UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

MAY 22 1997

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MAY 28 1997
BUREAU OF
AIR REGULATION

4APT-ARB

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

SUBJ: Rinker Materials, Inc., Miami Cement Plant

Dear Mr. Linero:

We have received your March 31, 1997, letter submitting an application from Rinker Materials, Inc. for the replacement of an existing wet process cement plant with a modern dry process cement plant with a precalciner. The applicant does not believe PSD review will be applicable and has included netting calculations to support this claim. We have reviewed the application, the applicant's March 24, 1997, response to the State's completeness review, and the applicant's April 16, 1997, letter containing revised calculations.

Additions to the existing facility will consist of a limestone crushing operation located close to the quarry, a raw roller mill, one homogenizing silo, a preheater/precalciner/kiln system, clinker cooler, an additional finish mill, a coal roller mill, and associated processed material storage and handling systems. Contemporaneous emission increases which have occurred at the existing facility consist of (1) the modification associated with the stone dryer/soil thermal treatment unit which occurred during 1993 to allow processing of contaminated soils in the existing stone dryer and (2) the construction and operation of a new portable crushing unit which was completed during 1996. Contemporaneous emission decreases will occur as a result of the shutdown of existing equipment at the facility. This equipment includes the two existing kilns, the two existing clinker coolers, and the clinker conveyor and clinker box. Below are comments regarding our review of the information associated with the netting calculations.

1. Based on a conversation between Mr. Keith Goff of my staff and Ms. Teresa Heron of your office, there are

currently no permit emission limits for the stone dryer/soil thermal treatment unit (emission unit 014) which was modified during 1993 and has been included in the netting calculations. Rinker Materials has contended that since there are no permit emission limits for this unit, it should not be considered as an emission increase in the netting calculations. However, the "New Source Review Workshop Manual," (October 1990), states that when any emissions decrease is claimed, all source-wide creditable and contemporaneous emissions increases and decreases of the pollutant subject to netting must be included in the PSD applicability determination. The fact that a permit with emission limits was not issued does not prevent the stone dryer/soil thermal treatment unit from being included in the netting calculation as a contemporaneous emission increase. If an emission unit does not have federally-enforceable permit conditions or SIP requirements to restrict the allowable emissions, the allowable emissions following the modification are considered to be the potential to emit following the modification which is based on full capacity and year-round operation.

2. In determining contemporaneous emissions changes from previous modifications, the allowable emissions following the modification must be compared with the average actual emission rate during the 2-year period just prior to the physical or operational change (or another 2-year time period which is representative of normal source operation). Therefore, the allowable emissions following the modification to emissions unit 014 (Stone Dryer/Soil Thermal Treatment Unit) which was completed on June 25, 1993, should be compared with the average actual annual emissions during 1991 and 1992, or another representative two year period. The calculation provided in the application for emission unit 014 only compares the emissions following the modification with the 1992 emissions.

3. We notice that the State has instructed Rinker Materials to base the creditable NO_x emission decrease from the two existing kilns on the emission limit of 2.0 lb/mmBtu, which is based on the applicable RACT rule. The RACT rule required compliance with the limit by May 31, 1995. The revised calculation of the creditable NO_x decrease presented in the April 16, 1997, letter is based on use of actual emissions during January through May 1995 and the allowable emissions during June 1995 through December 1996. The revised calculation results in a decrease in the creditable emissions decrease for NO_x from -3,578.31 tpy to -2,988.6 tpy. For this pollutant, the actual emissions for the June 1995 through December 1996 period exceeded the allowable emissions.

Thank you for the opportunity to review and comment on the application material. If you have any questions regarding our review, please contact Mr. Keith Goff of my staff at (404)562-9137.

Sincerely yours,

Douglas Neeley

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides, and Toxics Management Division

CC: T. Heron, BAR
C. Holladay, BAR
NPS
SED
Dade Co.
Kooglar & Assoc. - Steve Cullen

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX 377-7158

May 19, 1997

Mr. Al Linero
Administrator, NSR Section
FDEP -- Division of Air Resources
2600 Blair Stone Road
Tallahassee, FL 32399-2400

SUBJECT: Rinker Materials Corporation -- Miami Cement Plant
FDEP File No. 0250014-002-AC
Additional Information per Department Request

Dear Mr. Linero:

This letter shall respond to the Department's requests for clarification and additional information.

I. NSPS/NESHAP APPLICABILITY

In the letter dated May 9, 1997, the DEP raised the question of applicability of certain New Source Performance Standards (NSPS Subparts Eb and O) and a National Emission Standard for Hazardous Air Pollutants (NESHAP Subpart E).

