Fax

FOWLER WHITE
ATTORNEYS AT LAW

Writer's Direct Line (850) 681-1840
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Please deliver the following pages immediately to:

Name: Al Rinaro 922-6979
John Reynolds 922-6979
Mike Vardeman 305/229-8015
~~305~~/561/820-8388
Scott Benyon
Steve Cullen + John Koogler 352/377-7158

Total Number of Pages 3 *(including this cover page)*

From: JAKE VARN

Date: 4/30/01

Message:

FOWLER WHITE
ATTORNEYS AT LAW
ESTABLISHED 1945

April 30, 2001

Mr. A. A. Linero, P.A.
Administrator
New Source Review Section
Florida Department of Environmental Protection
Twin Towers Office Building, MS 5505
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: DEP File No. 0250014-002-AC
CSR Rinker Materials Corporation
Miami Cement Plant
Modernization Project Permit Extension

Dear Mr. Linero:

We represent CSR Rinker Materials Corporation ("CSR"). On November 30, 2000, January 12, 2001, February 28, 2001, and March 26, 2001, we filed prior requests for extensions of time. Our last request expires on April 30, 2001. We have still been unable to adequately review the proposed draft permit amendment and request another 30 days to complete our review.

In light of the significance of this amendment, we respectfully request that the Department extend the time for taking action on this permit amendment until May 30, 2001.

We trust that you will deem this letter to be an adequate waiver. Should you have any questions or care to discuss this matter, please call.

Sincerely,

Jacob D. Varn

cc: John Reynolds
Mike Vardaman
Scott Benyon
Steve Cullen
John Koogler

MIAMI-DADE COUNTY, FLORIDA

MIAMI-DADE

DERM

ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
(305) 372-6925

April 19, 2001

Mr. Segundo J. Fernandez
Oertel, Hoffman, Fernandez & Cole, P.A.
301 South Bronough Street, Suite 500
Tallahassee, Fl 32301

Subject: Amendment of CSR Rinker Materials Corporation's Permit No. 0250014-002-AC

Dear Mr. Fernandez:

This office is in receipt of your letter dated April 12, 2001, where you stated your position regarding the deletion of the PSD threshold for Beryllium from the Florida Administrative Code, and as a result from the CSR Rinker's referenced construction permit.

For your information, the State of Florida Department of Environmental Protection (FDEP), Tallahassee, is currently in the process of revising the referenced Construction Permit. Please be advised that you need to submit your request to Mr. Alvaro Linero of the FDEP main office in Tallahassee, to address this issue, and any other issues directly related to the amendment of said permit.

If you have any questions regarding this letter, please call me at (305) 372-6925.

Sincerely,

Frank Echanique

Frank Echanique, Supervisor
Air Facilities Section

cc: Alvaro Linero, FDEP

METROPOLITAN DADE COUNTY, FLORIDA

METRODADE

DERM

Department of Environmental Resources Management
33 S.W. 2nd Avenue
Miami, FL. 33130-1540

FAX TRANSMITTAL

SEND TO:

Name: TERESA HERON

Company/Department: DEP

Phone Number:

Fax Number: (850) 922-6979

Message: As per our conversation
Please give me your comments.
Thank you Very Much.

FROM:

Name: FRANK ECHANIQUE

Division/Section:

Phone Number:

Fax Number: (305) 372-6954

Date: 4/16/01

Number of Pages (including this one): 8

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April 12, 2001

Frank Echanique, Project Manager
Miami-Dade County
Department of Environmental Resource Management
Air Quality Management Division
33 Southwest 2d Avenue
Miami, Florida 33130

Re: CSR Rinker Materials Corporation
Miami, Florida
Permit No. 0250014-002-AC

Dear Frank:

Thank you very much for meeting with me to discuss the status of regulatory authority to include a beryllium emission limit in the above referenced permit.

As we discussed, we represent CSR Rinker Materials Corporation with respect to its Miami, Florida portland cement plant. Through this letter we are summarizing our position that Permit No. 0250014-002-AC should be amended to delete the emission limitation for beryllium, as beryllium is no longer a regulated pollutant subjecting stationary sources to PSD Preconstruction Review.

As we discussed, on December 21, 2000, Koogler & Associates, Inc. conducted emission measurements for beryllium to demonstrate initial compliance with Permit No. 0250014-002-AC. During the test period, the beryllium emission rates averaged 0.000135 pounds per hour. Permit No. 0250014-002-AC limits the beryllium emission rate to 0.000090 pounds per hour. This limit was included in the permit at the time that there was a beryllium standard in the rules.

Rule 62-212.400, Florida Administrative Code, "Prevention of Significant Deterioration" or "PSD," includes Table 212.400-2 "REGULATED AIR POLLUTANTS -- SIGNIFICANT EMISSION RATES," which provides the threshold emission rates in tons per year of pollutants which trigger a PSD review in a stationary source permit application. In the current rule, beryllium is not a PSD pollutant listed in Table 212.400-2, and is therefore not regulated by the State of Florida. Beryllium is also not listed in the de minimus ambient impacts table, Table 212.400-3.

In October of 1997, the State Department of Environmental Protection modified Rule 62-212.400, F.A.C., to eliminate beryllium from the PSD preconstruction review list in Table 212.400-2. Prior to October of 1997, the significant emission rate for beryllium was 0.8 lbs. per year. Please see attached a copy of the *Florida Administrative Weekly*, dated October 31, 1997, Volume 23, No. 44, pages 5914, which modified Table 62-212.400 to eliminate beryllium as a regulated air pollutant. FDEP again amended Table 212.400-2 in December of 1997, which retained the elimination of the beryllium standard. See attached, December 19, 1997, *Florida Administrative Weekly*, Vol. 23, No. 51.

The emission limit for beryllium in Rinker's permit was established to keep the facility from becoming PSD for beryllium, by keeping emissions below the threshold in the then-existing rules. With that rule threshold now repealed, there is no technical or legal basis for continuing the emission limit.

The 1997 FDEP rule amendment was made to reflect changes in EPA rule amendments and guidance relating to pollutants subject to PSD review. The 1990 Amendments to the Clean Air Act completely overhauled the regulatory approach used for air toxics. Title III of the 1990 Amendments shifted from a pollutant-by-pollutant approach to regulation of air toxics to a category of sources approach using technology-based standards.

Based on the foregoing, we agreed that Permit No. 0250014-002-AC should be amended to delete the emission limitation for beryllium for its portland cement plant in Miami, Florida. I also spoke with Frank Delgado after we met, and he concurred on the appropriateness of deleting the beryllium emission limit.

Koogler and Associates is the engineer of record for these permits, and he will submit a formal request for modification of the Rinker permit, as outlined in this letter.

Thank you for your attention and consideration. Please let me know if you have any further questions.

Sincerely,

Segundo J. Fernandez

Attachments

c: John Koogler, Ph.D, P.E.
Scott Benyon
Michael Vardamann
Frank Delgado - DERM

F:\Document\TPA\LTR\Rinker Be letter.wpd

(a) Construction Permits. Any construction permit issued pursuant to this rule shall contain all of the conditions and provisions necessary to insure that the construction and operation of the facility or modification shall be in accordance with the requirements of this rule.

(b) Operation Permits. Any operation permit issued for a facility or modification shall include all operating conditions and provisions required under subsection (6)(a), above, and set forth in the original or amended construction permit. Any operation permit issued may include additional provisions, authorized by rule, which are not in conflict with any of the conditions or provisions required by the construction permit.

(7) Future Statutory and Regulatory Changes. Within 60 days following any substantive changes in the PSD provisions of the Clean Air Act (including Title I, Part C) or EPA regulations contained in 40 CFR 51.24, the Department shall publish a notice in the Florida Administrative Weekly identifying the changes and any new substantive differences created thereby in the state regulations. At the next regularly scheduled meeting of the Environmental Regulation Commission, not sooner than 14 days after the notice required above, the Department shall notify the Commission of the changes.

(8) Effective Date. The provisions of Rule 62-212.400, F.A.C., shall become effective on November 1, 1981.

