(0010) and EPA 680
Ash		

NOTE: Other test methods may be used only after receiving written prior approval from the Department.

- (9) The maximum annual consumption rate of used oil shall not exceed 31,886,000 gallons.

- B.6 Any other operating parameters (including control equipment operating parameters) established during compliance testing and/or inspection that will confirm the proper operation of each emission unit shall be included in the operating permit [Rule 62-297.310, F.A.C. and 62-4.070(3), F.A.C.]

MONITORING OF OPERATIONS

- B.7 The owner or operator shall record the daily production and the preheater-kiln system feed rate. [Rule 62-204.800(7)(b)8., F.A.C., 40 CFR 60.63(a)]
- B.8 As required by 40 CFR 60.63(b), the owner or operator shall install, calibrate, maintain, and operate in accordance with 40 CFR 60.13 a *continuous opacity monitoring system* to measure the opacity of emissions from the cement kiln and clinker cooler control device stack. [Rule 62-204.800(7)(b)8., F.A.C.]
- B.9 Continuous process monitors shall be installed for CO or O₂ to insure proper combustion practices and for use in determining plant operating parameters to optimize emissions of CO, NO_x, and SO₂. [Rule 62-4.070(3) F.A.C.]

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

B.10 A continuous emissions monitoring system (CEMS) shall be installed, calibrated, maintained, operated, and used to determine compliance with the emissions limits for NO_x and SO₂ in Table 1-2. CEMS shall be installed and certified, before the initial performance test, and operated in compliance with 40 CFR 60, Appendix F, Quality Assurance Procedures (1996 version) or other Department-approved QA plan; 40 CFR 60, Appendix B, Performance Specification 1, 2, and 3 (1996 version). [Rules 62-4.070 (3) and 62-204.800, F.A.C.]

B.11 The CEMS shall calculate and record emission rates in units of pounds of NO_x and SO₂ per hour. Clinker production rates shall be recorded daily. The permittee may establish a relationship between material feed rates and production rates of clinker if material feed rates are measured more accurately than clinker production rates and the relationship is accurate within 10%.

Every day, the 24-hour average NO_x and SO₂ emission rate for the previous day shall be calculated. Emissions shall be calculated in units of pounds per hour and pounds per ton of clinker. Daily averages are to be calculated as the arithmetic mean of each monitored operating hour. A monitored operating hour is each hour in which fuel is fired in the unit and at least two emission measurements are recorded at least 15 minutes apart. Data taken during periods of startup, or when fuel is not fired to the unit, or when the CEMS is not calibrated shall be excluded from the daily average.

For compliance with the emission limits in Table 1-2, the daily average shall not include data from periods of startup when no clinker is being produced. However, emissions during startup periods shall not exceed the pound per hour limits in Table 1-2. Data recorded during periods of shutdown, malfunction, load change, and continuous operating periods shall be included in the daily average.

To the extent the monitoring system is available to record emissions data, the CEMS shall be operated and shall record data at all operating hours when fuel is fired in the unit, including periods of startup, shutdown, load change, continuous operation and malfunction.

Monitor downtimes and excess emissions based on daily averages, which include startup emissions, shall be reported on a quarterly basis using the SUMMARY REPORT in 40 CFR 60.7. A detailed report of the cause, duration, magnitude, and corrective action taken or preventative measures adopted for each excess emission occurrence, and a listing of monitor downtime occurrences shall accompany the SUMMARY REPORT when the total duration of excess emissions is 1% or greater or if the monitoring system downtime is 5% or greater of the total monitored operating hours.

Mass emission rates (lb/hr, and lb/ton clinker) shall be calculated based on source specific and fuel specific F factors calculated using 40 CFR 60 Appendix A, Method 19. These F factors shall be recalculated when fuel properties vary significantly from those used in the previously calculated F factors but not less than once per year.

B.12 The monitoring device shall meet the applicable requirements of Chapter 62-204, F.A.C., 40 CFR 60, Appendix F, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to *DERM* for review at least 90 days prior to installation of a new CEMS. [Rule 62-4.070 (3) F.A.C and Rule 62-204.800, F.A.C.]

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

TEST METHODS AND PROCEDURES

B.13 For emissions other than NO_x and SO₂, compliance with the allowable emission limiting standards listed in Table 1-2 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1996, version) and 40 CFR 61 Appendix B 1996, version) adopted by reference in Chapter 62-204, F.A.C.

