

# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

November 30, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III  
Vice President of Cement Operations  
Rinker Materials Corporation  
1200 Northwest 137th Avenue  
Miami, Florida 33182

Re: DRAFT Permit Modification No. 0250014-006-AC  
Modernization Project, Revisions of Permit Conditions

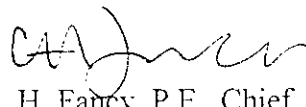
Dear Mr. Jenkins:

Enclosed is one copy of the Draft Air Construction Permit Modification for Rinker Materials Corporation's cement plant reconstruction project at 1200 Northwest 137th Avenue in Miami, Dade County. The Department's Intent to Issue Air Construction Permit Modification, the DRAFT Permit Modification, and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" must be published as soon as possible in a newspaper having general circulation in Dade County. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Ms. Teresa Heron or Mr. Linero at 850/488-0114.

Sincerely,

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

CHF/th/t

Enclosures

In the Matter of an  
Application for Permit Modification by:

Rinker Materials Corporation  
1200 Northwest 137th Avenue  
Miami, Florida 33182

DEP File No. 0250014-006-AC  
Dry Process Cement Plant  
Revision of Waste Fuel and Monitoring Conditions  
Dade County

### INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit Modification attached) for the proposed permit revisions, detailed in the application specified above, for the reasons stated below.

The applicant, Rinker Materials Corporation (RMC), applied on September 30, 1997 to the Department of Environmental Protection for modification of certain conditions in its air construction permit related to use of waste fuels and monitoring at the planned cement plant reconstruction project located at 1200 NW 137th Avenue in Miami, Dade County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a permit modification is required to revise the conditions of the approved air construction permit for the reconstruction project at the described facility.

The Department intends to issue this air construction permit modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed, "Public Notice of Intent to Issue Air Construction Permit Modification." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty days from the date of publication of "Public Notice of Intent to Issue Air Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

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 INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, REVISED TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION and DRAFT permit modification) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 11/30/98 to the person(s) listed:

James S. Jenkins, III, RMC \*  
Greg Worley, EPA  
John Bunyak, NPS  
John Koogler, P.E.  
H. Patrick Wong, DERM  
Jose Gonzalez, DERM  
Isidore Goldman, SED

Clerk Stamp

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

Charlatte J. Hayes 11/30/98  
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0250014-006-AC  
Rinker Materials Corporation  
Dade County

**NOTICE TO BE PUBLISHED  
IN THE NEWSPAPER**

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit modification to Rinker Materials Corporation (RMC) for revisions of certain conditions in its air construction permit related to burning of waste fuels and monitoring at the cement plant modernization project under construction at 1200 Northwest 137th Avenue in Miami, Dade County. A review for the Prevention of Significant Deterioration (PSD) and a Best Available Control Technology (BACT) determination were not required pursuant to Rules 62-212.400, F.A.C. The applicant's name and address are: Rinker Materials Corporation, 1200 Northwest 137th Avenue, Miami, Florida 33182.

On September 30, 1997, the applicant, Rinker Materials Corporation (RMC), requested revisions of its air construction permit which was issued on September 11, 1997. The original permit authorized replacement of two "wet process" cement kilns and associated clinker coolers having an annual capacity of 650,000 tons per year (TPY) with a single 1,200,000 TPY "dry process" coal and petroleum coke-fired kiln including preheater, precalciner, and clinker cooler. Annual emission limits and actual emissions will be generally reduced or increased by an insignificant amount as a result of the planned project. The original notice was published in the Miami Herald on June 28, 1997 and referenced use of tires and used oil as fuels, as well as processing of oil filters, booms, rags, unused diapers, non-chlorinated plastic wastes, and sewage sludge.

The revised permit will: exclude burning of sewage sludge; establish specific limits on the amounts of the waste materials burned; specify the feed point for tires and wastes into the kiln; set limits for halogen concentrations in used oil; allow burning of off site generated used oil; and delete a temperature kiln requirement rendered unnecessary by these revisions. Clarifications will be made regarding the method to estimate exhaust gas flow and that cement plants have been specifically exempted by the USEPA from the requirements of 40CFR60, Subpart Eb, Standards of Performance for Large Municipal Combustors.

No hazardous waste will be burned on the site. All cement kiln dust will be recycled into the clinker product. Pollution control equipment consists of a common fabric filter system (baghouse) for particulate emissions from the kiln and cooler; absorption of sulfur compounds and metals into the product; combustion controls for volatile organic compounds and carbon monoxide; indirect firing, multiple burn points and other combustion controls for nitrogen oxides; and baghouses for particulate emissions from other process emission units.

The Department will issue the final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida, 32301 Telephone: 850/488-0114 Fax: 904/922-6979	Dade County Department of Environmental Resources Mgmt 33 SW Second Avenue, Suite 900 Miami, Florida 33130-1540 Telephone: 305/372-6925 Fax: 305/372-6954	Dept. of Environmental Protection Southeast District Office 400 North Congress Avenue West Palm Beach, Florida 33401 Telephone: 407/681-6600 Fax: 407/681-6755
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The complete project file includes the Draft Permit modification, Technical Evaluation and Preliminary Determination, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

**TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION**

**RINKER MATERIALS CORPORATION  
MIAMI, DADE COUNTY, FLORIDA**

**Portland Cement Manufacturing Facility  
Modernization and Expansion Project  
Revision of Fuel Combustion and Monitoring Conditions**

Permit No. 0250014-006-AC

Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

November 30, 1998

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## I. APPLICANT NAME AND ADDRESS

Rinker Materials Corporation  
1200 NW 137th Avenue  
Miami, Florida 33182

## II. FACILITY INFORMATION

### **A. FACILITY LOCATION**

Rinker Materials Corporation (RMC) plans to modernize the existing Miami Cement plant by replacing the wet -process cement plant with a 1.2 million TPY clinker dry-process cement production line [137 ton of clinker per hour (TPH)] at its existing Miami cement facility.

This site is approximately 8.2 kilometers to the Everglades National Park, a Class I PSD Area, and in an ozone (O<sub>3</sub>) maintenance areas in Dade County. The USGS Hialeah SW quadrangle map, and a map of the Everglades National Park were compared. The northeast corner of the Park, bounded by U.S. 41 to the North and Levee No.31N to the east, is the nearest point to the Rinker facility. The UTM coordinates of this facility are Zone 17, 558.20 East and 2851.20 km North.

### **B. FACILITY CLASSIFICATION CODE (SIC)**

Major Group No. 32, Clay, Glass, and Concrete Products  
Industry Group No. 324 Cement, Hydraulic  
Industry No. 3241 Cement, Hydraulic

### **C. FACILITY CATEGORY**

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 (HAP). 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 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 (CO), volatile organic compounds (VOC), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), or particulate matter (PM/PM<sub>10</sub>) characterize the existing 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).

Per Table 212.400-2, modifications at the facility resulting in emissions increases greater than 40 TPY of NO<sub>x</sub> or SO<sub>2</sub>, 7 TPY of SAM, 25/15 TPY of PM/PM<sub>10</sub>, 3 TPY of fluorides, 1200 pounds per year (lb/yr) of lead or 200 lb/yr of mercury require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.400, F.A.C.



# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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The approved Rinker modernization project was not subject to New Source Review including provisions for the Prevention of Significant Deterioration of air quality (PSD) because the modernized plant is expected to result in less air pollution than the existing plant. This is primarily due to the lower fuel requirements per unit of product characteristic of the dry processes. Although there will be an increase in cement production capacity as a result of the proposed project, there will be a reduction in the emissions of most air pollutants. The changes resulting from this additional permit revision are not subject to PSD review.