This response presents reasons why these rules are inapplicable.

NSPS Subpart Eb

This subpart is *Standards of Performance for Municipal Waste Combustors,* and the affected facility per 40 CFR 60.50b is "each municipal waste combustor unit".

The definition of municipal waste found at 42 USC 7429, Section 129(g)(5) is directly applicable and reads in pertinent part:

"...unit shall not be considered to be combusting municipal waste for purposes of section 111 [NSPS]...if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal waste."

Rinker will limit the input of materials classified as municipal waste to less than 30% by weight of the plant's fuel feed stream. By so doing, the referenced NSPS subpart is inapplicable.

NSPS Subpart O

This subpart is *Standards of Performance for Sewage Treatment Plants,* and the affected facility per 40 CFR 60.50b is "each incinerator that combusts...sewage sludge".

The definition of incinerator found at 40 CFR 260.10 is applicable and reads in pertinent part:

"Incinerator means any enclosed device that uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace..." [emphasis added]

This distinction is supported by the definition of industrial furnace found at 40 CFR 260.10 which reads in pertinent part:

"Industrial furnace means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:
(1) Cement kilns..." [emphasis added]

As the proposed plant is not considered an incinerator, the referenced NSPS subpart is inapplicable.

Additionally, a sewage sludge incinerator is defined at 40 CFR 503.41(k) as follows:

"Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired." [emphasis added]

As the sewage sludge would be used as an auxiliary fuel, with conventional fuels being the main fuels, this plant does not meet the definition of a sewage sludge incinerator, and the referenced subpart is inapplicable.

NESHAP Subpart E
This subpart is the *National Emission Standard for Mercury,* and the affected facility per 40 CFR 60.50b is "each incinerator that combusts...sewage sludge".

Please see the above discussion regarding the applicability of NSPS Subpart O.

As the proposed plant is not considered an incinerator, the referenced NESHAP subpart is inapplicable.

As the sewage sludge would be used as an auxiliary fuel, with conventional fuels being the main fuels, this plant does not meet the definition of a sewage sludge incinerator, and the referenced subpart is inapplicable.

II. WASTE INFORMATION

In the letter dated May 9, 1997, the DEP is requesting information on the supplemental fuels proposed for use at the plant, specifically unused diapers, paper products, non-chlorinated plastics, and sewage sludge.

Unused Diapers

- Test data or emission estimates from other cement kilns: None identified
- Source and quantity: Not yet identified
- Percentage of heat input: Limited to 40% of total heat input, and 30% by weight of fuel feed stream.
- Typical heat value, assumed as equal to plastics = 14,000 Btu/lb [ref. 1]

Unused diapers, similar to non-chlorinated plastics, are considered to be a "cleaner" fuel than coal.

Paper Products

- Test data or emission estimates from other cement kilns: None identified
- Source, type, and quantity: Not yet identified
- Percentage of heat input: Limited to 40% of total heat input, and 30% by weight of fuel feed stream.
- Typical heat value = 7200 Btu/lb [ref. 1]

Paper products are considered to be a "cleaner" fuel than coal.

Non-Chlorinated Plastics

- Test data or emission estimates from other cement kilns: None identified
- Source, type and quantity: Not yet identified
- Percentage of heat input: Limited to 40% of total heat input, and 30% by weight of fuel feed stream.
- Typical heat value = 14,000 Btu/lb [ref. 1]

Non-chlorinated plastics are considered to be a "cleaner" fuel than coal.

Sewage Sludge

- Test data or emission estimates from other cement kilns: Florida Crushed Stone, October/November 1990. Information on file with Department. No statistically significant change in emissions.
- Percentage and amount (dry basis): Not yet identified
- Percentage of heat input: Limited to 40% of total heat input.
- Typical heat value = Variable, based on moisture content. Similar to coal on a dry basis.

Sewage sludge is considered to be an equivalent or "cleaner" fuel than coal.

III. MODELING FOR HAZARDOUS AIR POLLUTANTS

Cleve Holladay (FDEP Tallahassee) requested a SCREEN model run for the hazardous air pollutants. This information is provided as Attachment 1: HAP Modeling Results, and is based on readily available AP-42 emission factors.

All modeled annual ambient concentrations are below the corresponding annual Florida Ambient Reference Concentration (FARC).