Method 5	Determination of Particulate Matter Emissions from Stationary Sources (I) and (A).
Method 8	Determination of Sulfuric Acid Mist from Stationary Sources (I).
Method 9	Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).
Method 10	Determination of Carbon Monoxide Emissions from Stationary Sources (I) and (A).
Method 25	Determination of Volatile Organic Compound Emissions from Stationary Sources (I) and (A).
Method 29	Determination of Lead, Beryllium, and Mercury from Stationary Sources (I).

Emission testing shall be performed at the kiln/cooler main stack during a period when the kiln precalciner, cooler, raw mill and preheater are operating simultaneously and under normal operating conditions. EPA-reference methods for sampling pollutants shall be as specified in 40 CFR 60, Appendix A.

These emission units shall comply with all applicable requirements of Rule 62-297.310, F.A.C. General Test Requirements and 40 CFR 60.8. Performance Tests. Table 2-1, Compliance Requirements (attached) also lists the EPA methods.

Testing of emissions shall be conducted with the emission unit operating at capacity and under the different permitted fuels scenarios (petroleum coke, coal, on or off specification used oil, TDF, solid waste, etc.) as specified in Specific Condition No.B.5. Fuel Combustion. The permittee shall provide DERM with a *protocol* that will outline the different fuel scenarios (% of total heat input) that this unit will be burning. Rinker shall obtain the test data necessary to determine whether this kiln is capable of accommodating the burning of coal or petroleum coke and all of the other supplemental fuels specified on Specific Condition B.5. Fuel Combustion. The fuel scenarios tested shall represent the actual combustion percentage (% of total heat input) that is going to be maintained while burning supplemental fuels during normal operation. The frequency of testing shall be determined by DERM.

Permitted capacity is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the unit may be tested at less than 90% of the maximum operating rate allowed by the permit; in this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C., and 40 CFR 60 Appendix A and 40 CFR 60.8, Subpart A].

B.14 The visible emissions test shall be conducted by a certified observer and be a minimum of 180 minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur [40 CFR 60.11 and Rule 62-297.310 (7), F.A.C.].

AIR CONSTRUCTION PERMIT 0250014-002-AC

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- B.15 Compliance with the particulate matter standard contained in Table 1-2 (attached) shall be determined using EPA Method 5. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (c_s \times Q_{sd}) / (P \times K)$$

where:

- E = emission rate of particulate matter, kg/metric ton (lb/ton) of kiln feed
c_s = concentration of particulate matter, g/dscm (g/dscf)
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P = total kiln feed (dry basis) rate, metric ton/hr (ton/hr)
K = conversion factor, 1000 g/kg (453.6 g/lb)

- B.16 The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln and at least 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler. [Rules 62-204.800 and 62-297.401, F.A.C. 40 CFR 60.64(b)(1) - (3)].
- B.17 Suitable methods shall be used to determine the kiln feed rate (P), except fuels, for each run. Material balances over the production system shall be used to confirm the feed rate [40 CFR 60.64(3)].
- B.18 Operating procedures shall include good combustion practices and proper training of all operators and supervisors. The good combustion practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.].

RECORDKEEPING AND REPORTING REQUIREMENTS

- B.19 The owner or operator shall submit reports of excess emissions based upon data from the continuous opacity monitoring system. Periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity exceeds that allowed in Tables 1-1 and 1-2. The content of these reports must comply with the requirements in 40 CFR 60.7(d). Such reports shall be submitted quarterly pursuant to 40 CFR 60.7 (c). [Rule 62-204.800, F.A.C.; 40 CFR 60.63(d), 60.65(a) and 40 CFR 60.7].

- B.20 In order to document compliance with Specific Condition No. B5(3) Tires:

- delete?* (1) A log shall be established and maintained for the hours of operation using tires as supplemental fuel. The log shall include the daily tire usage (hours) as supplemental fuel at the facility, a monthly running total of the tire usage (hours), and a cumulative 12 month running total (hours), to ensure that the annual limit is not exceeded.
- delete?* (2) A log shall be maintained that includes the date of all tire deliveries to the facility, and the total quantity (nearest 0.1 tons) of tires received.
- (3) A tire usage control system shall be installed to assure that the tire usage as supplemental fuel at the facility does not exceed the maximum of 178.4 million Btu heat input to the kiln and

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

precalciner or 6.7 tons per hour. The control system shall include a verification method and a log that insures and documents that the tires usage and heat input limits are not exceeded.