TABLE 212.400-1
MAJOR FACILITY CATEGORIES
(LIST OF 28)

Fossil fuel fired steam electric plants of more than 250 million Btu/hr heat input
Coal cleaning plants (with thermal dryers)
Kraft pulp mills
Portland cement plants
Primary zinc smelters
Iron and steel mill plants
Primary aluminum ore reduction plants
Primary copper smelters
Municipal incinerators capable of charging more than 250 tons of refuse per day
Hydrofluoric acid plants
Sulfuric acid plants
Nitric acid plants
Petroleum refineries
Lime plants
Phosphate rock processing plants
Coke oven batteries
Sulfur recovery plants
Carbon black plants (furnace process)
Primary lead smelters
Fuel conversion plants
Sintering plants
Secondary metal production plants
Chemical process plants
Fossil fuel boilers (or combinations thereof) totaling more than 250 million Btu/hr heat input
Petroleum storage and transfer units with total storage capacity exceeding 300,000 barrels
Taconite ore processing plants
Glass fiber processing plants
Charcoal production plants

TABLE 212.400-2
REGULATED AIR POLLUTANTS —
SIGNIFICANT EMISSION RATES

Pollutant	Significant Emission Rate (Tons Per Year)
Carbon monoxide	100
Nitrogen oxides	40
Sulfur dioxide	40
Ozone	40 VOC
Particulate matter	25
PM_{10}	15
Total reduced sulfur (including H_2S)	10
Reduced sulfur compounds (including H_2S)	10
Sulfuric acid mist	7
Fluorides	3
Vinyl chloride	1
	(Pounds Per Year)
Lead	1200
Mercury	200
Asbestos	14
Beryllium	0.8

TABLE 212.400-3
DE MINIMUS AMBIENT IMPACTS

Pollutant	Concentration (Micrograms Per Cubic Meter)	Averaging Period
Nitrogen dioxide	14	Annual
Lead	0.1	Quarterly
Vinyl chloride	15	24-hour
Sulfur dioxide	13	24-hour
PM_{10}	10	24-hour
Fluorides	0.25	24-hour
Mercury	0.25	24-hour
Beryllium	0.001	24-hour
Carbon monoxide	575	8-hour
Hydrogen sulfide	0.2	1-hour
Ozone	No de minimis air quality level is provided for ozone. However, any net increase of 100 tons per year or more of volatile organic compounds subject to preconstruction review would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.	

Specific Authority 403.061 FS. Law Implemented 403.021, 403.031, 403.061, 403.087 FS. History—Formerly 17-2.500, Amended 2-2-93, Formerly 17-212.400, Amended 11-23-94, 1-1-96.

ATTACHMENT 1

DATE NOTICE OF PROPOSED RULE DEVELOPMENT PUBLISHED IN THE FAW: August 1, 1997

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DOCKET NO.: 97-28R

RULE TITLE: RULE NO.:
Prevention of Significant Deterioration (PSD) 62-212.400

PURPOSE AND EFFECT: The rule would be modified to reflect recent EPA rule amendments and guidance relating to pollutants subject to PSD review.

SUMMARY: The proposed amendments will bring the state's PSD preconstruction review rule into conformity with recently amended EPA rules and EPA guidance.

SUMMARY OF STATEMENT OF ESTIMATED REGULATORY COSTS: None.

Any person who wishes to provide a proposal for a lower cost regulatory alternative must do so within 21 days of this notice.

SPECIFIC AUTHORITY: 403.061 FS.

LAW IMPLEMENTED: 403.021, 403.031, 403.061, 403.087 FS.

A hearing will be held before the Environmental Regulation Commission at the time, date, and place shown below:

TIME AND DATE: 9:00 a.m., December 4, 1997

PLACE: Department of Environmental Protection, Room 609, Twin Towers, 2600 Blair Stone Road, Tallahassee, Florida

If an accommodation is needed for a disability in order to participate in this activity, please notify the Personnel Services Specialist at (850)488-2996/1(800)955-8771 (TDD), at least 48 hours prior to the event.

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Larry George, Department of Environmental Protection, Division of Air Resources Management, Twin Towers Office Building, 2600 Blair Stone Road, Mail Station 5500, Tallahassee, Florida 32399-2400. Phone number (850)488-0114

THE FULL TEXT OF THE PROPOSED RULE IS:

62-212.400 Prevention of Significant Deterioration (PSD).

(2) Applicability. This subsection establishes the criteria for determining whether or not a proposed new facility or modification to a facility is subject to the preconstruction review requirements of this rule, either in whole or in part. The preconstruction review requirements of this rule include the applicable provisions of: Rules 62-212.400(4), F.A.C., General Provisions; 62-212.400(5), F.A.C., Preconstruction Review Requirements; 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and 62-212.400(7)~~(6)~~, F.A.C., Construction/Operation Permit Requirements; all as modified by the applicable provisions of Rule 62-212.400(3), F.A.C., Exemptions and Exclusions. A proposed new facility or modification that is not subject to the preconstruction review requirements of this rule, either in whole or in part, may be subject to review requirements under other rules of this chapter.

TABLE 212.400-2
REGULATED AIR POLLUTANTS –
SIGNIFICANT EMISSION RATES

Pollutant	Significant Emission Rate (Tons Per Year)
Carbon monoxide	100
Nitrogen oxides	40
Sulfur dioxide	40
Ozone	40 VOC
Particulate matter	25
PM_{10}	15
Total reduced sulfur (including H_2S)	10
Reduced sulfur compounds (including H_2S)	10
Sulfuric acid mist	7
Fluorides	3
~~Vinyl chloride~~	~~1~~
	(Pounds Per Year)
Lead	1200
~~Mercury~~	~~200~~
~~Asbestos~~	~~14~~
~~Beryllium~~	~~0.8~~
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	(Megagrams per Year) 3.2×10^{-6} (Tons per Year) 3.5×10^{-6}
Municipal waste combustor metals (measured as particulate matter)	(Megagrams per Year) 14 (Tons per Year) 15
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	(Megagrams per Year) 36 (Tons per Year) 40
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	(Megagrams per Year) 45 (Tons per Year) 50

ATTACHMENT 2

61G5-18.001 Who May Apply.

(1) Individuals desiring to be licensed as a cosmetologist shall meet all required qualifications as specified in §477.019, F.S.

(2) If an applicant for licensure by examination meets all required qualifications except the required minimum hours of training, he or she shall be entitled to take the licensure examination to practice cosmetology if the applicant has received a minimum of 1,000 hours of training established by the Board, and has been certified by the Director of the school or program in which he or she is currently enrolled to have achieved the minimum competency standards of performance as prescribed in Chapter 61G5-22, F.A.C. for the hours completed.

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Ed Broyles, Executive Director, Board of Cosmetology, Northwood Centre, 1940 N. Monroe Street, Tallahassee, Florida 32399-0750

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

Board of Funeral Directors and Embalmers

RULE NO.:	RULE TITLE:
61G8-23.004	Direct Disposal Establishments

NOTICE OF ADDITIONAL PUBLIC HEARING

The Board of Funeral Directors and Embalmers hereby gives notice of an additional public hearing on the above-referenced rule to be held on February 16, 1998 at 1:00 p.m., at Radisson Riverwalk Hotel, 1515 Prudential Drive, Jacksonville, Florida 32207. The rule was originally published in Vol. 23, No. 40, of the October 3, 1997, Florida Administrative Weekly.

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Sue Foster, Executive Director, Board of Funeral Directors and Embalmers, Northwood Centre, 1940 N. Monroe Street, Tallahassee, Florida 32399-0750

Any person requiring a special accommodation at this hearing because of a disability or physical impairment should contact the Board's Executive Director at least five calendar days prior to the hearing. If you are hearing or speech impaired, please contact the Board office using the Florida Dual Party Relay System which can be reached at 1(800)955-8770 (Voice) and 1(800)955-8771 (TDD).

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

Board of Funeral Directors and Embalmers

RULE NO.:	RULE TITLE:
61G8-32.002	Approved Courses

NOTICE OF WITHDRAWAL

NOTICE IS HEREBY GIVEN that the above rule, as noticed in Vol. 23, No. 33, of the Florida Administrative Weekly on August 15, 1997, has been withdrawn.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DOCKET NO.: 97-27R

RULE CHAPTER NO.:	RULE CHAPTER TITLE:
62-210	Stationary Sources – General Requirements
RULE NOS.:	**RULE TITLES:**
62-210.200	Definitions
62-210.300	Permits Required

NOTICE OF CHANGE

The Department has made a change to the proposed rule which appeared in the Florida Administrative Weekly, Vol. 23, No. 44, dated October 31, 1997, page 5910, so that the following sections will read as set forth below:

62-210.200 Definitions.

(244) "Regulatory Requirement" – Either (a) or (b), below, as applied to a facility that is not a Title V source or to any emissions unit within such facility.

(a) "Facility-Level Regulatory Requirement" – A requirement that may be applicable to any emissions unit or pollutant-emitting activity within a facility but which is not considered a unit-specific regulatory requirement, such as: ~~Facility-level regulatory requirements include the following:~~

5. Rule 62-296.320(4)(b), F.A.C., General Visible Emissions Standard, except Rule 62-296.320(4)(b)2., F.A.C.; ~~and~~

6. Rule 62-296.320(4)(c), F.A.C., Unconfined Emissions of Particulate Matter; and

7. Rule 62-4.160, F.A.C., except Rule 62-4.160(13), F.A.C.

Specific Authority 403.061 FS. Law Implemented 403.021, 403.031, 403.061, 403.087, F.S. History–Formerly 17-2.100; Amended 2-9-93, 11-28-93, Formerly 17-210.200, Amended 11-23-94, 4-18-95, 1-2-96, 3-13-96, 3-21-96, 8-15-96, 10-7-96, 10-15-96, _____.

62-210.300 Permits Required.

(3)(b)1.e. In the case of a proposed new pollutant-emitting activity, such activity would not constitute a modification of any existing non-exempt emissions unit.