IV. NSPS COMPLIANCE DEMONSTRATION

Teresa Heron (FDEP Tallahassee) inquired as to how compliance would be demonstrated for the NSPS particulate limits for the kiln and clinker cooler, as there is a single stack. It is our contention that the limits should be additive (0.3 lb/ton of $feed_{KILN}$ + 0.1 lb/ton of $feed_{COOLER}$ = 0.4 lb/ton of feed), and that the proposed limit of 0.2 lb/ton of feed (kiln + cooler + raw mill) is more stringent.

This approach is supported by previous Department permitting, as seen in the Florida Crushed Stone permit AC27-274892, SC 15, which states in pertinent part:

"Emission testing shall be performed at the No. 2 kiln/cooler stack during a period when the No. 2 kiln, cooler, raw mill and preheater are operating simultaneously and under normal operating conditions. The measured emission rates will be the combined rates from the kiln and clinker cooler determined at the stack."

At the Rinker plant, initial compliance with the NSPS will be demonstrated by a stack test while the kiln, cooler, and raw mill are in operation. Compliance will be demonstrated if the emission rate is less than 0.4 lb/ton of dry feed.

Compliance with permit conditions will be demonstrated if the emission rate is less than 0.2 lb/ton of dry feed.

V. NOX REDUCTIONS

Rinker will reduce the proposed NOx emission rate to 4.9 lb/ton clinker. This will result in the following netting calculations using the project emissions and contemporaneous creditable emissions.

This project: 4.9 lb/ton clinker	2940 TPY
SRU project, 1992:	27.8 TPY
Portable crusher:	32.6 TPY
Shutdown old kilns:	-2988.6 TPY
TOTAL =	11.8 TPY

The above total does not include any decreases for the soil thermal treatment facility project. The existing SCREEN modeling for NOx is still applicable, albeit more conservative with this reduction.

I trust that this letter is responsive to your request. If further information is required, please do not hesitate to contact me at (352) 377-5822.

Sincerely,

Steven C. Cullen, P.E.
Koogler & Associates

copies to: Mike Vardeman -- Rinker

Attachment 1: HAP Modeling Results

REFERENCES

1. *Handbook of Incineration Systems,* Calvin R. Brunner, McGraw-Hill, 1991. Table 1.9.