The approved modernization constituted a reconstructed Major Source of HAPs because emissions of hydrogen chloride exceed 10 TPY. The industry is on a key list for which Maximum Achievable Control Technology (MACT) standards will be promulgated by the USEPA. The approved modernization was not subject to the requirements of Section 112(g) of the Clean Air Act requiring case-by-case MACT determinations by states for new or reconstructed Major Sources of HAPs when a standard has not yet been proposed by EPA. 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 Department's Intent. It was clarified in the Final Determination that the modernization permit does not constitute a MACT determination.<sup>1</sup> Instead, the facility will be subject to the requirements of EPA's future cement industry MACT as an existing facility.<sup>2</sup>

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. At the time the modernization permit was issued, the facility was subject to at least the co-fired combustor reporting requirements of 40 CFR 60, Subpart Eb, Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994.

### III. PROJECT DESCRIPTION

The Department issued a permit to RMC on September 11, 1997 to modify the existing wet process plant by incorporating the modern dry process technology including a preheater and precalciner along with indirect firing. The dry process preheater/precalciner (PH/PC) kiln is the most fuel efficient cement pyroprocessing technology currently available. Thermal efficiencies will be improved with the PH/PC kiln and the amount of fuel combusted per ton of clinker produced is expected to be reduced.

The modernized cement plant will produce up to 137 TPH of clinker (highest maintained rate over a day). The annual potential production rate will not exceed 1.2 million TPY of clinker. The major equipment will include a PH/PC kiln, a clinker cooler, raw mill, finish mill, silos, conveyers, and particulate control/dust collection and recycling equipment. The cement product will be stored in silos and shipped in bags or in bulk by rail or truck.

The existing Rinker facility consists of a quarry, limestone crushing system, material receiving facilities both by rail and truck, open short-term material storage piles, a storage building for intermediate raw material and clinker storage, a soil dryer, two raw mills, kiln feed slurry system, two kilns, two coolers, five finish mills, four pack houses, thirty cement silos, a rail and truck bulk loadout facility, and, a liquid fuel tank farm.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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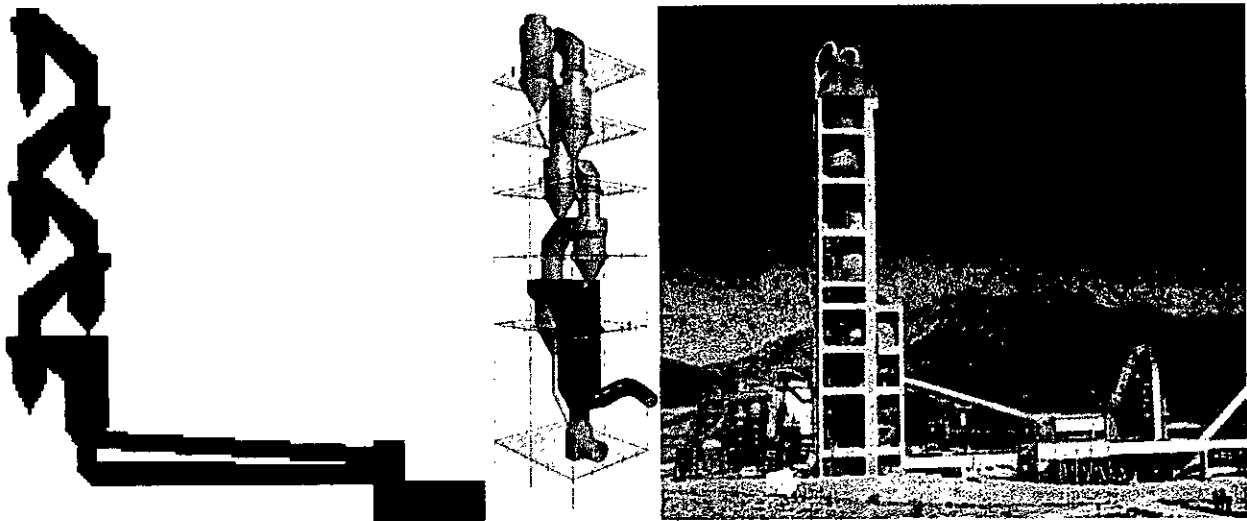
The modernized plant will include limestone crushing, limestone premixing and storage, raw grinding, blending and kiln feed, pyroprocessing, clinker storage, coal grinding, and additional finish mill and cement transport to existing silos. The existing quarry operation, soil dryer, five finish mills, packhouses, and , cement silos will remain in operation.

The specific description of the modernization project given in the original application is as follows:<sup>3</sup>

- A new primary crushing facility will be constructed.
- A new raw materials handling system
- A new raw mill system and new raw meal handling and storage equipment will be constructed
- The existing two wet process cement kiln will be replaced with a single dry process kiln with a preheater and a precalciner
- The existing two clinker coolers will be replaced with a new single clinker cooler
- New clinker handling and storage equipment will be constructed
- A new coal/coke preparation system will be constructed. This will allow indirect firing of coal/coke.

## IV. PROCESS DESCRIPTION

A complete process description provided in the Technical Evaluation and Preliminary Determination issued for the modernization project on June 23, 1997. Although Rinker has not formally advised the Department of the precise manufacturer, the pyroprocessing equipment is believed to be a Fuller kiln with a preheater tower including an in-line calciner. Following are diagrams and a picture of such an arrangement.<sup>4</sup>



In the above arrangement, the raw materials flow downward through the tower and from left to right through the kiln. The materials are progressively heated, calcined and converted to the various compounds comprising clinker. The product clinker is discharged into the cooler which is

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

to the right of the kiln. Fuel is provided primarily through the main burner on the hot (right) side and separately to the calciner which is the larger vessel toward the bottom of the tower. Tertiary air is provided from the cooler to the calciner via the duct shown above the kiln. The maximum gas temperature occurs in the vicinity of the main burner and is progressively lower from right to left and from the bottom of the tower to the top.

## V. FUELS AND RAW MATERIALS

According to the report accompanying the application, raw materials include limestone, waste soil, bottom ash, staurolite, mill scale, gypsum, Krome rock, and fly ash.<sup>5</sup>

According to the original application, the fuels to be combusted are coal, petroleum coke, natural gas, LPG, No. 2 fuel oil, residual oil, used oil, and solid waste. The solid waste was described as "combustion of non-hazardous solid waste at up to 40 percent of heat input, including but not limited to:"

- Whole tires and/or tire-derived fuel (TDF)
- Oil filters
- Booms and rags from spill cleanup
- Unused diapers
- Paper products
- Plastics waste from non-chlorinated plastics
- Sewage sludge from publicly owned treatment works

Following receipt of the original application, the Department requested that Rinker "explain how the listed fuels are going to be used (start up, main, supplementary, or emergency fuels) and the proposed annual heat input usage (20%, 40%, etc.). If these fuels have been permitted before, list the permit number and state the specific condition that restricted fuel usage (rate, sulfur content, etc.)."<sup>6</sup>

The following information was provided within Rinker's response:<sup>7</sup>

Fuel	Use	Percent Heat		Permit AO13-233208	Restrictions
		Proposed	1993-96		
Natural Gas	Startup, Supplemental	100	2-10	Description a), SC 8	None
Coal	Main	100	0-74	Description a), SC 8	None
Pet Coke	Main	100	0-73		
Propane	Supplemental	100	0	Description a), SC 8	None
No. 2 Fuel Oil	Startup, Supplemental	100	0	Description a), SC 8	Virgin Oil
Residual Oil	Supplemental	100	0	Description a), SC 8	Virgin Oil
Used Oil	Supplemental	100	13-25	Description a), SC 8	On or Off-Spec
Tires, Other	Supplemental	40	1-2	Description b), SC 8	Whole Tires, 40 % Heat