Specific Authority: 403.061 FS. Law Implemented: 403.021, 403.031, 403.061, 403.087 FS. History–Formerly 17-2.210; Amended 11-28-93; Formerly 17-210.300; Amended 11-23-94, 4-2-95, 4-18-95, 10-16-95, 1-2-96, 3-13-96, 3-21-96, 5-13-96, 8-15-96, 10-7-96, _____.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DOCKET NO.: 97-28R

RULE NO.:	RULE TITLE:
62-212.400	Prevention of Significant Deterioration

NOTICE OF CHANGE

The Department has made a change to the proposed rule which appeared in the Florida Administrative Weekly, Vol. 23, No. 44, dated October 31, 1997, page 5914, so that the following sections will read as set forth below:

ATTACHMENT 3

62-212.400 Prevention of Significant Deterioration (PSD).

TABLE 212.400-2
REGULATED AIR POLLUTANTS –
SIGNIFICANT EMISSION RATES

Pollutant	Significant Emission Rate (Tons Per Year)
Carbon monoxide	100
Nitrogen oxides	40
Sulfur dioxide	40
Ozone	40 VOC
Particulate matter	25
PM_{10}	15
Total reduced sulfur (including H_2S)	10
Reduced sulfur compounds (including H_2S)	10
Sulfuric acid mist	7
Fluorides	3
	(Pounds Per Year)
Lead	1200
Mercury	200
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	(Megagrams per Year) 3.2×10^{-6}
	(Tons per Year) 3.5×10^{-6}
Municipal waste combustor metals (measured as particulate matter)	(Megagrams per Year) 14
	(Tons per Year) 15
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	(Megagrams per Year) 36
	(Tons per Year) 40
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	(Megagrams per Year) 45
	(Tons per Year) 50

TABLE 212.400-3
DE MINIMIS AMBIENT IMPACTS

Pollutant	Concentration (Micrograms Per Cubic Meter)	Averaging Period
Nitrogen dioxide	14	Annual
Lead	0.1	Quarterly
Sulfur dioxide	13	24-hour
PM_{10}	10	24-hour
Fluorides	0.25	24-hour
Mercury	0.25	24-hour
Carbon monoxide	575	8-hour
Hydrogen sulfide	0.2	1-hour
Ozone	No de minimis air quality level is provided for ozone. However, any net increase of 100 tons per year or more of volatile organic compounds subject to preconstruction review would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.	

Specific Authority 403.061 FS. Law Implemented 403.021, 403.031, 403.061, 403.087 FS. History–Formerly 17-2.500, Amended 2-2-93, Formerly 17-212.400, Amended 11-23-94, 1-1-96,_____.

DEPARTMENT OF HEALTH

Board of Clinical Social Work, Marriage and Family Therapy, and Mental Health Counselors

RULE NOS.:	RULE TITLES:
64B4-4.0021	Application and Examination Fee for Certification of Education and Subsequent Examination
64B4-4.015	Registered Intern Registration Fee and Subsequent Examination Fee

NOTICE OF ADDITIONAL PUBLIC HEARING

The Board of Clinical Social Work, Marriage and Family Therapy, and Mental Health Counselors hereby gives notice of an additional public hearing on the above-referenced rules to be held on January 31, 1998 at 9:00 a.m., at The DoubleTree Guest Suites/Busch Gardens, 11310 North 30th Street, Tampa,

TEST 12/21/00

METROPOLITAN DADE COUNTY, FLORIDA

METRODADE

DERM

Department of Environmental Resources Management
33 S.W. 2nd Avenue
Miami, FL. 33130-1540

FAX TRANSMITTAL

SEND TO:

Name: AL LINERO

Company/Department:

Phone Number:

Fax Number:

Message:

FROM:

Name: Ray Gordon

Division/Section: DERM/ AIR

Phone Number: (305) 372-6925

Fax Number: (305) 372-6954

Date: 5/21/01

Number of Pages (including this one):

850 922-6979

1.0 INTRODUCTION

CSR Rinker Materials Corporation owns and operates a preheater/precalciner Portland cement plant at 1200 NW 137th Avenue, Miami, Dade County, Florida. On December 21, 2000, Koogler & Associates Environmental Services of Gainesville, Florida, conducted emission measurements for beryllium, lead and mercury on the cement kiln in accordance with EPA Method 29 (40 CFR 60, Appendix A). The purpose of the testing was to demonstrate initial compliance with the emission limiting standards set forth in Permit No. 0250014-002-AC.

Prior to the test date, the Metropolitan Dade County Environmental Resources Management in Miami, Florida, was notified of the scheduled initial air emission performance tests.

The primary heat input to the cement kiln is pulverized coal. Permit 0250014-002-AC also allows Rinker to use various virgin fuel oils and natural gas as a kiln fuel. Rinker can also burn on-site generated non-hazardous waste oil. Additionally, tire derived fuel (TDF) can be used to provide up to 40 percent of the heat input to the kiln. During the test period, coal was being fired to the cement kiln at an average rate of 11.6 tons per hour, providing 100 percent of the total heat input.

During testing, the plant was operating normally at a preheater feed rate of 185.4 tons per hour.

Permit 0250014-002-AC requires emission measurements for beryllium, lead and mercury. The measured and permitted emission rates are as follows:

Metal	Emission Rates (lb/hr)	
	Measured	Permitted
Beryllium	0.000135	0.000090
Mercury	0.000516	0.003300
Lead	0.002300	0.010000

2.0 LOCATION OF SAMPLING PORTS

The location of the sampling ports for emission testing on the cement kiln are shown in Figure 1. Stack gas flow rate measurements and sample collection for metals (Method 29) emission measurements were made through four sampling ports located 90 degrees to one another in the 136.5-inch diameter stack. The ports are located 203.5 feet (18.5 diameters) above the point where the stack gases are introduced to the stack and 101.7 (9.3 feet) below the top of the stack. A total of 12 sampling points were used for the velocity and sampling traverses. The sampling points were located in accordance with criteria established by EPA test Method 1 (40 CFR 60, Appendix A).

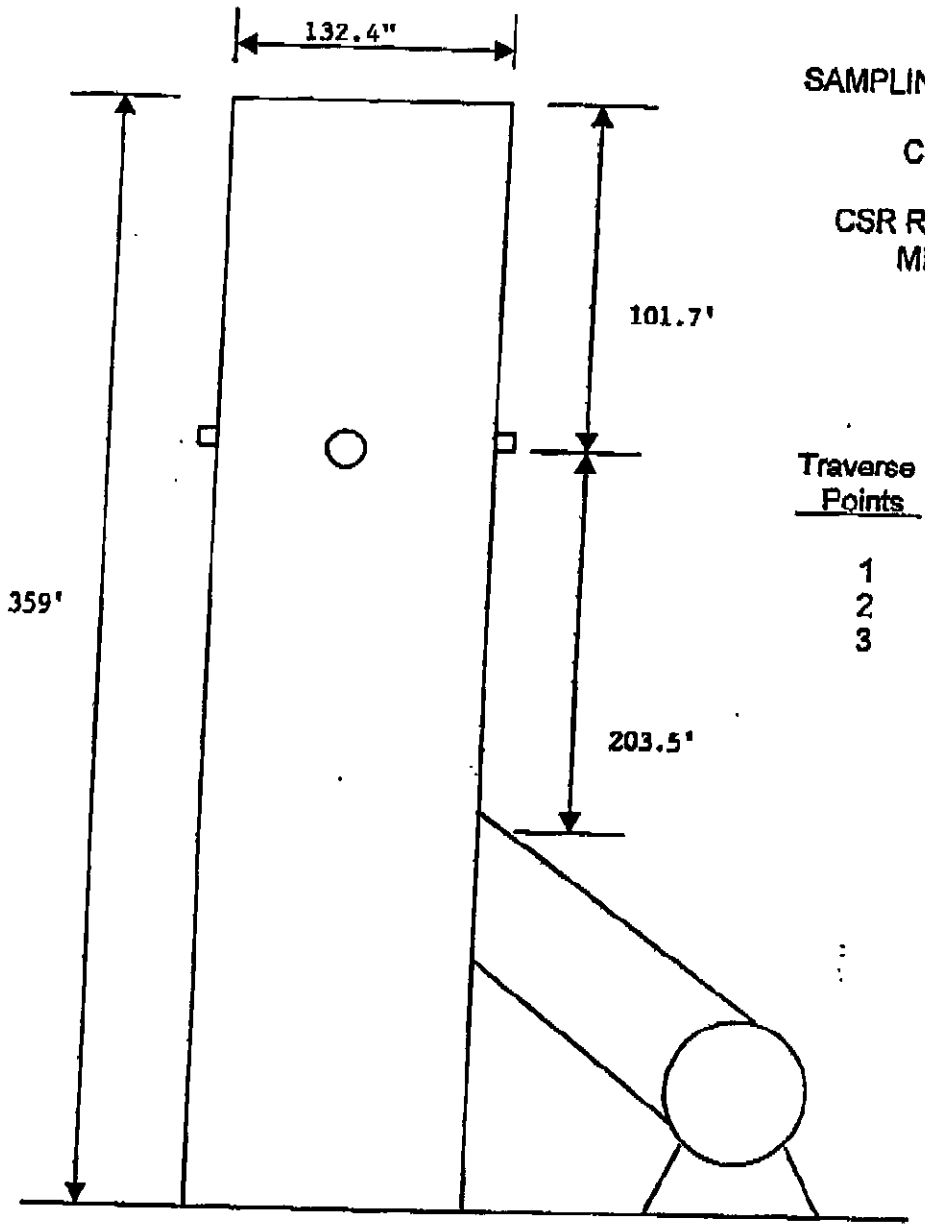

FIGURE 1

SAMPLING POINT LOCATIONS

CEMENT PLANT

CSR RINKER MATERIALS
MIAMI, FLORIDA

Traverse Points	Distance from Inside Stack Wall
1	6.01
2	19.9
3	40.4

3.0 TEST METHODS

Metals emission measurements were made using EPA Method 29 as adopted by FDEP in Rule 62-297.401, F.A.C. The sampling point locations for the EPA Method 29 tests were established in accordance with EPA Method 1. A schematic diagram of the sampling train used for the emission measurement is shown in 40 CFR 60, Appendix A, Method 29. Stack gas velocity measurements and stack gas moisture measurements were made in conjunction with the EPA Method 29 tests in accordance with EPA Methods 2 and 4.