- (4) A log for the utilization rate (tons per hour) of tires shall be maintained. The utilization rate of tires as supplemental fuel shall be determined by a continuous weighing method and shall be recorded.
- (5) All logs shall be maintained on file for at least five (5) years and shall be made available to the Department upon request.

B.21 In order to document compliance with Specific Condition No. B5(2) **Coal and Petroleum coke**, a fuel usage control system shall be established to assure that the coal and petroleum coke usage rates does not exceed 16.8 and 14.6 TPH respectively.

B.22 In order to document compliance with Specific Conditions No. B5(3) through B5(8) **Used Oils**, the following requirements shall be adhered to as a minimum:

- (1) Recordkeeping when burning used oil shall be in accordance with applicable provisions of 40 CFR Part 279, Subpart B and Subpart G (July 1, 1996 version), Standards For The Management of Used Oil and Chapter 62.710, F.A.C.
- (2) Pursuant to Permit AO 13-233208, the following shall be recorded on the delivery receipt:
 - the use of tamper proof seals on the delivery receipt
 - the volume of fuel delivery
 - a cross reference to the analysis which establishes that the used oil meets EPA used oil fuel specifications
 - the results of the screening analysis
 - the name of the person performing the test
 - the specific test kit used
 - the amount of oil sampled
 - the amount and name of the solution used to dilute the oil
- (3) The following procedures shall be implemented:
 - Used oil fuel that is delivered without a delivery receipt containing all the above information, or which is not properly sealed, or for which the delivery receipt does not contain all the necessary information, is not to be accepted and DERM is to be notified by phone immediately (with written confirmation to follow), if such a delivery is attempted.
 - Verification by signature on the delivery receipt shall be provided by plant personnel that the delivery truck arrived on site with all seals intact. As delivered samples of all used oil fuel received shall be accumulated through each quarter for each supplier.
 - The results of each sample analysis (on the laboratory's letterhead) shall be submitted to DERM within 30 days after a sample is taken and analyzed.
 - The dates and quantities of both on and off-spec purchased fuel oil transferred to the facility storage tank shall be reported quarterly (i.e., Jan-Mar, April-June, July-Sept, and Oct-Dec). The report is due in the month following the ending quarter.

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- The unused portion of the fuel oil sample shall be retained for six months following the submittal of the analyses in case further testing is required.
- B.24 All measurements, records, and other data required to be maintained by the permittee shall be reported to DERM on a quarterly basis with the start of commercial operation in accordance with 40 CFR 60.7. All measurements, records and other data required to be maintained by the permittee shall be retained for at least 5 years following the date on which such measurements, records, or data are recorded. The data shall be available to DERM or FDEP staff as requested. [40 CFR 60.7]
- B.25 The owner or operator shall submit reports of the malfunction information required to be recorded by 40 CFR 60.7(b). These reports shall include the frequency, duration, and cause of any incident resulting in de-energization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere. [Rule 62-204.800, F.A.C., 40 CFR 60.65 (c)]
- B.26 This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily Operation and Maintenance log to include, at a minimum, the following information:
- The data collected from in-stack monitoring instruments
 - The records on daily feed rates and clinker production rate
 - The amount and type of fuel burned
 - Total quantity (by weight) of tires used as supplemental fuel
 - The firing rate of whole tires shall be quantified (weighed) continuously and recorded
 - Calibration logs for all instruments
 - Maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit:
 - Total coal, petroleum coke, natural gas, solid waste material, and oil usage.

All measurements, records, and any other data required to be maintained by Rinker shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the FDEP and to DERM upon request. DERM shall be notified in writing at least 15 days prior to the testing (auditing) of any instrument required to be operated by these specific conditions in order to allow witnessing by authorized personnel. [Rule 62-4.070(3), F.A.C.]

SOLID WASTE SPECIFIC CONDITIONS

Compliance with these conditions will be determined by the Department's Southeast District Solid Waste Section and/or DERM.