The Department noted that "based on our records (e.g. AO13-172954) it appears that these wastes (diapers, paper, plastics, and sewage sludge) were not permitted before" and requested the following information:<sup>8</sup>

- Test data or estimates from other cement kilns burning these types of waste

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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- Source and quantity of unused diapers
- Source, type, and quantity of paper products to be burned
- Source, type, and quantity of non-chlorinated plastics
- Percentage and amount of sewage sludge (dry basis)
- Percentage of heat input from each waste

Rinker identified no test data, emissions estimates, source, or quantity for diapers, plastics or paper. No information was provided regarding sewage sludge except that Rinker referred the Department to a report believed to be in Department files from Florida Crushed Stone.<sup>9</sup>

## VI. ORIGINAL PERMIT CONDITIONS

Although Rinker has burned a very minimal amount of tires in recent years, the Department assumed that the facility would actually burn up to about 30 percent tires. This is a reasonable practical limit which is equal to the percentage burned during testing conducted by Rinker in 1993, but less than the permitted limit of 40 percent at the existing wet process plant.<sup>10</sup> The Department assumed that sewage sludge would at times significantly contribute to the overall amount of solid waste fired in the kiln. It was known that injection of sewage sludge into a section of the preheater/calcliner arrangement has been practiced at Mitsubishi Cement in California with at least some ammonia-based NO<sub>x</sub> control.<sup>11</sup>

The Department basically assumed that a 40 percent limit by heat input would suffice to allow Rinker the flexibility to burn 30 percent tires, 10 percent sewage sludge, and *minimal* amounts of other materials including paper, plastics, unused diapers, and *on-site generated* oil spill cleanup material. Conditions regarding solid waste fuels are given in the approved modernization permit are as follow:<sup>12</sup>

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

At the time that the permit was issued, cement plants were included in the proposed NSPS for municipal waste combustors.<sup>13</sup> The Department limited the amount of *municipal* solid waste to 30 percent or less (by weight) to provide a federally-enforceable limitation to insure that only the Co-fired Combustor Reporting Requirements applied. Such a condition was previously included in permit revisions for Osceola and Okeelanta Cogen facilities that burn primarily bagasse,

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vegetative waste, and small amounts of yard waste. The latter can be construed to be municipal solid waste and, without the 30 percent limit, subject the facilities to all of the provisions of Subpart Eb.

Additionally, the Rinker facility could not have practicably burned more than 10 megagrams per day (11 TPD) of materials that can be construed as municipal solid waste. This is based on 40 CFR 60, Subpart Eb, Section 60.50b., Applicability and Delegation of Authority which states:

*"Any waste combustion unit at a medical, industrial, or other type of waste combustor plant that is capable of combusting more than 35 megagrams per day of municipal solid waste and is subject to a federally enforceable permit limiting the plantwide maximum amount of municipal solid waste that may be combusted to less than or equal to 10 megagrams per day is not subject to Subpart Eb if the owner or operator: (1) Notifies the Administrator of an exemption claim; (2) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 10 megagrams per day; and (3) Keeps records of the amount of municipal solid waste fired on a daily basis".*

The original Technical Evaluation indicated that Chapter 24 of the Dade County Code is applicable to this project. Chapter 24 prohibits resource recovery and management facilities within well field protection areas.<sup>14</sup> According to the Dade County Code, a Resources Recovery and Management Facility means:<sup>15</sup>

*Any facility the purpose of which is disposal, recycling, incineration, processing, storage, transfer, or treatment of solid or liquid waste; but for the purpose of permitting does not include sewage treatment, industrial waste treatment, or facilities exclusively within State or Federal jurisdiction.*

Clearly the purpose of the facility is to make cement. However as the amount and variety of solid waste is increased, additional "facilities" are required to receive, store, transfer and incinerate solid waste. Dade County can evaluate the purpose of the main facility and support facilities in accordance with its rules and ordinances.

### **VII. INITIAL PERMIT REVISIONS REQUESTED**

The Department issued the Intent and Draft Permit on June 23, 1997. Rinker did not comment on any conditions related to fuels or solid waste. The Department and Rinker had continuing discussions regarding the applicability or non-applicability of Section 112(g) of the Clean Air Act.<sup>16</sup> This matter was resolved. On September 11, 1997, the Department issued the Final Permit with the standard (District Court) appeal language.

On September 30 the Department received a request from Rinker for an extension of the time to comment on the final permit and a separate request to incorporate "a few administrative comments regarding the permit; none of which will change the intent of the permit, the way the plant is operated or emissions from the plant."<sup>17, 18</sup> The changes requested were as follows:

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- That burning of non-hazardous solid waste, oil filters, booms and rags from spill cleanup, not be limited to items generated on site. The company wishes to burn the same materials from off-site generators.
- That the kiln exit temperature requirement of 1750 °F be deleted.
- That the halogen limit for on-specification used oil be increased from 1000 to 4000 ppm.
- Required use of an "F factor" to calculate combustion gas volume be replaced with the flow rate from a Continuous Stack Gas Flow Monitor (CSGFM).
- Deletion of requirement to spray tires with insecticides.

The comment period extension request was rescinded by Rinker by a letter received on October 27, 1997 after learning that the comment period does not apply to final permits.<sup>19</sup> The Department informed Rinker that it was necessary to submit a \$250 fee to process the request for the changes.<sup>20</sup> After receiving the fee, the Department evaluated the request as a new application.

### VIII. EVALUATION OF INITIAL REVISION REQUEST

The Department issued an Intent, Public Notice, Draft Permit Modification, and a Technical Evaluation and Preliminary Determination basically agreeing with all of Rinker's requests. A more specific provision was included to insure the total amounts of all solid wastes would remain minimal as understood by the Department and as required by Subpart Eb to avoid the municipal waste combustor emission limits. The limit was specifically proposed at 10 megagrams per day as discussed above.<sup>21</sup> It was implicit in the original permit for the reasons previously mentioned.

Prior to issuance of the Intent, the Department contacted Rinker's consultant to discuss whether there was any urgency in modifying the permit and to advise that the Department would include the proposed waste limitation. The consultant raised no objection to the proposed limit and indicated no urgency in receiving the modification.<sup>22</sup>

#### **Spill Cleanup Materials**

In its September 26, 1997 letter request, Rinker stated that "it has never been the intention of Rinker to have these materials limited to on-site generated materials." The Department, as discussed above, had reason to believe that only minimal amounts of any solid wastes, except tires and sewage sludge would be burned. It was assumed that the need to burn spill materials derived from on-site contingency plans. The original application showed no plans for receiving and handling equipment for such materials.

In the February, 1998 Technical Evaluation pursuant to the letter request, the Department indicated its intent to allow processing of off-site generated materials.

The Department indicated that the (small quantities) of these materials are readily destroyed at the very high kiln temperature. Additionally, the Department indicated its opinion that the precalciner acts "much like an afterburner by further incinerating incompletely burned gases." This clearly indicates that the Department understands that these materials are to be burned in the kiln rather than in the precalciner.

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## **Kiln Temperature Requirement**

The current permit requires that kiln temperature reaches at least 1400 °F prior to introduction of tires. Thereafter the permit requires that gases exiting the kiln be maintained at a minimum temperature of 1750 °F. The rationale is given in the Technical Evaluation accompanying the draft of the current permit. It states:

*"Tires will not be fed until the kiln is hot enough to support proper combustion and the temperature maintained high enough to destroy dioxins and furans."*

With the understanding that the tires would be fed directly into the kiln, and with the pre-calciner acting much as an afterburner, the Department determined that the kiln temperature requirement can be dropped. The temperatures in the precalciner (actually an in-line calciner) will reach at least 1750 °F obviating the need for a high temperature at the kiln exit. This is discussed in the first technical evaluation following the letter revision request. The Department still considers this conclusion to be proper as long as tires are introduced directly into the kiln, rather than into the precalciner or duct riser.