The EPA Method 29 test runs are one hour in duration. This resulted in sample volumes ranging from 52 to 56 dscf. To determine sample weights when a sample mass for a component was below the level of detection, one half of the level of detection was used as the quantifiable amount of sample present. All sample weights were then blank corrected taking into consideration the sample volume and the blank volume.

All laboratory data and a summarization of sample weights are presented in the Appendix.

All EPA test methods are described in 40 CFR 60, Appendix A and have been adopted by reference by FDEP by Rule 62-297.401, F.A.C.

TABLE 1

SUMMARY OF SOURCE EMISSION TEST DATA

RINKER / MIAMI, FL.
CEMENT PLANT
DEC. 21, 2000

Run No.	Process Weight Rate (Tons/hr)	Stack Gas Flow Rate (SCFMD)	Stack Gas Temperature (F)	Stack Gas Moisture (%)
1		161,892	225	13.7
2		175,190	234	13.0
3		169,803	218	13.7
Average	0.0	168,962	226	13.5

TABLE 2

METALS EMISSION RATE CALCULATIONS

Company : RINKER / MIAMI, FL.

Source : CEMENT PLANT

Date : DEC. 21, 2000

Run No.	Stack Gas Flow (dscfm)	Sample Volume (dscfm)	Beryllium (ug){1}	(lb/hr){2}	Mercury (ug){1}	(lb/hr){2}	Lead (ug){1}	(lb/hr){2}
1	181892	52.998	0.324	1.32E-04	0.878	3.59E-04	4.566	1.87E-03
2	175190	54.272	0.429	1.75E-04	1.417	5.79E-04	9.215	3.77E-03
3	169803	56.516	0.237	9.69E-05	1.495	6.11E-04	3.069	1.25E-03
Average	168962	54.395	0.330	1.35E-04	1.263	5.16E-04	5.617	2.30E-03

{1} Total sample weight blank corrected

{2} Emission rate (lb/hr) =
Flow (dscfm) X 60 (min./hr) X Metal (ug)
X 1/Sample Vol. (dscf)
X 1 / (453.6 X 10^6) (ug/lb)

GENERAL DATA

DATA FILE NAME: MUL_MET

Company	: RINKER / MIAMI, FL.				**********
Source/Unit	: CEMENT PLANT				11:48 AM
Date	: DEC. 21, 2000		Cp	: 0.840	
Stack dia.	: 132.44 inch	OR :	Duct Length	: 0.00	inch
Oxygen Corr.	: 0.0 percent		Duct Width	: 0.00	inch
CO2 Corr.	: 0.0 percent		Std. Temp.	: 68	F

FUEL ANALYSIS DATA, (By F Factor or Fuel Use)
F Factor = F, Fuel Use = U F Process Wt.

Hydrogen,wt%	: 0.00	Run 1	: 0	Tons/hr
Carbon, wt%	: 0.00	Run 2	: 0	
Sulfur, wt%	: 0.00	Run 3	: 0	
Nitrogen,wt%	: 0.00			
Oxygen, wt%	: 0.00			
Btu/lb	: 0			

Type of Flow Meter : (1=Meter Box 2=Mass Flow Meter) 1

F-Factor : dscf/MMBtu;

FIELD DATA ------- METHOD 5	RUN 1	RUN 2	RUN 3
Meter Temp., Tm (F)	75	75	73
Stack Temp., Ts (F)	225	234	218
Sq.Rt. dP	0.66	0.71	0.69
dH (in. H2O)	2.20	2.47	2.30
Meter Vol.,Vm (ft3)	52.055	53.840	55.957
Meter Y	1.000	1.000	1.000
Bar. Press.,Pb (in.Hg.)	30.35	30.35	30.35
Vol. H2O, Vlc (ml)	177	173	190
Static Press.,Ps (in.H2O)	-0.58	-0.58	-0.58
Test Time (min.)	60.0	60.0	60.0
Nozzle Dia.,Dn (in.)	0.303	0.303	0.303
Oxygen, O2 (%)	12.8	12.6	13.2
Carbon Dioxide, CO2 (%)	13.3	12.5	12.6
Carbon Monoxide, CO (%)	0.0	0.0	0.0

Report Emission Criteria in ? 1 = lb/hr g = gr/dscf : L

Process Rate Units ? T = Ton/hr, L = Lbs/hr, C = Cans/min: T

Allowable Particulate Matter Emission Rate .....: 0.00

LABORATORY RESULTS	RUN 1	RUN 2	RUN 3	
GRAVIMETRIC ANALYSIS METHOD 5 :				
Front Half Wash (FHW)	0.00000	0.00000	0.00000	grams
Filterable Sample (MF)	0.00000	0.00000	0.00000	
Condensible Sample (BHW)	0.00000	0.00000	0.00000	

SOURCE TEST CALCULATIONS

PLANT : RINKER / MIAMI, FL.
CEMENT PLANT

RUN NO.: 1
DATE : DEC. 21, 2000

STD.TEMP, Tstd	= 68 F	STATIC PRESS.,Ps	= -0.58 in. H2O
METER TEMP, Tm	=74.9166 F	PITOT COFF., Cp	= 0.840
STACK TEMP, Ts	= 225.3 F	STACK I.D.	= 132.44 inch
AVG.VEL.HEAD,dP	= 0.435 in. H2O	DUCT LENGTH	= inch
METER ORIFICE,dH	= 2.20 in. H2O	DUCT WIDTH	= inch
METER VOL., Vm	= 52.055 Cu.Ft.	STACK AREA, As	= 95.668 Sq.Ft.
METER COFF., Y	= 1.000	TEST TIME	= 60.00 min.
BAR. PRESS., Pb	= 30.35 in.Hg	NOZZLE DIA.	= 0.303 inch
COND.(Vlc)	= 177.0 ml	NOZZLE DIA., An	= 5.0E-04 Sq.Ft.

GAS ANALYSIS = 12.80 % O2 0.00 % CO
13.30 % CO2 73.90 % N2

****

Vm(std) = [(T(std) + 460) / 29.92] x Vm x Y x (Pb + (dH / 13.6)) / (Tm + 460)..... = 52.398 dscf

Vw(std) =(8.9148 x 10e-5) x (Tstd + 460) x Vlc = 8.331 scf

Bws = Vw(std) / (Vm(std) + Vw(std))..... = 0.137 | Lower Bws value used.

Bws @ Saturated Conditions = Vapor Press. of H2O @ Dew Point Temp. / (Ps, in.Hg.) ..... = 1.000

%EA =(%O2 - 0.5%CO)/(0.264%N2 - (%O2-0.5%CO)) x 100 = 190.77

Md =(.44 x %CO2)+(.32 x %O2)+[.28 x (%N2 + %CO)] = 30.64

Ms = (Md x (1-Bws)) + (18.0 x Bws)..... = 28.91

P(stack) = Pbar + (Ps / 13.6) ..... = 30.31 in. Hg

vs = 85.49 x CP x (Sq.Rt.dP) x [Sq.Rt.(Ts + 460) / (Ms x P(stack))] ..... = 41.88 ft/sec

Qs = vs x As x 60 ..... = 240,402 acf/min

Qs(std) = Qs x (1-Bws)x((Tstd + 460)/(Ts + 460)) x (P(stack)/29.92) ..... = 161,892 dscf/min

I = (Ts+460) x [(0.002669 x Vlc) + (Vm(std) / (T(std) + 460) / 29.92] x 100 / [Time x P(stack) x An x vs x 60] ..... = 103.07 %

SOURCE TEST CALCULATIONS

PLANT : RINKER / MIAMI, FL.
CEMENT PLANT

RUN NO.: 2
DATE : DEC. 21, 2000

STD.TEMP, Tstd	=	68 F	STATIC PRESS.,Ps	=	-0.58 in. H2O
METER TEMP, Tm	=	74.50 F	PITOT COFF., Cp	=	0.840
STACK TEMP, Ts	=	233.8 F	STACK I.D.	=	132.44 inch
AVG.VEL.HEAD,dP	=	0.507 in. H2O	DUCT LENGTH	=	inch
METER ORIFICE,dH	=	2.47 in. H2O	DUCT WIDTH	=	inch
METER VOL., Vm	=	53.840 Cu.Ft.	STACK AREA, As	=	95.668 Sq.Ft.
METER COFF., Y	=	1.000	TEST TIME	=	60.00 min.
BAR. PRESS., Pb	=	30.35 in.Hg	NOZZLE DIA.	=	0.303 inch
COND.(Vlc)	=	173.0 ml	NOZZLE DIA., An	=	5.0E-04 Sq.Ft.