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

B.27 The Permittee shall comply with Rules 62-701 and 62-711, F.A.C. All original submittals in response to this Specific Condition shall be submitted to:

Waste Tire Financial Coordinator
Solid Waste Management Section
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Solid Waste Section
Department of Environmental Protection
Southeast District Office
P O Box 15425
West Palm Beach, Florida 33416

- B.28 The maximum allowable number of waste tires stored on site at any time is 28,000. Only whole waste tires shall be stored on site.
- B.29 No processed waste tires shall be stored or burned at this site at any time unless the permittee obtains a permit modification from the Department. Waste tires shall only be received in enclosed trailers from registered waste tire collectors who possess valid registrations pursuant to Rule 62-711, F.A.C.
- B.30 The Permittee shall not place waste tires on the ground. Waste tires shall be received in closed vans and unloaded directly into the tire feeding hopper. Also, in order to control mosquitoes at the site, waste tires shall be sprayed with an insecticide prior to receipt at the facility.
- B.31 The Permittee shall document the number of tires burned during a week and then establish storage and inventory based on a typical weekly requirement. The Permittee shall keep all documentation concerning tire inventory at the site and make the information available for Department review during inspections.
- B.32 Storage of solid waste at the facility shall not be in violation of the prohibitions of F.A.C. Rule 62-701.300. In addition, all solid waste materials to be used in cement production shall be stored under cover, on compacted clay, to prevent the generation of runoff or leachate.
- B.33 No RCRA hazardous waste or used oil may be burned. Cement Kiln Dust (CKD) collected in the baghouses shall be returned to the process. Any CKD not returned to the process shall be handled in accordance with Subtitle C rules under development by EPA. In the interim, the permittee shall develop a contingent management practice (CMP) for storage, sales, or disposal of any CKD not reused. The CMP will be a condition of the operating permit.
- B.34 In the event that baghouse catch comes in contact with the soil, the waste shall be collected and a hazardous waste determination performed for metals in accordance with 40 CFR 262.11 and F.A.C. Rule 62-730.160. If the hazardous waste determination indicates that the material is hazardous, it shall be disposed of in a permitted hazardous waste disposal facility. If the material is not hazardous, the waste material is a solid waste as defined in Rule 62-701, F.A.C. and must be disposed of in a permitted, lined, landfill. The Permittee shall contact the Solid Waste Section of the Southeast District office, at telephone number 407/681-6600, prior to disposal of the fugitive baghouses catches which are to be disposed of as solid waste.
- B.35 The Permittee shall store all hazardous waste generated at the site in D.O.T. approved containers and send it for disposal to a permitted hazardous waste facility in compliance with Rule 62-730, F.A.C.

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- B.36 The Permittee shall manage used oil and used oil filters generated at the facility in compliance with Rule 62-710, F.A.C. and 40 CFR 279.12.
- B.37 The permittee shall comply with Rule 62-711.530, F.A.C., provisions (3) and (4), inclusive. The permittee shall submit an annual report to the Department's Southwest District Office not later than March on DEP Form 62-711.900(4).

SUBSECTION C. SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSIONS UNIT No.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 016	Raw Materials Processed	Material Handling (Fugitive) Handling and Storage (Fugitive)
ARMS No. 017	Raw Mill System	Raw Materials Handling
ARMS No. 019	Finish Mill System	Clinker Handling Cement Handling and Storage
ARMS No. 020	Coal Mill System	Coal Mill, Fuel Bin Coal Handling and Storage (Fugitives)

EMISSION LIMITATIONS

- C.1 The permittee shall not cause or allow to be discharged into the atmosphere visible emissions or particulate emissions that exceed the limits given in Table 1-1. [Rule 62-210.200., F.A.C. (Definitions - Potential Emissions)]
- C.2 In order to minimize excess emissions during startup/shutdown/malfunction these emission units shall adhere to best operational practices. [Rule 62-210.700., F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- C.3 This cement plant and associated equipment is allowed to operate continuously (8760 hours/year) [Rule 62-210.200., F.A.C. (Definitions - Potential Emissions)].

TEST METHODS AND COMPLIANCE PROCEDURES

- C.4 The maximum permitted allowable particulate emission rate (lb/hr and gr/dscf) from these emissions units are as stated in Table 1-1. The permittee shall demonstrate compliance by adhering to an opacity limit of 5% in lieu of particulate stack tests. [Rule 62-297.620(4), F.A.C.]

In accordance with Rule 62-297.620(4), minor particulate sources equipped with baghouses with visible emissions that are greater than or equal to 5 percent opacity shall require the permittee to perform a stack test in accordance with approved methods to verify compliance with the lb/hr emission limit contained in Table 1.1.

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- C.5 Compliance with the allowable emission limiting standards listed in Table 1-1 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800(7), F.A.C.

Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).

A protocol to determine fugitive emissions compliance with EPA Method 9 shall be submitted to DERM before applying for the Title V operating permit for this cement plant.