It is noted that a description of the equipment or the manner by how tires will be received and introduced into the kiln has not yet been provided by Rinker.

## **Used Oil Halogen Limit**

Rinker pointed out that the halogen limit could be increased from 1,000 to 4000 ppm if it can be shown that the higher value is not "as a result of the mixture of a hazardous waste." The Department indicated in the initial review that chlorides will be limited by practical considerations to meet cement specifications while wasting no cement kiln dust and "to control buildups of deposits on preheater and other surfaces." According to the literature, "in some specific instances, however, concentrations of approximately 0.1 percent (1000 ppm) by weight, were found at which that level could be of significance for the kiln operation." Also "increased chloride feed into the kiln reinforces the tendency to coating and ring formation."<sup>23</sup>

Increased chloride into the kiln, also increases both the potential for dioxin and hydrogen chloride formation. As pointed out in the technical evaluation "dioxin formation potential is minimized by the very high temperatures of combustion followed by low temperatures required for baghouse operation." However, no specific information or opinions have been provided by Rinker to corroborate the Department's assessment.

## **Flow Measurement**

Rinker pointed out that use of "F factors" (an estimate of the volume of exhaust gas produced from fuel combustion) to calculate mass emission rates "is not appropriate" for cement plants "A significant fraction of carbon in the stack gas (as carbon dioxide) is present as a result of the calcining of limestone (rather than combustion of fuel)" The Department agrees with this assessment.

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## Tire Insecticide

Rinker stated that the tires will be received in enclosed vans and stored in these vans until they are fed into the tire feeding mechanism. "There is no opportunity for the tires to be exposed to rain during storage and to accumulate rainwater. As a result, the requirement to spray the tires with insecticide is unnecessary."

In its initial evaluation, the Department agreed with Rinker. "Deleting the requirement, means that the insecticide will not contribute to formation of hydrogen chloride or dioxins and furans." Again, no actual details about the vans, any pretreatment, etc. were provided by Rinker.

## VIII. RINKER RESPONSE

The Department's February 11, 1998 Intent provided Rinker with a period of 14 days to file for a petition following receipt of the Intent. It also provided 14 days following publication to receive comments related to the proposed permitting action. Rinker did not publish the required Public Notice or file for a petition or for an extension of the time to file a petition. Instead Rinker submitted comments approximately three weeks after issuance of the Intent.<sup>24</sup> The main comments were:

*"In this particular case, there is no relocation and no modification that could be expected to cause new or greater environmental impacts. It is our opinion that none of the modifications to the permit are substantial enough to require a second Public Notice."*

*"Our further reading of 40 CFR 60.50b, Applicability and Delegation of Authority exempts cement kilns firing municipal waste from the Subpart."*

Unsuccessful attempts were made by the Department to discuss the matters directly with Rinker's environmental representatives. Heretofore, neither the Department nor Rinker had been aware that Subpart Eb had exempted cement plants after issuance of the Department's original Intent. Instead, the Department was contacted by the consultant to discuss the issues.<sup>25</sup> The consultant was advised that Rinker should publish the Notice and that the Department would review Rinker's comments as well as any additional comments. The consultant stated he would take the recommendation "under advisement."

Because there appeared to be a misunderstanding, the Department rescinded the Intent and informed Rinker in writing that "we understand that a key Federal Standard that was applied to sources (including cement plants) burning municipal solid waste was revised to exempt cement plants. This occurred after publication of the Public Notice for the Modernization Project. The request to remove all provisions of the Federal Standard was not made in the September 26, 1997 request to revise the permit, but rather in the aforementioned response we received on March 4, 1998."<sup>26</sup>

The Department advised that "generally it (public notice) is required for anything but very minor corrections. It is also required to insure that changes in permit requirements like deletions of kiln exit temperature, are recognized by EPA. We will contact Rinker shortly to visit the plant and



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gain a better understanding of the precise plans covering the burning and reporting of the various solid waste streams now that the Federal Standard has exempted cement plants from the solid waste rules and reporting requirements.”

A letter was received shortly thereafter from Rinker’s consultant.<sup>27</sup> It identified three main issues based on the mentioned contact from the consultant. These were described as:

*The Department’s “insistence on requiring public notice for this permit modification, regardless of the provisions of Chapter 62-103.150(2)(a)5., F.A.C.”*

*The insistence on “retaining the Department-initiated rewording of Specific Condition B.5(1)d., which would unduly restrict the use of the described supplemental fuel materials from a permitted level of 30% of the total heat input to less than 3% of total heat input.*

*The “reversal on the deletion of the kiln temperature requirement, which was deemed acceptable in (the Department’s) Technical Evaluation and Preliminary Determination.*

The letter concludes that the (draft) permit modification is “more restrictive” than the existing permit and “offers little net benefit.” The letter included what is in-effect an update of the revision application. The specific items requested are:

- Deletion of NSPS Subpart Eb from the list of applicable requirements in the original permit.
- Deletion of Specific Condition B.5(1)d. (limiting solid waste other than oil spill materials, sewage sludge, and tires to 10 megagrams per day) from the Department’s draft modification.
- Revision of a paragraph in Specific Condition B.11 for consistency with Department rules.
- Deletion of Specific Condition B.20.B.(1)&(2) in the Department’s draft modification related to recordkeeping and 40 CFR 60 Subpart Eb. Addition of an alternative recordkeeping and reporting Specific Condition.
- Renumber Specific Conditions as appropriate.
- Provide an Intent to Issue without a Public Notice requirement.

A detailed discussion as to why Rinker believes a public notice is not required was presented. Rinker’s justification for the requested changes was provided.

A meeting to discuss the matter was held between Department, Dade County DERM (by telephone) and Rinker representatives, including Rinker’s consultant. It was the expressed view of Rinker’s representative that the issues were resolvable. He also indicated that the company did not want an updated revision to be issued soon (presumably if a public notice is required). He said that time was needed to discuss details with Dade County DERM about the processing of solid wastes. This was necessary because a waiver to the previously mentioned ordinance is apparently required to burn waste materials at the plant.

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In discussions regarding Dade County's ordinance against disposal or recycling facilities in wellfields, the Department mentioned that sewage sludge appeared problematic. Additionally, the Department representatives mentioned that while burning sludge might be of some help in controlling NO<sub>x</sub>, it could cause odor and would require additional fan capacity because of the water volume. Rinker responded that they do not want to burn sewage sludge and had planned to do so only at the request of Miami-Dade Water and Sewer Department.