CC: EPA
NPS
Dade Co
C. Holladay, BAR
T. Heron, BAR
SED

POLLUTANT NAME	SYMBOL CAS #	CONTROL	EMISSION FACTOR LB/TON CLINKER	EMISSION RATE TPY	EMISSION RATE G/S	AMBIENT CONC. ug/m³	FARC ug/m³	EXCEED?
INORGANIC POLLUTANTS:								
Silver	Ag	FF	6.1E-07	3.7E-04	1.1E-05	2.6E-06	3.0E+00	NO
Aluminum	Al	ESP	1.3E-02	7.8E+00	2.2E-01	5.6E-02	NA	NO
Arsenic	As	ESP	1.2E-05	7.2E-03	2.1E-04	5.2E-05	2.3E-04	NO
Barium	Ba	ESP	4.6E-04	2.8E-01	7.9E-03	2.0E-03	5.0E+01	NO
Beryllium	Be	FF	6.6E-07	4.0E-04	1.1E-05	2.8E-06	4.2E-04	NO
Calcium	Ca	ESP	2.4E-01	1.4E+02	4.1E+00	1.0E+00	NA	NO
Cadmium	Cd	FF	2.2E-06	1.3E-03	3.8E-05	9.5E-06	5.6E-04	NO
Chloride	Cl	FF	2.1E-03	1.3E+00	3.6E-02	9.1E-03	NA	NO
Chromium	Cr	FF	1.4E-04	8.4E-02	2.4E-03	6.0E-04	1.0E+03	NO
Copper	Cu	FF	5.3E-03	3.2E+00	9.1E-02	2.3E-02	NA	NO
Fluoride	F	ESP	9.0E-04	5.4E-01	1.6E-02	3.9E-03	5.0E+01	NO
Iron	Fe	ESP	1.7E-02	1.0E+01	2.9E-01	7.3E-02	NA	NO
Hydrogen Chloride	HCl	FF	1.4E-01	8.4E+01	2.4E+00	6.0E-01	7.0E+00	NO
Mercury	Hg	FF	2.4E-05	1.4E-02	4.1E-04	1.0E-04	3.0E-01	NO
Potassium	K	ESP	1.8E-02	1.1E+01	3.1E-01	7.8E-02	NA	NO
Manganese	Mn	ESP	8.6E-04	5.2E-01	1.5E-02	3.7E-03	5.0E-02	NO
Ammonia	NH3	FF	1.0E-02	6.0E+00	1.7E-01	4.3E-02	1.0E+02	NO
Ammonium	NH4	ESP	1.1E-01	6.6E+01	1.9E+00	4.7E-01	NA	NO
Nitrate	NO3	ESP	4.6E-03	2.8E+00	7.9E-02	2.0E-02	NA	NO
Sodium	Na	ESP	3.8E-02	2.3E+01	6.6E-01	1.6E-01	NA	NO
Lead	Pb	FF	7.5E-05	4.5E-02	1.3E-03	3.2E-04	9.0E-02	NO
Sulfur Trioxide	SO3	FF	1.4E-02	8.4E+00	2.4E-01	6.0E-02	NA	NO
Sulfate	SO4	FF	7.2E-03	4.3E+00	1.2E-01	3.1E-02	NA	NO
Selenium	Se	FF	2.0E-04	1.2E-01	3.5E-03	8.6E-04	NA	NO
Thallium	Th	FF	5.4E-06	3.2E-03	9.3E-05	2.3E-05	5.0E-01	NO
Titanium	Ti	ESP	3.7E-04	2.2E-01	6.4E-03	1.6E-03	NA	NO
Zinc	Zn	FF	3.4E-04	2.0E-01	5.9E-03	1.5E-03	NA	NO
ORGANIC POLLUTANTS:								
C3 Benzenes		ESP	2.6E-06	1.6E-03	4.5E-05	1.1E-05	1.2E-01	NO
C4 Benzenes		ESP	6.0E-06	3.6E-03	1.0E-04	2.6E-05	1.2E-01	NO
C8 Benzenes		ESP	9.2E-07	5.5E-04	1.6E-05	4.0E-06	1.2E-01	NO
Acenapthylene	208-96-8	FF	1.2E-04	7.2E-02	2.1E-03	5.2E-04	NA	NO
Acetone	67-64-1	ESP	3.7E-04	2.2E-01	6.4E-03	1.6E-03	NA	NO
Benzaldehyde	100-52-7	ESP	2.4E-05	1.4E-02	4.1E-04	1.0E-04	NA	NO
Benzene	71-43-2	FF	1.6E-02	9.6E+00	2.8E-01	6.9E-02	1.2E-01	NO
Benzo(a)anthracene		FF	4.3E-08	2.6E-05	7.4E-07	1.9E-07	1.1E-03	NO
Benzo(a)pyrene	50-32-8	FF	1.3E-07	7.8E-05	2.2E-06	5.6E-07	3.0E-04	NO
Benzo(b)fluoranthene	205-99-2	FF	5.6E-07	3.4E-04	9.7E-06	2.4E-06	NA	NO
Benzo(g,h,i)perylene	191-24-2	FF	7.8E-08	4.7E-05	1.3E-06	3.4E-07	NA	NO
Benzo(k)fluoranthene	207-08-9	FF	1.5E-07	9.0E-05	2.6E-06	6.5E-07	NA	NO
Benzoic Acid	65-85-0	ESP	3.5E-03	2.1E+00	6.0E-02	1.5E-02	NA	NO
Biphenyl	95-52-4	ESP	6.1E-06	3.7E-03	1.1E-04	2.6E-05	NA	NO
Bis(2-ethylhexyl)phthalate	117-81-7	ESP	9.5E-05	5.7E-02	1.6E-03	4.1E-04	4.2E+00	NO
Bromomethane	74-83-9	ESP	4.3E-05	2.6E-02	7.4E-04	1.9E-04	5.0E+00	NO
Carbon Disulfide	75-15-0	ESP	1.1E-04	6.6E-02	1.9E-03	4.7E-04	2.0E+02	NO
Chlorobenzene	108-90-7	ESP	1.6E-05	9.6E-03	2.8E-04	6.9E-05	NA	NO
Chloromethane	74-87-3	ESP	3.8E-04	2.3E-01	6.6E-03	1.6E-03	2.8E-01	NO
Chrysene	218-01-9	FF	1.6E-07	9.6E-05	2.8E-06	6.9E-07	NA	NO
Di-n-butylphthalate	84-74-2	ESP	4.1E-05	2.5E-02	7.1E-04	1.8E-04	1.0E+02	NO
Dibenz(a,h)anthracene	53-70-3	FF	6.3E-07	3.8E-04	1.1E-05	2.7E-06	7.1E-05	NO
Ethylbenzene	101-41-4	ESP	1.9E-05	1.1E-02	3.3E-04	8.2E-05	1.0E+03	NO
Fluoranthene	206-44-0	FF	8.8E-06	5.3E-03	1.5E-04	3.8E-05	NA	NO
Fluorene	86-73-7	FF	1.9E-05	1.1E-02	3.3E-04	8.2E-05	NA	NO
Formaldehyde	50-00-0	FF	4.6E-04	2.8E-01	7.9E-03	2.0E-03	7.7E-02	NO
Freon 113		ESP	5.0E-05	3.0E-02	8.6E-04	2.2E-04	NA	NO
Indeno(1,2,3-cd)pyrene	193-39-5	FF	8.7E-08	5.2E-05	1.5E-06	3.8E-07	NA	NO
Methyl Ethyl Ketone	78-93-3	ESP	3.0E-05	1.8E-02	5.2E-04	1.3E-04	1.0E+03	NO
Methylene Chloride	75-09-2	ESP	4.9E-04	2.9E-01	8.5E-03	2.1E-03	2.0E+00	NO
Methynaphthalene		ESP	4.2E-06	2.5E-03	7.3E-05	1.8E-05	NA	NO
Naphthalene	91-20-3	FF	1.7E-03	1.0E+00	2.9E-02	7.3E-03	NA	NO
Phenanthrene	85-01-8	FF	3.9E-04	2.3E-01	6.7E-03	1.7E-03	NA	NO
Phenol	108-95-2	ESP	1.1E-04	6.6E-02	1.9E-03	4.7E-04	3.0E+01	NO
Pyrene	129-00-0	FF	4.4E-06	2.6E-03	7.6E-05	1.9E-05	NA	NO
Styrene	100-42-5	ESP	1.5E-06	9.0E-04	2.6E-05	6.5E-06	1.0E+03	NO
Toluene	108-88-3	ESP	1.9E-04	1.1E-01	3.3E-03	8.2E-04	4.0E+02	NO
Total HpCDD		FF	3.9E-10	2.3E-07	6.7E-09	1.7E-09	NA	NO
Total OCDD	3268-87-9	FF	2.0E-09	1.2E-06	3.5E-08	8.6E-09	NA	NO
Total PCDD		FF	2.7E-09	1.6E-06	4.7E-08	1.2E-08	NA	NO
Total PCDF	132-64-9	FF	2.9E-10	1.7E-07	5.0E-09	1.3E-09	NA	NO
Total TCDF	132-64-9	FF	2.9E-10	1.7E-07	5.0E-09	1.3E-09	NA	NO
Xylenes	1330-20-7	ESP	1.3E-04	7.8E-02	2.2E-03	5.6E-04	8.0E+01	NO