Testing of emissions must be accomplished within 90 to 100% of the permitted capacity [Rule 62-297.310(2), F.A.C]. Failure to submit the input rates and actual operating conditions may invalidate the test [Rule 62-297.310(2), F.A.C.].

These emission units shall comply with all applicable requirements of Rule 62-297.310 General Test Requirements and 40 CFR 60.8, Subpart A, Performance Tests.

- C.6 The visible emissions test, EPA Method 9, shall be conducted by a certified observer and be a minimum of 180 minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rule 62-297.310, F.A.C.]
- C.7 Should DERM have reason to believe the particulate matter standards set forth in Table 1-1 are not being met, DERM may require that compliance with the particulate emission standards be demonstrated by testing the subject emission unit. [Rule 62-297.620(4) and 62-297.310, F.A.C.]
- C.8 Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.].
- C.9 Particulate emissions from coal handling facilities shall be minimized by following the procedures listed below: [Rule 62-296.320(4)(c), F.A.C.]
- (1) All conveyers and transfer points shall be enclosed to preclude particulate emissions (except those directly associated with coal stacking/reclaiming).
 - (2) Coal storage piles shall be shaped, compacted and oriented to minimize wind erosion.
 - (3) Water sprays or chemical wetting agents and stabilizers shall be applied to storage piles, handling equipment, etc., during dry periods and as necessary to all facilities to maintain an opacity of less than 5 percent, except when adding, moving or removing coal from the coal pile, during which the opacity shall be no more than 20%.
- C.10 The fly ash handling system (including transfer equipment, flyash bin, and pneumatic system exhaust) shall be totally enclosed and vented through fabric filters.
- C.11 The provisions of Rule 62-296.320(4)(c) F.A.C., shall apply to all sources of unconfined particulate emissions, including but not limited to vehicular movement, transportation of materials, construction,

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

alteration, demolition or wrecking, or related activities such as loading, unloading, storing and handling.

Rinker shall follow the following protocol for the unconfined particulate matter (UPM, Fugitive Emissions):

- (1) The material handling activities at the plant covered by this protocol include loading and unloading, storage, and conveying of:
 - Limestone and overburden
 - Iron oxide source (coal ash, iron ore, or other)
 - Gypsum
 - Coal
- (2) The following reasonable precautions shall be implemented at the facility:
 - All materials at the plant shall be stored under roof on compacted clay or concrete.
 - The plant area shall be paved to limit the generation of UPM from truck and equipment traffic.
 - A sweeper truck shall be maintained and operated at the plant to limit dust buildup on paved surfaces.
 - All materials are to be received and used with excess surface moisture.
 - Water supply lines, hoses and sprinklers shall be located near all material stockpiles.
 - All plant equipment operators shall be trained in basic environmental compliance, and will perform visual inspections of materials before handling. If the visual inspections indicate a lack of excess surface moisture, the materials shall be wetted with the sprinklers. Such wetting shall continue until the materials can be handled without generating UPM.
- (3) The permittee shall "immediately collect" any spilled CKD to prevent fugitive emissions.

RECORDKEEPING AND REPORTING REQUIREMENTS

C.12 This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily Operation and Maintenance (O&M) log to include, at a minimum, the following information:

- (1) Calibration logs for all instruments.
- (2) Maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit.
- (3) All measurements, records, and any other data required to be maintained by Rinker shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to DERM or the FDEP staff upon request. DERM shall be notified in writing at least 15 days prior to the testing (auditing) of any instrument required to be operated by these specific conditions of certification in order to allow witnessing by authorized personnel. [Rule 62-4.070(3), F.A.C.]

Table I-1
 Allowable Opacity Limits (Minor Particulate Sources)
 Rinker Materials Corporation