GAS ANALYSIS = 12.60 % O2 0.00 % CO
12.50 % CO2 74.90 % N2

****

Vm(std) = [T(std) + 460 / 29.92] x Vm x Y X
(Pb + (dH / 13.6)) / (Tm + 460)..... = 54.272 dscf

Vw(std) =(8.9148 x 10e-5) x (Tstd + 460) x Vlc = 8.143 scf

Bws = Vw(std) / (Vm(std) + Vw(std))..... = 0.130 | Lower Bws value used.

Bws @ Saturated Conditions = Vapor Press. of H2O
@ Dew Point Temp. / (Ps, in.Hg.) ..... = 1.000

%EA =(%O2 - 0.5%CO)/(0.264%N2 - (%O2-0.5%CO)) x 100 = 175.64

Md =(.44 x %CO2)+(.32 x %O2)+[.28 x (%N2 + %CO)] = 30.50

Ms = (Md x (1-Bws)) + (18.0 x Bws)..... = 28.87

P(stack) = Pbar + (Ps / 13.6) ..... = 30.31 in. Hg

vs = 85.49 x CP x (Sq.Rt.dP) x [Sq.Rt.(Ts + 460)
/ (Ms x P(stack))] ..... = 45.53 ft/sec

Qs = vs x As x 60 ..... = 261,372 acf/min

Qs(std) = Qs x (1-Bws)x((Tstd + 460)/(Ts + 460))
x (P(stack)/29.92) ..... = 175,190 dscf/min

I = (Ts+460) x [(0.002669 x Vlc) + (Vm(std) /
(T(std) + 460) / 29.92] x 100 / [Time x
P(stack) x An x vs x 60] ..... = 98.65 %

SOURCE TEST CALCULATIONS

PLANT : RINKER / MIAMI, FL.
CEMENT PLANT

RUN NO.: 3
DATE : DEC. 21, 2000

STD.TEMP, Tstd	= 68	F	STATIC PRESS.,Ps	= -0.58	in. H2O
METER TEMP, Tm	= 73.25	F	PITOT COFF., Cp	= 0.840	
STACK TEMP, Ts	= 217.8	F	STACK I.D.	= 132.44	inch
AVG.VEL.HEAD,dP	= 0.471	in. H2O	DUCT LENGTH	=	inch
METER ORIFICE,dH=	2.30	in. H2O	DUCT WIDTH	=	inch
METER VOL., Vm	= 55.957	Cu.Ft.	STACK AREA, As	= 95.668	Sq.Ft.
METER COFF., Y	= 1.000		TEST TIME	= 60.00	min.
BAR. PRESS., Pb	= 30.35	in.Hg	NOZZLE DIA.	= 0.303	inch
COND.(Vlc)	= 190.0	ml	NOZZLE DIA., An	= 5.0E-04	Sq.Ft.

GAS ANALYSIS = 13.20 % O2 0.00 % CO
12.60 % CO2 74.20 % N2

****

Vm(std) = [T(std) + 460 / 29.92] x Vm x Y x (Pb + (dH / 13.6)) / (Tm + 460).....	=	56.516	dscf
Vw(std) =(8.9148 x 10e-5) x (Tstd + 460) x Vlc	=	8.943	scf
Bws = Vw(std) / (Vm(std) + Vw(std)).....	=	0.137	Lower Bws value used.
Bws @ Saturated Conditions = Vapor Press. of H2O @ Dew Point Temp. / (Ps, in.Hg.)	=	1.000	
%EA =(%O2 - 0.5%CO)/(0.264%N2 - (%O2-0.5%CO)) x 100	=	206.61	
Md =(.44 x %CO2)+(.32 x %O2)+[.28 x (%N2 + %CO)]	=	30.54	
Ms = (Md x (1-Bws)) + (18.0 x Bws).....	=	28.83	
P(stack) = Pbar + (Ps / 13.6)	=	30.31	in. Hg
vs = 85.49 x CP x (Sq.Rt.dP) x [Sq.Rt.(Ts + 460) / (Ms x P(stack))]	=	43.42	ft/sec
Qs = vs x As x 60	=	249,258	acf/min
Qs(std) = Qs x (1-Bws)x((Tstd + 460)/(Ts + 460)) x (P(stack)/29.92)	=	169,803	dscf/min
I = (Ts+460) x [(0.002669 x Vlc) + (Vm(std) / (T(std) + 460) / 29.92] x 100 / [Time x P(stack) x An x vs x 60]	=	105.99	%

A. FIELD DATA SUMMARY

PLANT : RINKER / MIAMI, FL.
CEMENT PLANT
DATE : DEC. 21, 2000

	RUN 1	RUN 2	RUN 3
Vlc = Vol water collected in train, ml	177.0	173.0	190.0
Vm = Sample gas vol, meter cond., acf	52.055	53.840	55.957
Y = Meter calibration factor	1.0000	1.0000	1.0000
Pbar = Barometric pressure, in. Hg	30.35	30.35	30.35
Pstatic = Stack static pressure, in. H2O	-0.58	-0.58	-0.58
dH = Avg meter pressure diff, in. H2O	2.20	2.47	2.30
Tm = Absolute meter temp., degrees R	534.9	534.5	533.3
Vm(std) = Sample gas vol, Std. cond., dscf	52.398	54.272	56.516
Bws = Water vapor in gas stream, fraction	0.137	0.130	0.137
MF = Moisture factor (1 - Bws)	0.863	0.870	0.863
CO2 = Carbon Dioxide, dry, volume %	13.30	12.50	12.60
O2 = Oxygen, dry, volume %	12.80	12.60	13.20
N2 = Nitrogen, dry volume %	73.90	74.90	74.20
Md = Molecular weight of stack gas, dry	30.64	30.50	30.54
Ms = Molecular weight of stack gas, wet	28.91	28.87	28.83
Cp = Pitot tube coefficient	0.84	0.84	0.84
Sq.Rt. dP = Avg. square root of each dP	0.6594	0.7121	0.6866
Ts = Absolute stack temp., degrees R	685.3	693.8	677.8
A = Area of stack, ft2	95.67	95.67	95.67
Qstd = Volumetric flowrate, dscfm	161,892	175,190	169,803
An = Nozzle area, ft2	5.01E-04	5.01E-04	5.01E-04
O = Sample time, minutes	60.00	60.00	60.00
%I = Isokinetic variation, percent	103.07	98.65	105.99

B. PARTICULATE DATA SUMMARY

PLANT : RINKER / MIAMI, FL.
CEMENT PLANT
DATE : DEC. 21, 2000

	RUN 1	RUN 2	RUN 3
Sample Weight (FHW + MF + BHW), mg	0.00	0.00	0.00
Meter Volume, standard cond., Vm(std)	52.398	54.272	56.516
Carbon Dioxide, percent	13.30	12.50	12.60
Oxygen, percent	12.80	12.60	13.20
Sample Concentration :			
gr/scf	0.0000	0.0000	0.0000
gr/dscf	0.0000	0.0000	0.0000
gr/dscf @ 0 % CO2	0.0000	0.0000	0.0000
gr/dscf @ 0 % O2	0.0000	0.0000	0.0000
ppm * MW (dry gas).....	0.0	0.0	0.0
ppm * MW @ 0% CO2	0.0	0.0	0.0
ppm * MW @ 0% O2	0.0	0.0	0.0

EMISSION RATE CALCULATIONS

PLANT :RINKER / MIAMI, FL.
CEMENT PLANT

STANDARD TEMP. : 68 F
RUN NO.: 1
DATE : DEC. 21, 2000

Front Half Wash (FHW)	0.00000 grams	Vm(std)	52.398 ft3
Mass Filter (MF)	0.00000 grams	Vw(std)	8.331 ft3
Back Half Wash (BHW)	0.00000 grams	Qs(std)	161,892 dscfm
Vm(std) SO2	dscf	Bws	0.137
CO2 CORR 0.0 %		CO2	13.30 %
O2 CORR. 0.0 %		O2	12.80 %

F-FACTOR

10E6 x [3.64(%H) + 1.53(%C) + 0.57(%S) + 0.14(%N) - 0.46(%O2)] / (Btu/lb) x [(Tstd + 460)/528] ..... dscf/MMBtu