## IX DEPARTMENT INFORMATION REQUEST

The Department followed up the meeting with a letter basically stating its understanding of the issues, specifically requesting additional information, and advising that the application was incomplete. The request is reproduced here as follows:

1. References to the emission guideline applicable to municipal waste combustors will be removed because of the exemption of cement kilns from the regulation.
2. A Public Notice of Intent to Issue will be published by RMC. Objections from the public are limited to only the modifications of the permit, but not the construction of the project as presently permitted.
3. Dade County DERM, who attended the meeting by teleconference, has taken the position that their rules apply to the burning of solid waste materials by resource recycling and management facilities in wellfield protection areas. RMC will work directly with DERM to sort out those issues. In this regard, the addition of permit conditions regarding certain off-site generated wastes (e.g. oil spill wastes, oil filters) is subject to challenge by DERM or the public. Obviously some kind of agreement between DERM and RMC for burning the described wastes needs to be reached apart from this permitting action.
4. We requested a more precise description of where and how the various wastes will be introduced within the pyroprocessing operation and provided your (Rinker's) representatives with examples on how they should be presented.
5. It was agreed that sewage sludge will not be processed. Although there are some benefits to introducing this material into the process, there are some potential downsides. These include increased recirculations of various metals within the kiln, potential mild odors, and possible need for increased fan capacity.
6. It was pointed out by the Department that the permitted level of heat input from tires (40 percent) appears high. Our review of various references, reveals that the practical limit is approximately 25-30 percent as a maximum. Based on EPA and State of California documents on tire and tire-derived fuel burning as well as our discussions with industry experts, we suggest that 25 percent is a more reasonable and supportable limit. We therefore request your concurrence in lowering the heat input limit from tires accordingly. Please submit the total weight (tons/hr) of tires.
7. It was agreed that the kiln temperature requirement while burning tires will be deleted with the understanding that tires and tire derived fuel will not be introduced via the precalciner so that it may act somewhat as an afterburner. A protocol describing how and where tires will be introduced and the temperature needed for good combustion should be provided by RMC.

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8. It was agreed that in any case, the amount of heat input from wastes that can be characterized as solid waste needs to be limited to less than 30 percent by weight rather than by heat input. This is to insure that the kiln cannot be characterized as a municipal waste combustor per Section 129 of the Clean Air Act. Please submit the total weight (ton/hr) of the plant's fuel stream.
9. Estimates of the expected amount of waste from each category need to be provided. For example, neither RMC nor the Department would actually expect a stream of 30 percent unused diapers to be burned in the kiln. We have supplied Koogler and Associates with examples of permit conditions for combusting similar segregated wastes at resource recovery facilities.
10. Regarding Comment No. 6 contained in the April 10 letter from Koogler and Associates, please provide the kiln's emission characteristics of a shutdown and malfunction and explain the type of malfunction that will be excluded from the daily average. Regarding this comment, the Department has previously negotiated this CEMs requirement with another cement plant and agreed to the condition as written in Rinker's permit. Please refer to the attached December 13, 1996 letter from RTP Environmental Associates Inc. Please be advised that Florida Crushed Stone is also permitted to construct a dry process cement kiln with preheater and precalciner.

The Department contacted Rinker to advise that it was actually required to take action soon on the permit modification because it was necessary to replace the rescinded draft in order to avoid a default of the "90 day clock."<sup>28</sup> Rinker advised that it did not want the Department to act yet and provided a letter extending the clock until August 14. Two subsequent extensions (to October 12 and November 30) were provided by Rinker at its convenience so that "Rinker and the Department can resolve any existing issues between them."<sup>29</sup> Upon expiration of the final request on November 30, the Department is required by the specific terms of the extension only to Issue an Intent rather than a final permit at this time.

A short meeting was held with Rinker's consultant in late September. It was emphasized that a response was required in order to act (by October 12) on the revision request and that the Department would act soon without the benefit of a response. His stated position was that the application was complete before the Department asked for the additional information. He did go over his position on some of the items. He stated that an agreement had been reached with Dade County DERM regarding the materials that can be burned. A copy of a proposed list of fuels to be fired was provided by Rinker's consultant to DERM who in-turn forwarded the list to the Department.<sup>30</sup> The forwarded fax from DERM included the comment:

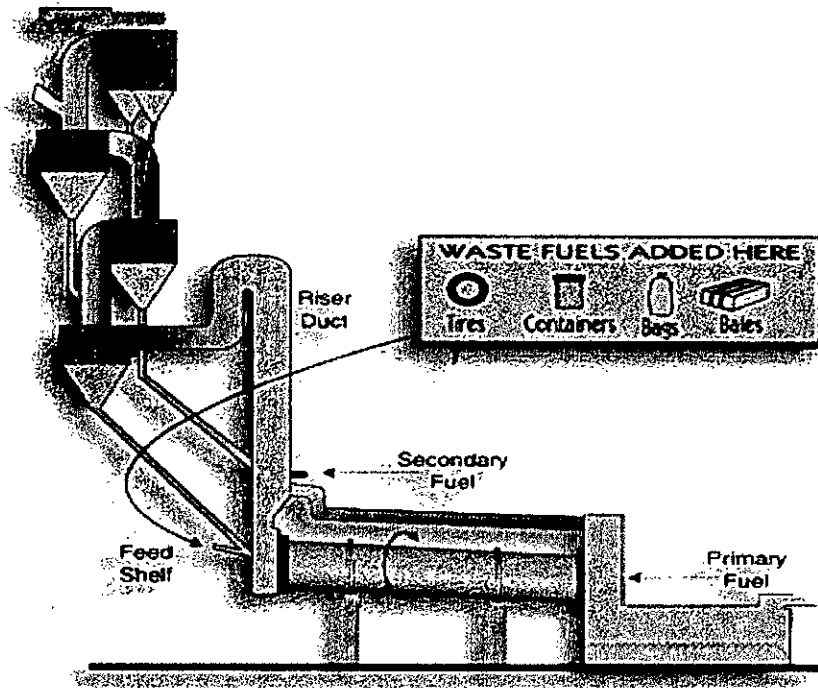
*"Following is the fax from (Rinker's consultant) dated 9/21/98, which accurately reflects the changes language we agreed on with Rinker. Bear in mind that the Condition 2)(i) is explicit and limited to what non-hazardous industrial by-product materials may be burned as supplemental fuel."<sup>31</sup>*

Following receipt of the final waiver request (to November 30), the Department met with Rinker and its consultant to discuss the issues again.<sup>32</sup> It was again emphasized by the Department that the requested information was needed to process the application and that action would be taken soon rather than waiting until the most recent waiver expired.

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Rinker's consultant presented a letter at the meeting in response to the Department's May 5 information request.<sup>33</sup> Following are Rinker's responses, dated October 26, 1998. These are paraphrased in some cases and numerically arranged per the 10 items in the Department's request:

1. - 3. Declaratory. No response necessary.
4. All solid supplemental material will be introduced in the vicinity of the feed shelf, as depicted in the drawing, "A typical Precalciner Cement Kiln," included as Attachment 1.



5. Declaratory. No response necessary.
6. Rinker has reasonable assurance that tire-derived fuel could exceed 25 percent of the pyroprocessing system's heat input and approach 40 percent while meeting all applicable emission standards and producing acceptable clinker. Rinker claims that heat input has exceeded 45 percent during "practice compliance runs" on its existing wet process kilns. Rinker believes that other cement producers are constrained in heat input from tires for various reasons (including fuel and tire availability, raw materials, air flow, production parameters, etc.)
7. Tires and tire-derived fuel will be introduced in the vicinity of the feed shelf. This will allow the precalciner to act as an afterburner. The establishment of a temperature to replace the temperature requirement is of little practical value.
8. Rinker has reasonable assurance that the exemption from NSPS Subpart Eb, will ensure that the kiln cannot be characterized as a municipal waste combustor per Section 129 of the Clean Air Act (thus making it unnecessary to limit wastes to 30 percent by weight). Rinker mentioned that it is considering burning aspirin for its sugar (fuel) and calcium carbonate (raw material) content.

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8. Rinker has reasonable assurance that the exemption from NSPS Subpart Eb, will ensure that the kiln cannot be characterized as a municipal waste combustor per Section 129 of the Clean Air Act (thus making it unnecessary to limit wastes to 30 percent by weight). Rinker mentioned that it is considering burning aspirin for its sugar (fuel) and calcium carbonate (raw material) content.
9. It is premature for Rinker to provide fuel stream makeup at this time. It is reasonable to expect that any of the permitted fuels will (be) burned in amounts approaching the permitted amounts (30 percent by heat input).
10. The kiln's emission characteristics during a shutdown will be similar to those characteristics during startup when no clinker is being produced. Rinker provided several examples of what types of malfunctions can occur with the air pollution control equipment.