Description	Control	Grain Loading (g/acf)	OPACITY	PM lb/hr	PM TPY	PM10 lb/hr	PM10 TPY
Emission Unit 016: Raw Material Processed							
Material Processing (Fugitive)	Reasonable Precautions		10		negligible		negligible
Crusher (Fugitive)	Reasonable Precautions		15		negligible		negligible
Paved and Unpaved Roads (Fugitive)	Reasonable Precautions		20		31.91		11.49
Emission Unit 017: Raw Mill System							
Raw Materials Handling							
Soil Bin	Baghouse	0.01	5	0.86	3.75	0.73	3.19
Transfer	Baghouse	0.01	5	0.60	2.63	0.51	2.23
Add Bin	Baghouse	0.01	5	1.71	7.51	1.46	6.38
Raw Meal Silo	Baghouse	0.01	5	1.10	4.81	0.93	4.08
Raw Meal Silo	Baghouse	0.01	5	1.37	6.01	1.17	5.11
Meal Transfer	Baghouse	0.01	5	1.37	6.01	1.17	5.11
Waste Soil	Baghouse	0.01	5	0.39	1.69	0.33	1.44
Waste Soil/Coal Transfer	Baghouse	0.01	5	0.60	2.63	0.51	2.23
Rail Transfer--Rail Cars	Baghouse	0.01	5	0.49	2.14	0.42	1.82
PM Transfer--Coal	Baghouse	0.01	5	0.49	2.14	0.42	1.82
PM Transfer--Gypsum	Baghouse	0.01	5	0.49	2.14	0.42	1.82
PM Feed Mill Transfer	Baghouse	0.01	5	0.49	2.14	0.42	1.82
PM Feed Mill Transfer	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Coal Transfer	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Coke/Coal Transfer	Baghouse	0.01	5	0.86	3.75	0.73	3.19
Soil Transfer	Baghouse	0.01	5	1.71	7.51	1.46	6.38
Emission Unit 018: Kiln System							
Raw Mill/Kiln/PH/PC/Cooler	Main Baghouse		10	44.00	192.72	37.40	163.81
Emission Unit 019: Finish Mill:							
Clinker and Cement Handling							
Clinker Storage Silo	Baghouse	0.01	5	0.39	1.73	0.34	1.47
Clinker Pan Conveyor	Baghouse	0.01	5	0.39	1.73	0.34	1.47
Clinker Retrofit Silo	Baghouse	0.01	5	0.39	1.73	0.34	1.47
Clinker Discharge Transfer	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Clinker Discharge Transfer	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Feed Bin	Baghouse	0.01	5	0.39	1.73	0.34	1.47
Additional Transfer	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Gypsum Bin Transfer	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Hyash Bin	Baghouse	0.01	5	0.60	2.63	0.51	2.23
Clinker Mill (Pulse Type)	Baghouse	0.01	5	2.31	10.14	1.97	8.62
Separator (Pulse Type)	Baghouse	0.01	5	6.17	27.03	5.25	22.98
Mill Return Conveyor	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Silo Feed Conveyor	Baghouse	0.01	5	0.49	2.14	0.42	1.82
Emission Unit 020: Coal Mill System							
Coal Mill	Baghouse	0.01	5	1.80	7.88	1.53	6.70
Coal Handling and Storage	Fugitive		20				
Fuel Bin	Baghouse	0.01	5	0.49	2.14	0.42	1.82
TOTAL				73.38	351.21	62.48	284.71

Table 1-2. Air Pollutant Standards and Terms.

FACILITY ID NUMBER: 0250014

Permittee:
Rinker Materials Corporation

Permit No.: 0250014-002-AC
Portland Cement Plant and Associated Equipment
Dry Process Technology

Emission Unit - Kiln System
Cement Plant Modernization

E.U. ID#	Description	Pollutant ID	Fuel(s) [2]	Allowable Emissions [3]		Equivalent Emissions [4]	Basis
				Permit limits	lb/hr	TPY	
ARMS #018	Kiln/Cooler/Raw Mill	PM	coal/gas/WTDF/oil	0.20 lb/ton kiln _{ph} feed *	44	193	RMC - Data
ARMS #018	Kiln/Cooler/Raw Mill	PM ₁₀	coal/gas/WTDF/oil	0.17 lb/ton kiln _{ph} feed *	37.40	164	RMC - Data
ARMS #018	Kiln/Cooler/Raw Mill	SO ₂	coal/gas/WTDF/oil	0.7 lb/MMBTU	306	1340	RMC - Data
ARMS #018	Kiln/Cooler/Raw Mill	NO _x	coal/gas/WTDF/oil	1.53 lb/MMBTU	671	2940	RMC - Data
ARMS #018	Kiln/Cooler/Raw Mill	CO	coal/gas/WTDF/oil	3.01 lb/ton clinker	412	1807	RMC - Data
ARMS #018	Kiln/Cooler/Raw Mill	VOC	coal/gas/WTDF/oil	0.1 lb/ton clinker	13.7	60	RMC - Data
ARMS #018	Kiln/Cooler/Raw Mill	H ₂ SO ₄ mist	coal/gas/WTDF/oil	0.014 lb/ton clinker	1.92	8.4	AP - 42
ARMS #018	Kiln/Cooler/Raw Mill	Beryllium	coal/gas/WTDF/oil	6.6x10 ⁻⁷ lb/ton clinker	9.04E-05	0.000396	AP - 42
ARMS #018	Kiln/Cooler/Raw Mill	Mercury	coal/gas/WTDF/oil	2.4x10 ⁻⁵ lb/ton clinker	3.30E-03	0.014	AP - 42
ARMS #018	Kiln/Cooler/Raw Mill	Lead	coal/gas/WTDF/oil	7.5x10 ⁻⁵ lb/ton clinker	0.01	0.045	AP - 42
ARMS #018	Kiln/Cooler/Raw Mill	VE	coal/gas/WTDF/oil	10% opacity			NSPS