05/19/97
10:16:06

*** SCREEN2 MODEL RUN ***
*** VERSION DATED 95121 ***

RINKER HAP RUN, EMISSION RATE = 0.2 G/S

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.200000
STACK HEIGHT (M)	=	65.0000
STK INSIDE DIAM (M)	=	2.4400
STK EXIT VELOCITY (M/S)	=	27.2513
STK GAS EXIT TEMP (K)	=	363.0000
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	.0000
MIN HORIZ BLDG DIM (M)	=	.0000
MAX HORIZ BLDG DIM (M)	=	.0000

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 270000.00 (ACFM)

BUOY. FLUX = 76.700 M**4/S**3; MOM. FLUX = 892.188 M**4/S**2.

*** FULL METEOROLOGY ***

ANEMOMETER HEIGHT IS: 10.0 METERS

****
*** SCREEN AUTOMATED DISTANCES ***
****

BRODE OPTION 2 WAS EXERCISED. RESULTS ARE ASSUMED TO
BE MORE CONSERVATIVE WITH RESPECT TO ISCST2 RESULTS.

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.1	529.2	523.98	7.00	6.99	NO
100.	.2542E-10	5	1.0	1.9	10000.0	166.51	22.58	22.02	NO
200.	.5146E-05	5	1.0	1.9	10000.0	166.51	31.25	29.67	NO
300.	.1250E-02	1	3.0	3.4	300.0	217.99	76.14	53.84	NO
400.	.4730E-01	1	3.0	3.4	300.0	217.99	97.70	77.56	NO
500.	.2071	1	3.0	3.4	300.0	217.99	118.56	110.60	NO
600.	.4453	1	2.0	2.3	300.4	294.49	146.04	165.44	NO
700.	.6106	1	2.0	2.3	300.4	294.49	165.82	223.18	NO
800.	.6223	1	2.0	2.3	300.4	294.49	183.51	290.50	NO
900.	.5828	1	1.5	1.7	376.6	370.99	209.32	373.51	NO
1000.	.5470	1	1.5	1.7	376.6	370.99	226.28	462.19	NO
1100.	.5094	1	1.5	1.7	376.6	370.99	243.25	562.14	NO
1200.	.4762	1	1.5	1.7	376.6	370.99	260.19	673.29	NO
1300.	.4501	1	1.0	1.1	529.2	523.98	293.82	801.63	NO
1400.	.4269	1	1.0	1.1	529.2	523.98	309.76	934.39	NO
1500.	.4060	1	1.0	1.1	529.2	523.98	325.72	1078.60	NO
1600.	.3919	2	3.0	3.4	231.1	217.99	238.43	188.19	NO