Rinker advised that more details would be provided in terms of a matrix indicating the types of materials and amounts that might actually be combusted. The Department emphasized that its understanding all along had been that the amounts would be minimal and that only the unexpected exemption (effective after issuance of the original permit) presented a realistic possibility to combust substantial amounts of solid waste. While expanding the list of allowable supplemental fuels to include off-site generated oil spill materials, the Department believes that reasonable assurance needs to be provided that the higher quantities can be properly burned.

Given that additional information would be provided, the Department agreed to consider increasing the amount of solid waste burned (besides oil spill materials and tires) from the 10 megagrams per day (11 tons per day) proposed in the previous draft to 30 percent by heat input. Including tires this value is 40 percent or approximately 160 tons per day per Rinker's original application.

No additional information was provided by Rinker. The Department is acting based on the information received in the above response.

### X. EVALUATION OF UPDATED REVISION REQUEST

Rinker has stated that it actually intends to burn 40 percent solid wastes including tires, oil filters, oil spill materials, paper, non-chlorinated plastics, unused diapers, and as-yet unspecified wastes (such as aspirin). Within the 40 percent, Rinker stated that it will actually burn the full 40 percent as tires and tire-derived fuel. Within the 40 percent Rinker stated in its October 26, 1998 letter (Item 9) that it might burn up to 30 percent (i.e. 3/4 of the allowable waste) as any single one of the supplementary materials identified.

As stated, the amount of waste is equal to 160 tons per day, which is well within the capacity of combustors that EPA intends to regulate by present and future rulemaking. In conversations with EPA, the Department was advised that cement kilns were dropped from Subpart Eb because the Portland Cement Association reported that none of its members burns more than 30 percent solid waste (by weight).<sup>34</sup> This allowed the final rule to be promulgated while EPA re-evaluates applicability to small (less than 250 TPD) combustors and eventually cement kilns. Actually the view expressed by the industry was that cement kilns do not burn municipal solid waste.

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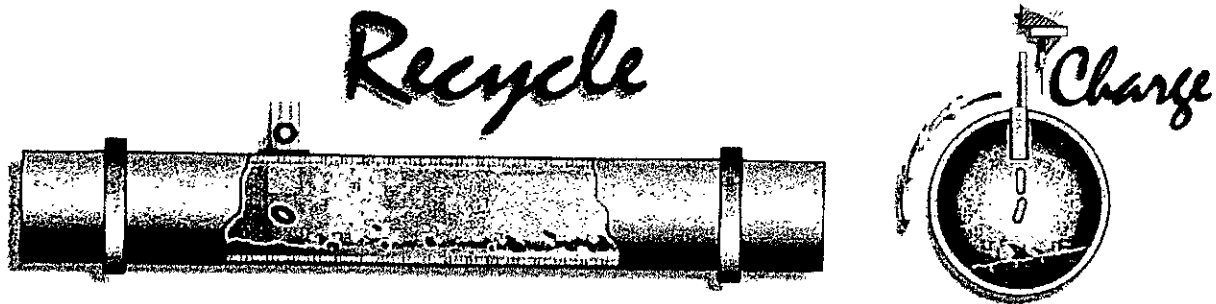
The Department contacted EPA regarding the test information collected in preparation of the proposed cement industry MACT Rule. The project officer could not cite a single example of any significant amounts of municipal solid wastes burned at cement kilns in the United States.<sup>35</sup>

The Department had previously relied extensively on statements by Rinker and its consultants regarding the ability to burn significant amounts of wastes in the proposed kiln. As a result of the lack of specific information regarding the amounts and the manner by which the various wastes will be burned, the Department conducted its own evaluation in determining whether reasonable assurance exists that such wastes can be properly handled by Rinker. Following is the updated assessment by the Department:

### Tire Burning

The Department found no case of a cement kiln actually combusting more than 30 percent tires as fuel. Several cement kilns were found in California that had burned or tested tires and tire derived fuel. The tests ranged between 18 and 25 percent of the heat input to pyroprocessing.<sup>36</sup> Information from an EPA document listed tire burning at kilns in Florida, California, Oregon, Texas, South Carolina, Washington, Ohio, and Virginia. No kiln was tested while operating at more than 25 percent tires and tire derived fuel. According to tests at the Calaveras facility in California, low NO<sub>x</sub> emissions (1.6 pounds per ton of clinker) were realized while firing tires.

The permit at the existing Rinker wet process cement facility allows use of up to 40 percent tires, but was tested only at 30 percent. The Department observed during a site visit that Rinker installed a system made by or similar to a "fork" system manufactured by Cadence.<sup>37</sup> The system looks like the following pictures from Cadence website:



The system observed by the Department engineer appeared to have an adequate delivery system (not shown above). So far no details have been provided regarding the system to be employed for the new kiln even though the kiln has reportedly been delivered to the site. To-date, Rinker has not acknowledged the manufacturer of the kiln or any details about the solid waste handling systems.

Notwithstanding the lack of information, the Department accepts that Rinker has sufficient experience burning tires to provide reasonable assurance that it will be properly done. The consultant described the mechanism adequately at an administrative hearing for the Florida Rock Cement Plant.<sup>38</sup>

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Rinker demonstrated that it can achieve 30 percent tire burning in a kiln that has only one main burn point. Quite a large portion of the thermal load can be transferred to tire burning (at a mid-kiln location) in that configuration. Because there are two main burn points in the precalciner design and no tires will be burned in the precalciner or main burner, it is questionable whether 40 percent heat input will be achieved via the kiln feed shelf.

The Department will revise the condition to limit tire burning to 30 percent until Rinker provides a better understanding as to how much fuel can actually be provided via the feed shelf. By introducing tires only at the feed shelf, the Department believes that the precalciner will act as an afterburner. If 40 percent tires are introduced into the feed shelf, it is possible that very little fuel will be burned in the calciner and it may not actually act as an afterburner.

A more typical and recent example of tire burning at a modern kiln is at the Holnam Dundee, Michigan Plant. The Michigan Department of Environmental Quality issued a permit allowing the company to replace up to 21% of its fuel with Tire Derived Fuel (TDF) at its Dundee Township cement plant. This approval was the final step in the state's extensive permit review and approval process, which was begun by Holnam in August 1995.<sup>39</sup> For reference Holnam burns tires at 8 of its plants.

### **Kiln Exit Temperature**

Given that the precalciner will act as an afterburner with a substantial thermal duty and that up to 30 percent tires will be introduced via the kiln shelf, the Department has reasonable assurance that combustion will be complete and that a temperature of 1750 °F will be attained in the area of the precalciner as presently required at the kiln outlet. The Department will not impose a new precalciner temperature requirement at 30 percent tires, but will reassess the need for a temperature limit if Rinker decides to burn more than 30 percent tires.

### **Used Oil Halogen Limit and Stack Gas Flow Measurement**

Despite the relative lack of details, the Department will carry over its previous proposed approval regarding the on-spec used oil halogen limit and the deletion of insecticide use on tires. The "F factor" requirement is replaced with the flow rate monitor as proposed by Rinker.

### **Diapers, Plastics, Paper**

Based on the responses from Rinker that "it is premature for Rinker to provide fuel stream makeup at this time" or the failure to describe any mechanisms for introducing the materials into the pyroprocessing system, the Department does not have reasonable assurance that it will be properly done when burning any more than a minimal amount. As mentioned, the Department found little if any information regarding combustion of these types of solid waste, let alone in the maximum amounts projected.