ALLOWABLE OPERATING RATES

Kiln/Cooler/Raw Mill			
Hours of operation per year			8760
Kiln preheater feed rate (kiln _{ph}) *	TPH		220
Kiln Heat Input	MMBtu/hr		437
Clinker Production (1)	TPH		137
Cooler throughput rate	TPH		137

NOTES

- (1) At a maximum design clinker production rate of 137 TPH and preheater feed rate of 220 TPH, utilizing a conversion factor of 0.60: (220 x 0.60 = 137).
- (2) Fuel combustion as specified in Specific Condition No. B.5, and the protocols established by DERM. See also Specific Condition B.13.
- (3) Compliance Units. This facility shall demonstrate compliance based on these standards.
- (4) "Equivalent Emissions" are based on annual emissions at 8760 hrs/yr. The "Equivalent Emissions" are also listed for informational purpose and for PSD and recordkeeping tracking purposes.

Table 2-1. Compliance Requirements.

FACILITY ID NUMBER: 0250014

Permit No.: AC27-274892(A)
and PSD-FL-227(A)

Permittee:
Rinker Materials Corporation
Portland Cement Plant No. 2 and Associated Equipment

ARMS E.U. ID#	Description	Pollutant Name or parameter	Fuel(s) [1]	EPA/Reference Method/CMS *	Testing Time Frequency	Min. Compliance Test Duration	CMS * Compliance
018	Kiln/Cooler/Raw Mill	PM/PM ₁₀	Oil/Coal /Gas/WTDF	5 or 201/201A	initial/annual [8]	3 one-hr run	
018	Kiln/Cooler/Raw Mill	VE	Oil/Coal/Gas/WTDF	9/COMS	initial/annual/COMS	3 one-hr run	No [4]
018	Kiln/Cooler/Raw Mill	SO ₂	Oil/Coal/Gas/WTDF	CEMS	daily average	continuous	Yes [6]
018	Kiln/Cooler/Raw Mill	NO _x	Oil/Coal/Gas/WTDF	CEMS	daily average	continuous	Yes [3]
018	Kiln/Cooler/Raw Mill	CO	Oil/Coal/Gas/WTDF	10 [5]	initial/annual	3 one-hr run	
018	Kiln/Cooler/Raw Mill	VOC	Oil/Coal/Gas/WTDF	25 or 25A [2]	initial	3 one-hr run	
018	Kiln/Cooler/Raw Mill	H ₂ SO ₄ mist	Oil/Coal/Gas/WTDF	8	initial	3 one-hr run	
018	Kiln/Cooler/Raw Mill	Hg, Pb, Ba	Oil/Coal/Gas/WTDF	29	initial	3 one-hr run	
016 and 020	Fugitive sources	VE		9	Protocol [7]		
016 - 017 - 019 - 020	Minor Sources	VE		9	initial/annual	3 one-hr run	

Notes:

- [1] Initial compliance testing shall be conducted under all the scenarios this facility is planning to operate under. Specific condition B.13. Annual testing of emissions shall be conducted during the worst case scenario that this facility would normally operate under. Frequency of testing after initial compliance shall be determined by DERM. Fuels to be burned are specified in Specific Condition B.5.
- [2] VOC emission shall be tested initially to comply with the condition of this permit. Thereafter, compliance will be assumed provided the CO allowable emission rate is reached.
- [3] NO_x - The continuous emission monitor (CEM) data shall be used for the Kiln for compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.
- [4] Pursuant to 40 CFR 60, Subpart F, the kiln/cooler exhaust system shall be equipped with continuous opacity monitor system (COMS) to record the opacity at the stack to indicate proper maintenance and operation. Monitoring of the opacity of emissions shall be demonstrated by COMS pursuant to 40 CFR 60.63. Notification and recordkeeping shall be in accordance with 40 CFR 60.7 and 40 CFR 60.65.
- [5] Continuous process monitors for CO and/or O₂ to optimize combustion conditions for pollution control shall be part of the process.
- [6] SO₂ - The continuous emission monitor (CEM) data shall be used for the Kiln compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.
- [7] Protocol as approved by the Permitting Authority (DERM).
- [8] Rinker has the option of using Method 5 if they stipulate that all of the PM is PM₁₀.