1700.	.3826	2	3.0	3.4	231.1	217.99	251.21	200.46	NO
1800.	.3757	2	2.5	2.8	261.0	248.59	265.50	214.80	NO
1900.	.3676	2	2.5	2.8	261.0	248.59	278.07	227.16	NO
2000.	.3577	2	2.5	2.8	261.0	248.59	290.57	239.63	NO
2100.	.3498	2	2.0	2.3	306.3	294.49	305.56	255.24	NO
2200.	.3431	2	2.0	2.3	306.3	294.49	317.85	267.75	NO
2300.	.3352	2	2.0	2.3	306.3	294.49	330.08	280.34	NO
2400.	.3266	2	2.0	2.3	306.3	294.49	342.27	293.02	NO
2500.	.3177	2	2.0	2.3	306.3	294.49	354.42	305.79	NO
2600.	.3120	3	3.5	4.2	208.8	188.98	247.76	150.74	NO
2700.	.3100	3	3.5	4.2	208.8	188.98	256.17	155.74	NO
2800.	.3071	3	3.5	4.2	208.8	188.98	264.55	160.74	NO
2900.	.3039	3	3.0	3.6	228.5	209.64	273.74	167.10	NO
3000.	.3019	3	3.0	3.6	228.5	209.64	282.05	172.04	NO
3500.	.2859	3	2.5	3.0	256.5	238.57	324.37	198.59	NO
4000.	.2696	3	2.5	3.0	256.5	238.57	364.85	222.86	NO
4500.	.2552	3	2.0	2.4	298.9	281.96	406.56	249.80	NO
5000.	.2404	3	2.0	2.4	298.9	281.96	445.97	273.58	NO
5500.	.2261	3	1.5	1.8	370.2	354.28	488.06	302.26	NO
6000.	.2164	3	1.5	1.8	370.2	354.28	526.51	325.49	NO
6500.	.2058	3	1.5	1.8	370.2	354.28	564.65	348.68	NO
7000.	.1951	3	1.5	1.8	370.2	354.28	602.51	371.80	NO
7500.	.1848	3	1.5	1.8	370.2	354.28	640.08	394.85	NO
8000.	.1761	3	1.0	1.2	513.9	498.92	683.68	427.94	NO
8500.	.1707	3	1.0	1.2	513.9	498.92	720.42	450.34	NO
9000.	.1649	3	1.0	1.2	513.9	498.92	756.96	472.72	NO
9500.	.1590	3	1.0	1.2	513.9	498.92	793.30	495.07	NO
10000.	.1532	3	1.0	1.2	513.9	498.92	829.45	517.40	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

757.	.6297	1	2.0	2.3	300.4	294.49	176.08	260.85	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	.6297	757.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