Until more details are provided, the Department will limit the amount to the de-minimus amount originally proposed by Subpart Eb at facilities located sites other than municipal waste combustors. This value is 10 megagrams per day.

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## **Offsite Oil Spill Materials**

The present permit does not allow burning of oil spill materials generated off-site. Until information is provided regarding how the material will be processed, the Department will maintain the present condition permitting only on-site generated oil spill materials.

## **Sewage Sludge**

The Department will remove authorization to burn sewage sludge at the convenience of Rinker. More fan capacity is required due to the need to evaporate and move large amounts of moisture in addition to the normal combustion and calcination gases. Additionally there was no information provided in the original application regarding how sludge would actually be received, processed and burned. There are very few kilns burning sewage sludge. If Rinker wishes to burn sewage sludge, it will be added back to the waste fuel slate when more details are provided.

## **Other Wastes**

Rinker provided no indication as to how other waste fuels/raw materials, such as aspirin will be received and processed. Additionally, Dade County DERM advised that no other wastes should be permitted. To the knowledge of the Department, Rinker does not have a waiver to the Dade County Ordinance prohibiting Resources Recovery and Recycling Facilities within Wellfield Protection Areas. The Department is expected by DERM to consider its ordinances when issuing state permits. As such, the Department is reluctant to expand the waste fuels slate without more details regarding what materials will actually be burned, how they will be received, transferred, processed, introduced into the kiln and safely burned.

## **XI. CONCLUSION**

Rinker is approved to burn a greater variety and amount of solid wastes than any cement kiln in the state. Exemption of cement kilns from Subpart Eb presents an opportunity to actually burn up to 160 tons per day of waste fuels (excluding on-spec and off-spec used oil and petroleum coke) without providing details as to how it will be accomplished. As discussed in Section II above, the decision by the Department during the original permitting to not require a case-by-case MACT determination meant that various restrictions and emissions limits did not apply to Rinker.

The Department requires details and reasonable assurances before permitting amounts of wastes to be burned that are well in excess of what has been burned by Rinker historically. In the meantime, Rinker is still allowed to burn a more varied slate and greater amounts of waste fuels than any other cement kiln in the State.

A public notice is required for this permitting action. When further details are provided on Rinker's precise plans regarding additional amounts and types of wastes, a public notice will be required to revise the permit. This can be done concurrently with the public notice associated with issuance or revision of the Title V permit.

The proposed revisions to the permit specific conditions are shown in the draft modification letter attached to this evaluation.



# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## References

- <sup>1</sup> Final Determination. Rinker Modernization Project Permit. Florida Department of Environmental Protection. September 11, 1997.
- <sup>2</sup> Proposed Rule. Environmental Protection Agency. Proposed Cement Industry MACT Rule. Federal Register..... March, 1998.
- <sup>3</sup> Document. Koogler and Associates. Application to Construct/Modify Air Pollution Source - Rinker Materials Corporation, Miami Cement Plant. December 3, 1996. Page 6.
- <sup>4</sup> Product Information. Fuller Company. Pyroprocessing and Standard Kiln Configurations.
- <sup>5</sup> Document. Koogler and Associates. Report in Support of a Construction Permit Application December 3, 1996.
- <sup>6</sup> Letter. Linero, A.A., FDEP to Jenkins, J.S., III, RMC. Application Incompleteness. December 31, 1996.
- <sup>7</sup> Letter. Cullen, S.C., K&A, to Linero, A.A., FDEP. Response to Request for Additional Information of December 31, 1996. March 24, 1997..
- <sup>8</sup> Letter. Linero, A.A., FDEP to Jenkins, J.S., III, RMC. Clarification on Proposed Solid Waste Materials. May 9, 1997.
- <sup>9</sup> Letter. Cullen, S.C., K&A, to Linero, A.A., FDEP. Additional Information per Department Request. May 19, 1997.
- <sup>10</sup> Report. Koogler and Associates. Summary of PM, SO<sub>2</sub>, THC, CO, NO<sub>x</sub>, Metals, and Benzene Emissions - Baseline and Coal/TDF Firing Conditions - Rinker Materials Corporation. January, 1993.
- <sup>11</sup> Document. Florida DEP. Best Available Control Technology Determination - Florida Rock Industries. December, 1996
- <sup>12</sup> Permit. Florida DEP. Air Construction Permit for Rinker Materials Corporation Miami Cement Plant. Permit No. 0250014-002-AC. September 11, 1997.
- <sup>13</sup> Proposed Rule. 40 CFR 60, Subpart Eb, Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994.
- <sup>14</sup> Ordinance. Section 24-12.1(11). Dade County Code. Prohibition of Resources Recovery and Management Facilities Within Wellfield Protection Areas.
- <sup>15</sup> Ordinance. Section 24-3(113). Dade County Code. Definition of Resource Recovery and Management facility.
- <sup>16</sup> Meeting. Rinker, FDEP, Steele Hector Davis. Case-by case MACT Applicability. August 30, 1997.
- <sup>17</sup> Letter. Koogler, J.B., P.E., K&A to Congden, W., Esq., FDEP. Motion for Extension of Time. September 26, 1997.
- <sup>18</sup> Letter. Koogler, J.B., P.E., K&A to Fancy, C.H., FDEP. Comments on Construction Permit. September 26, 1997.
- <sup>19</sup> Letter. Koogler, J.B., P.E., K&A to Congden, W., Esq., FDEP. Withdrawal of Extension of Time to Comment. October 23, 1997.
- <sup>20</sup> Letter. Linero, A.A., FDEP to Jenkins, J.S., III, RMC. Re: Request for Revision of Air Permit. November 3, 1997.
- <sup>21</sup> Document. Florida DEP. Technical Evaluation and Preliminary Determination. Rinker Draft Permit Modification. February 11, 1998.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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- 22 Telecon. Heron, T., and Linero, A.A., FDEP with Cullen, S., K&A. Matters Related to Rinker Request. Circa December 15, 1997.
- 23 Book. Sprung, S., Forschungsinstitut der Zementindustrie. Technical Problems in Pyroprocessing Cement Clinker: Cause and Solution. 129 pages.
- 24 Letter. Koogler, J.B., K&A to Linero, A.A., FDEP. Comments on Draft Permit Modification, March 3, 1998.
- 25 Telecon. Cullen, S., K&A and Linero, A.A., FDEP. Re: Public Notice Requirement and Applicability of Subpart Eb. April 7, 1998.
- 26 Faxed Letter. Linero, A.A., FDEP to Jenkins, J.S., III, RMC. Revisions of Permit Conditions. April 10, 1998.
- 27 Letter. Cullen, S.C., K&A, to Linero, A.A., FDEP. Written Comments Concerning Department's Proposed Action. April 10, 1998.
- 28 Telecon. Linero, A.A., FDEP and Vardamen, M., RMC. Need for Department Action on Permit Modification. Circa May 25, 1998.
- 29 Letters. Thomson, D.H., Esq., Berger Davis & Singerman. Waiver of 90-Day Time Period. June 3, August 12, and October 12, 1998.
- 30 Fax. Cullen, S., K&A to Wong, P., DERM and Vardamen, M., RMC. Permit language for Rinker's New Plant. September 21, 1998.
- 31 Fax. Wong, P., DERM to Linero, A.A., FDEP. Forward of and Comments on 9/21 Fax from K&A. October 26, 1998.
- 32 Meeting. FDEP, Rinker, and K&A. Solid Waste and Public Notice Issues related to Revision of Construction Permit. October 27, 1998.
- 33 Letter. Koogler, J.B., K&A to Linero, A.A., FDEP. Response to Department's May 5 Request. October 26, 1998.
- 34 Telecon. Stephenson, W., EPA OAQPS with Linero, A.A., Kahn, J., and Hewett, M. of FDEP. Exclusion of Cement Kilns from Subpart Eb. October 27, 1998.
- 35 Telecon. Wood J, EPA OAQPS with Linero, A.A., Kahn, J., and Heron, T. of FDEP. Test Data in Support of Cement Industry MACT. October 27, 1998.
- 36 Document. California Integrated Waste Management Board. Tires as a Fuel Supplement: Feasibility Study - Report to the Legislature. January 1992. 98 pages.
- 37 Site Visit. Linero, A.A., FDEP and Kunath, M.E., DERM. Rinker Wet Process Plant Visit. March, 1994.
- 38 Hearing. Haile Community Association Versus Florida Rock Industries. Gainesville Florida. March 1996.
- 39 Press Release. Holnam, Inc. "Holnam Dundee Plant Receives State Approval to Use Tires as Fuel." July 2, 1998.