FUEL USE

Use Rate (gal/ton) * Process Wt. (ton/hr) ..... gal/hr
Heat Input = (Process Weight (ton/hr) x Heating .... MMBtu/hr
Value (Btu/gal) x Fuel Use Rate (gal/ton) / 1E6

TOTAL PARTICULATE

15.432 x (FHW + MF + BHW) / [(Vm(std) + Vw(std)] ...	0.0000	gr/scf
15.432 x (FHW + MF + BHW) / (Vm(std)	0.0000	gr/dscf
gr/dscf x (12 / %CO2)	0.0000	@ 0% CO2
gr/dscf x [(20.9 - Oxygen corr.) / (20.9 - %O2)] ...	0.0000	@ 0% O2
0.00857 x Qs(std) x gr/dscf	0.00	lb/hr
F-Fac x 1.4286E-4 x [20.9 / (20.9-%O2)] x gr/dscf ..		lb/MMBtu
Particulate (lb/hr) / Heat Input (MMBtu/hr)		lb/MMBtu

TOTAL ACID MIST

[1.0811E-4 x (Vt - Vtb) x N x Vsol] / Vol(aloq)	lb Acid Mist
[Acid Mist (lb) / Vm std (ft^3)] x Qs std x 60 ...	lb/hr
[Acid Mist (lb) / Vm std (ft^3)] x F-Factor	lb/MMBtu

SULFUR DIOXIDE (SO2)

[7.061E-5 x (Vt - Vtb) x N x Vsol] / Vol(aloq)	lb SO2
[SO2 (lb) / Vm std (ft^3)] x Qs std (ft^3/min) x 60	lb/hr
[SO2 (lb) / Vm std (ft^3)] x F	lb/MMBtu
[Mass SO2 (lb) x 385 / 64E+6 (ft^3/lb)] / Vm (std)	ppm
ppm x 0.0 % Corr. / 13.3 % CO2 in Stack	ppm @ 0% CO2
ppm x (20.9% - 0.0% O2 Corr)/(20.9% - 12.8% O2 Stack	ppm @ 0% O2
SO2 (lb/hr / Heat Input)	lb/MMBtu

HYDROGEN CHLORIDE DATA SUMMARY

[Mass HCl(mg) x 385 x 1E6] / [453600 x 36.5 x Vm(std	ppm
ppm x 0.0 % Corr. / 13.3 % CO2 in Stack	ppm @ 0% CO2
ppm x (20.9% - 0.0% O2 Corr)/(20.9% - 13.3% O2 Stack	ppm @ 0% O2
[Mass HCl(mg) x 60 x Qs / (Vm(std) x 453,600)]...	lb/hr

EMISSION RATE CALCULATIONS

PLANT :RINKER / MIAMI, FL.
CEMENT PLANT

RUN NO.: 2
STANDARD TEMP. : 68 F DATE : DEC. 21, 2000

Front Half Wash (FHW)	0.00000 grams	Vm(std)	54.272 ft3
Mass Filter (MF)	0.00000 grams	Vw(std)	8.143 ft3
Back Half Wash (BHW)	0.00000 grams	Qs(std)	175,190 dscfm
Vm(std) SO2	dscf	Bws	0.130
CO2 CORR 0.0 %		CO2	12.50 %
O2 CORR. 0.0 %		O2	12.60 %

F-FACTOR

10E6 x [3.64(%H) + 1.53(%C) + 0.57(%S) + 0.14(%N) - 0.46(%O2)] / (Btu/lb) x [(Tstd + 460)/528] ..... dscf/MMBtu

FUEL USE

Use Rate (gal/ton) * Process Wt. (ton/hr) ..... gal/hr
Heat Input = (Process Weight (ton/hr) x Heating .... MMBtu/hr
Value (Btu/gal) x Fuel Use Rate (gal/ton) / 1E6

TOTAL PARTICULATE

15.432 x (FHW + MF + BHW) / [(Vm(std) + Vw(std)] ...	0.0000	gr/scf
15.432 x (FHW + MF + BHW) / (Vm(std)	0.0000	gr/dscf
gr/dscf x (12 / %CO2)	0.0000	@ 0% CO2
gr/dscf x [(20.9 - Oxygen corr.) / (20.9 - %O2)] ...	0.0000	@ 0% O2
0.00857 x Qs(std) x gr/dscf	0.00	lb/hr
F-Fac x 1.4286E-4 x [20.9 / (20.9-%O2)] x gr/dscf ..		lb/MMBtu
Particulate (lb/hr) / Heat Input (MMBtu/hr)		lb/MMBtu

TOTAL ACID MIST

[1.0811E-4 x (Vt - Vtb) x N x Vsol] / Vol(aloq)	lb Acid Mist
[Acid Mist (lb) / Vm std (ft^3)] x Qs std x 60 ...	lb/hr
[Acid Mist (lb) / Vm std (ft^3)] x F-Factor	lb/MMBtu

SULFUR DIOXIDE (SO2)

[7.061E-5 x (Vt - Vtb) x N x Vsol] / Vol(aloq) .	lb SO2
[SO2 (lb) / Vm std (ft^3)] x Qs std (ft^3/min) x 60	lb/hr
[SO2 (lb) / Vm std (ft^3)] x F	lb/MMBtu
[Mass SO2 (lb) x 385 / 64E+6 (ft^3/lb)] / Vm (std)	ppm
ppm x 0.0 % Corr. / 13.3 % CO2 in Stack	ppm @ 0% CO2
ppm x (20.9% - 0.0% O2 Corr)/(20.9% - 13.3% O2 Stack	ppm @ 0% O2
SO2 (lb/hr / Heat Input)	lb/MMBtu

HYDROGEN CHLORIDE DATA SUMMARY

[Mass HCl(mg) x 385 x 1E6] / [453600 x 36.5 x Vm(std	ppm
ppm x 0.0 % Corr. / 12.5 % CO2 in Stack	ppm @ 0% CO2
ppm x (20.9% - 0.0% O2 Corr)/(20.9% - 12.5% O2 Stack	ppm @ 0% O2
[Mass HCl(mg) x 60 x Qs / (Vm(std) x 453,600)]...	lb/hr

EMISSION RATE CALCULATIONS

PLANT :RINKER / MIAMI, FL.
CEMENT PLANT

RUN NO.: 3
STANDARD TEMP. : 68 F DATE : DEC. 21, 2000

Front Half Wash (FHW)	0.00000 grams	Vm(std)	56.516 ft3
Mass Filter (MF)	0.00000 grams	Vw(std)	8.943 ft3
Back Half Wash (BHW)	0.00000 grams	Qs(std)	169,803 dscfm
Vm(std) SO2	dscf	Bws	0.137
CO2 CORR 0.0 %		CO2	12.60 %
O2 CORR. 0.0 %		O2	13.20 %

F-FACTOR

10E6 x [3.64(%H) + 1.53(%C) + 0.57(%S) + 0.14(%N) - 0.46(%O2)] / (Btu/lb) x [(Tstd + 460)/528] ..... dscf/MMBtu

FUEL USE

Use Rate (gal/ton) * Process Wt. (ton/hr) ..... gal/hr
Heat Input = (Process Weight (ton/hr) x Heating .... MMBtu/hr
Value (Btu/gal) x Fuel Use Rate (gal/ton) / 1E6

TOTAL PARTICULATE

15.432 x (FHW + MF + BHW) / [(Vm(std) + Vw(std)] ...	0.0000	gr/scf
15.432 x (FHW + MF + BHW) / (Vm(std)	0.0000	gr/dscf
gr/dscf x (12 / %CO2)	0.0000	@ 0% CO2
gr/dscf x [(20.9 - Oxygen corr.) / (20.9 - %O2)] ...	0.0000	@ 0% O2
0.00857 x Qs(std) x gr/dscf	0.00	lb/hr
F-Fac x 1.4286E-4 x [20.9 / (20.9-%O2)] x gr/dscf ..		lb/MMBtu
Particulate (lb/hr) / Heat Input (MMBtu/hr)		lb/MMBtu

TOTAL ACID MIST

[1.0811E-4 x (Vt - Vtb) x N x Vsol] / Vol(aloq) lb Acid Mist
[Acid Mist (lb) / Vm std (ft^3)] x Qs std x 60 ... lb/hr
[Acid Mist (lb) / Vm std (ft^3)] x F-Factor ..... lb/MMBtu

SULFUR DIOXIDE (SO2)

[7.061E-5 x (Vt - Vtb) x N x Vsol] / Vol(aloq) . lb SO2
[SO2 (lb) / Vm std (ft^3)] x Qs std (ft^3/min) x 60 lb/hr
[SO2 (lb) / Vm std (ft^3)] x F ..... lb/MMBtu
[Mass SO2 (lb) x 385 / 64E+6 (ft^3/lb)] / Vm (std) ppm
ppm x 0.0 % Corr. / 13.3 % CO2 in Stack ..... ppm @ 0% CO2
ppm x (20.9% - 0.0% O2 Corr)/(20.9% - 13.3% O2 Stack ppm @ 0% O2
SO2 (lb/hr / Heat Input) ..... lb/MMBtu