ANNUAL = 0.08 x 0.6297 = 0.05 ug/m^3

POLLUTANT NAME	SYMBOL	CONTROL	EMISSION FACTOR	EMISSION RATE	EMISSION RATE	AMBIENT CONC.	FARC	EXCEED?
	CAS #		LB/TON CLINKER	TPY	G/S	ug/m^3	ug/m^3	
INORGANIC POLLUTANTS:								
Silver	Ag	FF	6.1E-07	3.7E-04	1.1E-05	2.6E-06	3.0E+00	NO
Aluminum	Al	ESP	1.3E-02	7.8E+00	2.2E-01	5.6E-02	NA	NO
Arsenic	As	ESP	1.2E-05	7.2E-03	2.1E-04	5.2E-05	2.3E-04	NO
Banum	Ba	ESP	4.6E-04	2.8E-01	7.9E-03	2.0E-03	5.0E+01	NO
Beryllium	Be	FF	6.6E-07	4.0E-04	1.1E-05	2.8E-06	4.2E-04	NO
Calcium	Ca	ESP	2.4E-01	1.4E+02	4.1E+00	1.0E+00	NA	NO
Cadmium	Cd	FF	2.2E-06	1.3E-03	3.8E-05	9.5E-06	5.6E-04	NO
Chloride	Cl	FF	2.1E-03	1.3E+00	3.6E-02	9.1E-03	NA	NO
Chromium	Cr	FF	1.4E-04	8.4E-02	2.4E-03	6.0E-04	1.0E+03	NO
Copper	Cu	FF	5.3E-03	3.2E+00	9.1E-02	2.3E-02	NA	NO
Fluonde	F	ESP	9.0E-04	5.4E-01	1.6E-02	3.9E-03	5.0E+01	NO
Iron	Fe	ESP	1.7E-02	1.0E+01	2.9E-01	7.3E-02	NA	NO
Hydrogen Chloride	HCl	FF	1.4E-01	8.4E+01	2.4E+00	6.0E-01	7.0E+00	NO
Mercury	Hg	FF	2.4E-05	1.4E-02	4.1E-04	1.0E-04	3.0E-01	NO
Potassium	K	ESP	1.8E-02	1.1E+01	3.1E-01	7.8E-02	NA	NO
Manganese	Mn	ESP	8.6E-04	5.2E-01	1.5E-02	3.7E-03	5.0E-02	NO
Ammonia	NH3	FF	1.0E-02	6.0E+00	1.7E-01	4.3E-02	1.0E+02	NO
Ammonium	NH4	ESP	1.1E-01	6.6E+01	1.9E+00	4.7E-01	NA	NO
Nitrate	NO3	ESP	4.6E-03	2.8E+00	7.9E-02	2.0E-02	NA	NO
Sodium	Na	ESP	3.8E-02	2.3E+01	6.6E-01	1.6E-01	NA	NO
Lead	Pb	FF	7.5E-05	4.5E-02	1.3E-03	3.2E-04	9.0E-02	NO
Sulfur Tnoxide	SO3	FF	1.4E-02	8.4E+00	2.4E-01	6.0E-02	NA	NO
Sulfate	SO4	FF	7.2E-03	4.3E+00	1.2E-01	3.1E-02	NA	NO
Selenium	Se	FF	2.0E-04	1.2E-01	3.5E-03	8.6E-04	NA	NO
Thallium	Th	FF	5.4E-06	3.2E-03	9.3E-05	2.3E-05	5.0E-01	NO
Titanium	Ti	ESP	3.7E-04	2.2E-01	6.4E-03	1.6E-03	NA	NO
Zinc	Zn	FF	3.4E-04	2.0E-01	5.9E-03	1.5E-03	NA	NO
ORGANIC POLLUTANTS:								
C3 Benzenes		ESP	2.6E-06	1.6E-03	4.5E-05	1.1E-05	1.2E-01	NO
C4 Benzenes		ESP	6.0E-06	3.6E-03	1.0E-04	2.6E-05	1.2E-01	NO
C6 Benzenes		ESP	9.2E-07	5.5E-04	1.6E-05	4.0E-06	1.2E-01	NO
Acenapthylene	208-96-8	FF	1.2E-04	7.2E-02	2.1E-03	5.2E-04	NA	NO
Acetone	67-64-1	ESP	3.7E-04	2.2E-01	6.4E-03	1.6E-03	NA	NO
Benzaldehyde	100-52-7	ESP	2.4E-05	1.4E-02	4.1E-04	1.0E-04	NA	NO
Benzene	71-43-2	FF	1.6E-02	9.6E+00	2.8E-01	6.9E-02	1.2E-01	NO
Benzo(a)anthracene		FF	4.3E-08	2.6E-05	7.4E-07	1.9E-07	1.1E-03	NO
Benzo(a)pyrene	50-32-8	FF	1.3E-07	7.8E-05	2.2E-06	5.6E-07	3.0E-04	NO
Benzo(b)fluoranthene	205-99-2	FF	5.6E-07	3.4E-04	9.7E-06	2.4E-06	NA	NO
Benzo(g,h,i)perylene	191-24-2	FF	7.8E-08	4.7E-05	1.3E-06	3.4E-07	NA	NO
Benzo(k)fluoranthene	207-08-9	FF	1.5E-07	9.0E-05	2.6E-06	6.5E-07	NA	NO
Benzoic Acid	65-85-0	ESP	3.5E-03	2.1E+00	6.0E-02	1.5E-02	NA	NO
Biphenyl	95-52-4	ESP	6.1E-06	3.7E-03	1.1E-04	2.6E-05	NA	NO
Bis(2-ethylhexyl)phthalate	117-81-7	ESP	9.5E-05	5.7E-02	1.6E-03	4.1E-04	4.2E+00	NO
Bromomethane	74-83-9	ESP	4.3E-05	2.6E-02	7.4E-04	1.9E-04	5.0E+00	NO