January XX, 1999

CERTIFIED MAIL -RETURN RECEIPT REQUESTED

Mr. James S. Jenkins, III  
Vice President of Cement Operations  
Rinker Materials Corporation  
1200 NW 137th Avenue  
Miami, Florida 33182

Re: Cement Plant Modernization Project  
File No. 0250014-006-AC - Permit Revisions

Dear Mr. Jenkins:

The Department has reviewed your requests to revise certain specific conditions in the air construction permit for the Cement Plant Modernization Project as described in comments received by the Department between September, 1997 and October, 1998. The details of the Department's analysis were discussed in the Technical Evaluation and Preliminary determination distributed on November 30, 1998 with the Intent to Issue Air Construction Permit Modification. The permit is hereby modified as follows:

**SPECIFIC CONDITION B.5 - FUEL COMBUSTION**

**B.5 Fuel Combustion**

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: Bituminous coal, natural gas, petroleum coke, propane, No. 2 fuel oil, residual fuel oil, on-specification and off-specification used oil and non hazardous solid waste materials as specified below. The receiving, storage, and handling of all allowable fuels shall be in accordance with all applicable federal, state and local regulations.

~~(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.~~

**COAL AND PETROLEUM COKE**

(2)(1) Unchanged

**NON HAZARDOUS SOLID WASTE: Municipal Solid Waste and Solid Waste Materials**

(2) Subject to the limitations contained in this permit, the following are the authorized solid waste materials allowed to be burned at this Kiln:

- ~~b. Whole tires and tire derived fuel (up to 40% heat input). This non-hazardous solid waste material shall may be used as a supplemental fuel, but not as a start-up fuel.~~
- e.a. ~~Combustion of non-hazardous solid waste, oil filters, Booms and rags from non-hazardous petroleum spill clean up and oil filters generated on site. This non-hazardous solid waste materials shall may be used as supplemental fuel, but not as a start-up fuel. [Rule 62-4.070(3), F.A.C.]~~
- d.b. ~~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 (30% heat input) (10 megagrams/day [11 tons/day]) sewage sludge from publicly owned treatment works (POTW). This non-hazardous municipal solid waste material shall not be may be used as supplemental fuel but not as a start-up fuel. [Rule 62-4.070(3), F.A.C.]~~
- e.c. The combined percent heat input from these non-hazardous solid wastes (described above in (2) a. and (2) b.), ~~and tire-derived fuel, and tires (described in (3) below) solid waste shall not exceed 40 percent of the total heat input (kiln and precalciner heat input) from all fuels on a 24-hour basis. These fuels may be fed continuously at the kiln inlet at the base of the precalciner at a rate not to exceed 174.8 MMBtu/hr. [Rule 62-4.070(3), F.A.C.]~~

NON HAZARDOUS SOLID WASTE: Whole Tires and Tire-derived Fuel

- (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~~ 131.1 MMBtu/hr (~~40~~ 30% of total kiln and precalciner ~~fuel heat input~~) on a 24-hour basis. Tires and tire-derived fuel may be used as a supplemental fuel, but not as a start-up fuel.
- (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.~~

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 279.11 (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	<del>140</del> <u>100</u> degrees F minimum
Polychlorinated Byphenyls (PCBs)	Less than 2 ppm

Rinker has the option of having a total halogen concentration in the on-specification used oil of up to 4,000 ppm. The 4000 ppm limit is authorized by 40 CFR 279.10 (b) (1)(ii) if Rinker can demonstrate that the used oil does not contain halogens in excess of 1000 ppm as a result of the mixture of a hazardous waste. In the event that Rinker accepts such oil, Rinker shall demonstrate that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of 40 CFR chapter I).

#### **SPECIFIC CONDITION B.11**

The CEMS shall calculate and record emission rates in units of pounds of NO<sub>x</sub> and SO<sub>2</sub> 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<sub>x</sub> and SO<sub>2</sub> 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 provided that emissions are below the limits in Table 1-2. Emissions during start up, shutdown or malfunction which meet the requirements of 62-210.700 F.A.C shall not be included in the daily averages but shall be reported as excess emissions.

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.~~

The calculation of mass emission rates based on CEM data will incorporate data generated by a continuous stack gas flow monitor (CSGFM). This CSGFM shall be installed and certified, before the initial performance test, and calibrated, maintained and operated in compliance with 40 CFR 60, Appendix B.

Performance Specification 6. Annual relative accuracy (RA) tests shall be conducted on the stack gas flow monitoring system.

### **NEW SPECIFIC CONDITION B.23**

In order to document compliance with the **Non Hazardous Solid Wastes** (municipal solid waste and solid waste) conditions in Specific Condition No. B.5(2) a, b, and c.

- (1) Records of the amount of Municipal Solid Waste as described in Specific Condition B.5(2) b. shall be kept on a daily basis (ton/day). The amount of MSW burned at this kiln shall not exceed 10 megagrams/day (11 tons/day). [Rule 62-4.070(3), F.A.C.]
- (2) Records of the amount of Solid Waste specified in Specific Condition B.5(2)a. shall be kept on a daily basis. [Rule 62-4.070(3), F.A.C.]

### **SPECIFIC CONDITION B.30**

The Permittee shall not place waste tires on the ground. Waste tires shall be received in closed vans and stored in the vans until fed ~~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.~~

### **SPECIFIC CONDITION B.36**

The Permittee shall manage used oil generated or received at the facility and used oil filters generated at the facility in compliance with ~~Rule 62-710~~ Chapter 62-710, F.A.C. and 40 CFR 279.42, 10

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by the filing of a Notice of Appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, 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 (thirty) days after this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director  
Division of Air Resources  
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, Technical Evaluation, and the DRAFT permit modification) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on \_\_\_\_\_ to the person(s) listed:

- James S. Jenkins, III, RMC \*
- Gregg Worley, EPA
- John Bunyak, NPS
- John Koogler, P.E.
- H. Patrick Wong, DERM
- Jose Gonzalez DERM
- Isidore Goldman, SED

Clerk Stamp

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

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)

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**SENDER:**

- Complete items 1, and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
*James Jenkins III*  
*V.P. Cement Operations*  
*Rinker Materials Corp.*  
*1200 NW 137th Ave.*  
*Miami, FL 33182*

4a. Article Number  
*Z 333 612 563*

4b. Service Type  
 Registered  Certified  
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 Return Receipt for Merchandise  COD

7. Date of Delivery  
*12/2/98*

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*Alan Barentin*

8. Addressee's Address (Only if requested and fee is paid)

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**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

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Street & Number <i>Rinker</i>	
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Postage	\$
Certified Fee	
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Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>11-30-98</i>

PS Form 3800, April 1995