HYDROGEN CHLORIDE DATA SUMMARY

[Mass HCl(mg) x 385 x 1E6] / [453600 x 36.5 x Vm(std ppm
ppm x 0.0 % Corr. / 12.6 % CO2 in Stack ..... ppm @ 0% CO2
ppm x (20.9% - 0.0% O2 Corr)/(20.9% - 12.6% O2 Stack ppm @ 0% O2
[Mass HCl(mg) x 60 x Qs / (Vm(std) x 453,600)]... lb/hr

Company: Rinker
Source: Cement Kiln
RUN 1

Location:Miami FL
Date: December 21, 2000

vs =	41.72	FT/SEC	As = 95.6100 ft^2
Q =	239359	acfm -	not corrected
Q(stnd) =	164401	dscfm -	both temperature and moisture corrected
Q(moist)=	213363	dcfm -	only moisture corrected
Q(temp) =	186819	scfm -	only temperature corrected

Moisture

Vm(Std) =	0	Bws =	ERR	Lower Bws
Vw(Std) =	0	Bws @sat =	1	Value used

Percent Moist = ERR

Emission Rates:

CO =	0.0000	lb/hr
NOx =	0.0000	lb/hr as NO2
SO2 =	0.0000	lb/hr
THC =	0.0000	lb/hr as Propane

EQUATIONS :

As = (PI*(Stack Dia/12)^2)/4 --- Round Stacks

or

As = (Stack L/12)*(Stack W/12) --- Square Stacks

Md = (.44*%CO2)+(.32*%O2)+(.28*(100-(%CO2+%O2)))

Ms = (Md*(1-%Moist))+(18*%Moist)

P(stack) = Pb+(Ps/13.6)

vs = (85.49)*(0.85)*(Sqrt.Dp)*(Sqrt[(T(s)+460)/(Ms*P(stack))])

Q = vs * As * 60

Q(stnd) = Q*(1-%Moist)*(528/(Ts+460))*(P(stack)/29.92)

Vm (Stnd) = 17.6471 * Vm * Y * ((Pb+(dH/13.6))/(Tm+460))

Vw (Stnd) = 0.0471 * Vlc

Bws = (Vw(Stnd) / (Vm(Stnd)+ Vw(Stnd))

Bws @ Sat = Vap. Pressure of H2O @ Dew Point Temp/Ps

CO (lb/hr) = ((PPM CO)*Q(stnd)*28.01*60)/(385*10^6)

Company: Rinker
Source: Cement Kiln
RUN 1

Location:Miami FL
Date: December 21, 2000

12

Sqrt.Dp= 0.6594

T(s)= 225.25

Filename:
QuickFLOW
[Alt-C]
to clear input
range

Data Point	Stack Velocity Head	Stack Gas Temp.
1	0.35	222
2	0.44	224
3	0.46	221
4	0.39	222
5	0.44	225
6	0.49	229
7	0.4	223
8	0.48	227
9	0.48	229
10	0.4	225
11	0.45	227
12	0.45	229
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	0	0

Pb =	30.35	in Hg
Ps =	-0.58	in H2O
%O2 =	12.8	%
%CO2 =	13.3	%
%Moist =	12.00	%
Stack Dia	132.4	in
or		
Stack L =		in
Stack W =		in
PPM CO =		ppm
PPM NOx =		ppm
PPM SO2 =		ppm
PPM THC =		ppm
Vm =		ft3
dH =		in H2O
Tm =		F
Y =		
Vlc =		ml

Company: Rinker
Source: Cement Kiln
RUN 2

Location:Miami FL
Date: December 21, 2000

Sqrt.Dp= 0.7121

T(s)= 233.83

12

Filename:
QuickFLOW
[Alt-C]
to clear input
range

Data Point	Stack Velocity Head	Stack Gas Temp.
1	0.43	247
2	0.51	248
3	0.61	245
4	0.44	235
5	0.53	234
6	0.6	235
7	0.42	226
8	0.51	229
9	0.6	232
10	0.37	221
11	0.54	226
12	0.56	228
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	0	0

Pb =	30.35 in Hg
Ps =	-0.58 in H2O
%O2 =	12.3 %
%CO2 =	12.5 %
%Moist =	14.00 %
Stack Dia	132.4 in
or	
Stack L =	in
Stack W =	in
PPM CO =	ppm
PPM NOx =	ppm
PPM SO2 =	ppm
PPM THC =	ppm
Vm =	ft3
dH =	in H2O
Tm =	F
Y =	
Vlc =	ml

Company: Rinker
Source: Cement Kiln
RUN 2

Location:Miami FL
Date: December 21, 2000

vs =	45.64 FT/SEC	As =	95.6100 ft^2
Q =	261802 acfm -	not corrected	
Q(stnd) =	173555 dscfm -	both temperature and moisture corrected	
Q(moist)=	228064 dcfm -	only moisture corrected	
Q(temp) =	201808 scfm -	only temperature corrected	

Moisture

Vm(Std) =	0	Bws =	ERR	Lower Bws
Vw(Std) =	0	Bws @sat =	1	Value used

Percent Moist = ERR

Emission Rates:

CO =	0.0000	lb/hr
NOx =	0.0000	lb/hr as NO2
SO2 =	0.0000	lb/hr
THC =	0.0000	lb/hr as Propane

EQUATIONS :

As = (PI*(Stack Dia/12)^2)/4 --- Round Stacks

or

As = (Stack L/12)*(Stack W/12) --- Square Stacks

Md = (.44*%CO2)+(.32*%O2)+(.28*(100-(%CO2+%O2)))

Ms = (Md*(1-%Moist))+(18*%Moist)

P(stack) = Pb+(Ps/13.6)

vs = (85.49)*(0.85)*(Sqrt.Dp)*(Sqrt[(T(s)+460)/(Ms*P(stack))])

Q = vs * As * 60

Q(stnd) = Q*(1-%Moist)*(528/[Ts+460))*(P(stack)/29.92)

Vm (Stnd) = 17.6471 * Vm * Y * ((Pb+(dH/13.6))/(Tm+460))

Vw (Stnd) = 0.0471 * Vlc

Bws = (Vw(Stnd) / (Vm(Stnd)+ Vw(Stnd))

Bws @ Sat = Vap. Pressure of H2O @ Dew Point Temp/Ps

CO (lb/hr) = ((PPM CO)*Q(stnd)*28.01*60)/(385*10^6)

Company: Rinker
Source: Cement Kiln
RUN 3

Location:Miami FL
Date: December 21, 2000

12

Sqrt.Dp= 0.6866

T(s)= 217.83

Filename:
QuickFLOW
[Alt-C]
to clear input
range

Data Point	Stack Velocity Head	Stack Gas Temp.
1	0.6	224
2	0.51	223
3	0.37	216
4	0.56	222
5	0.5	219
6	0.35	215
7	0.59	220
8	0.49	218
9	0.35	211
10	0.54	219
11	0.49	217
12	0.36	210
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	0	0

Pb =	30.35	in Hg
Ps =	-0.58	in H2O
%O2 =	13.2	%
%CO2 =	12.6	%
%Moist =	14.00	%
Stack Dia	132.4	in
or		
Stack L =		in
Stack W =		in
PPM CO =		ppm
PPM NOx =		ppm
PPM SO2 =		ppm
PPM THC =		ppm
Vm =		ft3
dH =		in H2O
Tm =		F
Y =		
Vlc =		ml

Company: Rinker
Source: Cement Kiln
RUN 3

Location:Miami FL
Date: December 21, 2000

vs =	43.46 FT/SEC	As =	95.6100 ft^2
Q =	249291 acfm -	not corrected	
Q(stnd) =	169162 dscfm -	both temperature and moisture corrected	
Q(moist)=	217165 dcfm -	only moisture corrected	
Q(temp) =	196700 scfm -	only temperature corrected	

Moisture

Vm(Std) =	0	Bws =	ERR	Lower Bws
Vw(Std) =	0	Bws @sat =	1	Value used

Percent Moist = ERR

Emission Rates:

CO =	0.0000	lb/hr
NOx =	0.0000	lb/hr as NO2
SO2 =	0.0000	lb/hr
THC =	0.0000	lb/hr as Propane

EQUATIONS :

As = (PI*(Stack Dia/12)^2)/4 --- Round Stacks

or

As = (Stack L/12)*(Stack W/12) --- Square Stacks

Md = (.44*%CO2)+(.32*%O2)+(.28*(100-(%CO2+%O2)))

Ms = (Md*(1-%Moist))+(18*%Moist)

P(stack) = Pb+(Ps/13.6)

vs = (85.49)*(0.85)*(Sqrt.Dp)*(Sqrt[(T(s)+460)/(Ms*P(stack))])

Q = Vs * As * 60

Q(stnd) = Q*(1-%Moist)*(528/(Ts+460))*(P(stack)/29.92)

Vm (Stnd) = 17.6471 * Vm * Y * ((Pb+(dH/13.6))/(Tm+460))

Vw (Stnd) = 0.0471 * Vlc

Bws = (Vw(Stnd) / (Vm(Stnd)+ Vw(Stnd))