* CMS [=] compliance demonstrated by a continuous monitoring system: CEMS or COMS.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ();
 - (b) Determination of Maximum Achievable Control Technology ();
 - (c) Determination of Prevention of Significant Deterioration ();
 - (d) Compliance with New Source Performance Standards (X); and
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

APPENDIX CSC
EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

SUBSECTION 1.0 CONSTRUCTION REQUIREMENTS

- 1.1 Applicable Regulations: Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-210, 62-212, 62-213, 62-296, 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Part 60, adopted by reference in the Florida Administrative Code regulation [Rule 62-204.800 F.A.C.]. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

SUBSECTION 2.0 EMISSION LIMITING STANDARDS

- 2.1 General Particulate Emission Limiting Standards. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). [Rule 62-296-320(4)(b)1, F.A.C.]
- 2.2 Unconfined Emissions of Particulate Matter [Rule 62-296.320(4)(c), F.A.C.]
- (a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions include the following:
- Paving and maintenance of roads, parking areas and yards.
 - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.

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- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

NOTE: Facilities that cause frequent, valid complaints may be required by the Permitting Authority to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

2.3 General Pollutant Emission Limiting Standards: [Rule 62-296.320, F.A.C.]

- (a) The owner or operator shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [F.A.C. 62-210.200(198)]

SUBSECTION 3.0 OPERATION AND MAINTENANCE

- 3.1 Changes/Modifications: The owner or operator shall submit to the Permitting Authority(s), for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. *Routine maintenance of equipment will not constitute a modification of this permit.* [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]
- 3.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Permitting Authority as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any

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liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

- 3.3 Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]
- 3.4 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]
- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Permitting Authority office for longer duration. [Rule 62-210.700(1), F.A.C.]
 - (b) Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
 - (c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify Permitting Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]
- 3.5 Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

SUBSECTION 4.0 MONITORING OF OPERATIONS

4.1 Determination of Process Variables

- (a) The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

SUBSECTION 5.0 TEST REQUIREMENTS

- 5.1 Test Performance Within 60 days after achieving the maximum production rate at which these emission units will be operated, but not later than 180 days after initial startup and annually thereafter, the owner or operator of this facility shall conduct performance test(s) pursuant to 40 CFR 60.8, Subpart A, General Provisions and 40 CFR 60, Appendix A. No other test method shall be used unless approval from the Department has been received in writing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emission unit(s) operating at permitted capacity pursuant to Rule 62-297.310(2), F.A.C. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C.]
- 5.2 Test Procedures shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. [Rule 62-297.310, F.A.C.]
- 5.3 Test Notification: The owner or operator shall notify the Permitting Authority in writing at least (30) days (initial) and 15 days (annual) prior to each scheduled compliance test to allow witnessing. The notification shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The (30) or (15) day notification requirement may be waived at the discretion of the Department. Likewise, if circumstances prevent testing during the test window specified for the emission unit, the owner or operator may request an alternate test date before the expiration of this window. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- 5.4 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Permitting Authority. [Rule 62-297.310(7)(b), F.A.C.]
- 5.5 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C..
- 5.6 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.
- 5.7 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new

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test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2) and (3)]

SUBSECTION 6.0 REPORTS AND RECORDS

- 6.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [Rule 62-4.160(14)(b), F.A.C.]
- 6.2 Emission Compliance Stack Test Reports:
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Permitting Authority as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]
 - (b) The *test report* shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in **Rule 62-297.310(8), F.A.C.**
- 6.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Permitting Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
- 6.4 Annual Operating Report for Air Pollutant Emitting Facility: Before March 1st of each year, the owner or operator shall submit to the Permitting Authority this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. [Rule 62-210.370(3), F.A.C.]

SUBSECTION 7.0 OTHER REQUIREMENTS

- 7.1 Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not preclude the permittee from securing any other types of required permits, licenses, or certifications.