Bws @ Sat = Vap. Pressure of H2O @ Dew Point Temp/Ps

CO (lb/hr) = ((PPM CO)*Q(stnd)*28.01*60)/(385*10^6)

KOOGLER & ASSOCIATES
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263-01-01
April 6, 2001

Mr. John Reynolds
Florida Department of
Environmental Protection
Division of Air Resources Management
111 S. Magnolia Drive, Suite 23
Tallahassee, Florida 32301

Subject: **CSR Rinker Materials Corporation**
Permit No 0250014-002-AC
Comments on Department Suggested Permit Amendments
and an Amendment to Change Basis of SO_2 and NO_x Emission Limits

Dear Mr. Reynolds:

Following are our comments on the Department suggested amendments to the above captioned permit issued to the CSR Rinker Materials Corporation (Rinker) for the construction and initial operation of a 3300 ton per day (clinker) Portland cement plant in Dade County, Florida. The Department amendments are those contained in the Draft Permit Amendment addressed to Sharon DeHays from Howard Rhodes dated March 15, 2001. Our most substantive comment is related to the proposal to install a VOC Continuous Emission Monitoring System (CEMS) to provide the Department with reasonable assurance that the VOC emission limit for the plant will be met on a continuing basis. We are offering an alternative procedure to provide the Department with reasonable assurance that the VOC emission limit can be met on a continuing basis, and are also addressing issues raised regarding clinker production rates. Rinker has no objection to the Department amendments related to alternative fuels.

In addition to the amendments suggested by the Department, Rinker is suggesting an amendment changing the units of measurement of the SO_2 and NO_x emission limits (Table 1-2) from pounds per million BTU to pounds per ton of clinker. The maximum permitted emission rates of SO_2 and NO_x will remain unchanged. The suggestion to change the units of measurement of these limits is to provide consistency and conformity with permit conditions developed by the Department for other like cement plants in the state..

Alternative to VOC CEMS

As an alternative to installing a CEMS to measure VOC emissions, Rinker proposes to establish a program of monitoring feed materials for hydrocarbon content.

VOC emission measurements have been conducted at the Rinker plant (December 21, 2000) demonstrating compliance with the VOC emission limiting standard. These tests, plus the VOC emission tests and in-process VOC measurements conducted at other dry process Portland cement plants using precalciner technology demonstrate that the pyro-processing system (the kiln and precalciner) is quite efficient at reducing hydrocarbon compounds in exhaust gases to trace levels. Other information provided to the Department has conclusively demonstrated that the majority of VOCs measured in the stack gas from the kiln system result from hydrocarbon compounds that are in the raw meal fed to the preheater. As the raw meal is heated (during its passage downward through the preheater), hydrocarbons in the raw meal are volatilized and appear as VOCs in the stack gas. Thus, as an alternative to the VOC CEMS and to provide the Department with reasonable

assurance that the VOC emission limiting standard will be met on a continuing basis, Rinker proposes the following:

1. Each order of feed material obtained from an off-site source (mill scale, flyash, etc.) will be tested upon receipt by Rinker for Total Recoverable Petroleum Hydrocarbons (TRPH) using the test method FL-PRO. Feed materials derived on-site (limestone, etc.) will be tested monthly for TRPH using the test method FL-PRO.

2. Additionally, Rinker will sample the blended preheater feed from the homogenizing silo on a daily basis, composite samples over a one week period, and analyze the weekly composited sample for TRPH using the FL-PRO test method. A record of all test results will be maintained by Rinker, and will be available to the Department and DERM for review.

This proposed condition requires Rinker to monitor individual feed materials as well as the blended material fed to the preheater on a regular basis for hydrocarbon products.

As information provided to the Department has demonstrated that hydrocarbon compounds in feed material are the predominant source of VOC emissions from dry process Portland cement plants, the monitoring plan proposed by Rinker will be adequate to provide the Department with reasonable assurance that abnormal levels of hydrocarbons are not present in the feed materials, and hence will not be present in the stack gas from the kiln system.

Preheater Feed to Clinker Conversion Factor

As we have discussed, the empirical factor Rinker uses to convert preheater feed to the clinker production (on a short term basis) is a divisor which will range from approximately 1.5 to 1.7. In other words, the preheater feed rate divided by this empirical factor will provide the most accurate short-term measure of clinker production available. For permitting purposes, Rinker used an average factor of 1.6; the permitted preheater feed rate of 220 tons per hour divided by 1.6 yields the permitted clinker production rate of 137 tons per hour.

As the empirical factor varies with variations in feed materials and fuel, changes in raw meal mix ratios and/or various operating parameters, Rinker determines the empirical factor on a periodic basis and calculates clinker production for the period as the preheater feed rate divided by this factor.

For compliance purposes, Rinker has no objection to providing the Department or DERM with the value of this empirical factor when they are providing notification of a scheduled compliance test. This factor will then be used to calculate clinker production rate as required in the compliance test report.

Alternative Fuels

Rinker does not object to the elimination of POTW sewage sludge as alternative fuels for the cement plant, nor to the elimination, at this time, of whole tires or tire derived fuel as alternative fuels. Rinker does, however, reserve the right to request an Amendment to the above captioned permit at a later date, directly from DERM, which will allow the use of whole tires and/or tire derived fuel as alternative fuels.

SO_2 and NO_x Emission Limits

The SO_2 and NO_x emission limiting standards for the kiln system (Table 1-2 of the above captioned permit) are listed as 0.7 and 1.53 pounds per mmBTU, respectively. Further, the maximum SO_2 and NO_x emissions are limited to 306 pounds per hour (1340 tpy) and 671 pounds per hour (2940 tpy)

respectively. Compliance with both of these emission limits is to be demonstrated by Continuous Emission Monitoring Systems (CEMS). It is our understanding that the basis for these emission limits (pounds per mmBTU) could be a general Dade County ordinance limiting sulfur dioxide emissions based on heat input and a RACT rule applicable to Dade County which limits NO_x emissions based on heat input.

The convention within the cement industry is to limit SO_2 and NO_x emissions (and other emissions) based on clinker production; i.e., a limit with units pounds per ton of clinker. This convention is even reflected in the above captioned permit in Specific Condition B.11 (page 9 of 17). This condition states:

> Every day, the 24-hour average SO_2 and NO_x 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...

The last paragraph in Specific Condition B.11 also states:

> 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 previously calculated F factors, but not less than once per year.

To make the SO_2 and NO_x emission limits in the above captioned permit consistent with the intent of Specific Condition B.11 of the permit and consistent with the convention adopted by the Department for other like cement plants, it is requested that the units of measurement for the SO_2 and NO_x emission limits in Table 1-2 be changed from pounds per million BTU to pounds per ton of clinker. It is also suggested that the last paragraph of Specific Condition B.11 be amended to eliminate any reference to F factors as Rinker has installed a Continuous Flow Rate Monitoring System (CFRMS) with data from this CFRMS being used to calculate mass emission rates. Because of the carbon dioxide generated during the production of Portland cement, the CFRMS is much more accurate for determining stack gas flow rate than the F factor.

To convert the units of measurement of the SO_2 and NO_x emission limits, the following is suggested. The maximum permitted heat input rate to the plant (438 mmBTU per hour), the maximum clinker production rate (137 tons per hour) and the maximum SO_2 and NO_x emission rates (306 pounds per hour and 671 pounds per hour, respectively), are all related in that they represent the maximum emissions expected at the maximum production rate and the maximum heat input rate.

If the maximum sulfur dioxide and nitrogen oxides emission rates (pounds per hour) are divided by the maximum permitted heat input rate of 438 mmBTU per hour, the presently permitted SO_2 and NO_x emission limits of 0.7 and 1.53 pounds per mmBTU, are obtained. To convert the SO_2 and NO_x emission limits to pounds per ton of clinker it is proposed that the maximum SO_2 emission rate (306 pounds per hour) be divided by the maximum permitted clinker production (137 tons per hour) to yield 2.23 pounds of SO_2 per ton of clinker. Similarly, for NO_x, it is suggested that the maximum emission rate (671 pounds per hour) be divided by the maximum permitted clinker production rate (137 tons per hour) to yield 4.90 pounds of NO_x per ton of clinker. If both of the proposed SO_2 and NO_x emission limits (pounds per ton of clinker) are multiplied by the maximum annual permitted clinker production rate (1.2 million tons per year), the annual SO_2 and NO_x emission caps contained in Table 1-2 (1340 tpy and 2940 tpy, respectively) are obtained; demonstrating the equivalency of the proposed emission limits with the permitted limits.

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I appreciate your review and consideration of these comments. If our suggested alternative for VOC emission monitoring and our and our suggestion for the change in units of measurement for the SO_2 and NO_x emission limits are acceptable, please provide written confirmation as soon as possible. If there are concerns regarding either proposed alternative, we would appreciate meeting with you at the earliest possible date, as we have discussed, so these matters can be resolved as expeditiously as possible.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK/jm
cc: Scott Benyon, CSR Rinker, West Palm Beach
Mike Vardeman, CSR Rinker, Miami
Jake Varn, Fowler & White