Carbon Disulfide	75-15-0	ESP	1.1E-04	6.6E-02	1.9E-03	4.7E-04	2.0E+02	NO
Chlorobenzene	108-90-7	ESP	1.6E-05	9.6E-03	2.8E-04	6.9E-05	NA	NO
Chloromethane	74-87-3	ESP	3.8E-04	2.3E-01	6.6E-03	1.6E-03	2.8E-01	NO
Chrysene	218-01-9	FF	1.6E-07	9.6E-05	2.8E-06	6.9E-07	NA	NO
Di-n-butylphthalate	84-74-2	ESP	4.1E-05	2.5E-02	7.1E-04	1.8E-04	1.0E+02	NO
Dibenz(a,h)anthracene	53-70-3	FF	6.3E-07	3.8E-04	1.1E-05	2.7E-06	7.1E-05	NO
Ethylbenzene	101-41-4	ESP	1.9E-05	1.1E-02	3.3E-04	8.2E-05	1.0E+03	NO
Fluoranthene	206-44-0	FF	8.8E-06	5.3E-03	1.5E-04	3.8E-05	NA	NO
Fluorene	86-73-7	FF	1.9E-05	1.1E-02	3.3E-04	8.2E-05	NA	NO
Formaldehyde	50-00-0	FF	4.6E-04	2.8E-01	7.9E-03	2.0E-03	7.7E-02	NO
Freon 113		ESP	5.0E-05	3.0E-02	8.6E-04	2.2E-04	NA	NO
Indeno(1,2,3-cd)pyrene	193-39-5	FF	8.7E-08	5.2E-05	1.5E-06	3.8E-07	NA	NO
Methyl Ethyl Ketone	78-93-3	ESP	3.0E-05	1.8E-02	5.2E-04	1.3E-04	1.0E+03	NO
Methylene Chlonde	75-09-2	ESP	4.9E-04	2.9E-01	8.5E-03	2.1E-03	2.0E+00	NO
Methynaphthalene		ESP	4.2E-06	2.5E-03	7.3E-05	1.8E-05	NA	NO
Naphthalene	91-20-3	FF	1.7E-03	1.0E+00	2.9E-02	7.3E-03	NA	NO
Phenanthrene	85-01-8	FF	3.9E-04	2.3E-01	6.7E-03	1.7E-03	NA	NO
Phenol	108-95-2	ESP	1.1E-04	6 6E-02	1.9E-03	4.7E-04	3.0E+01	NO
Pyrene	129-00-0	FF	4.4E-06	2.6E-03	7.6E-05	1.9E-05	NA	NO
Styrene	100-42-5	ESP	1.5E-06	9.0E-04	2.6E-05	6.5E-06	1.0E+03	NO
Toluene	108-88-3	ESP	1.9E-04	1.1E-01	3.3E-03	8.2E-04	4.0E+02	NO
Total HpCDD		FF	3.9E-10	2.3E-07	6.7E-09	1.7E-09	NA	NO
Total OCDD	3268-87-9	FF	2.0E-09	1.2E-06	3.5E-08	8.6E-09	NA	NO
Total PCDD		FF	2.7E-09	1.6E-06	4.7E-08	1.2E-08	NA	NO
Total PCDF	132-64-9	FF	2.9E-10	1.7E-07	5.0E-09	1.3E-09	NA	NO
Total TCDF	132-64-9	FF	2.9E-10	1.7E-07	5.0E-09	1.3E-09	NA	NO
Xylenes	1330-20-7	ESP	1.3E-04	7.8E-02	2.2E-03	5.6E-04	8.0E+01	NO

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 9, 1997

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: Rinker Materials Corporation, Miami Cement Facility
File No. 0250014-002-AC

Dear Mr. Jenkins:

The Department received your application on December 4, 1996 for the modernization of the existing cement facility in Miami. Based on a review of your response to question 12 of our letter dated December 31, 1996 and subsequent telephone conversations between Mr. Steve Cullen and Ms. Teresa Heron, we are in need of clarification on the proposed burning of solid waste materials.

Pursuant to Rules 62-4.070 (3), F.A.C., please provide reasonable assurance that the burning of solid waste - unused diapers, paper products, non-chlorinated plastic waste, and sewage sludge from publicly owned treatment works (POTW) will not contravene Department rules. Based on the information provided, it appears the project may be subject to 40 CFR 60, Subparts O and Eb as well as 40 CFR 61, Subpart E.

Based on our records (e.g. AO13-172954) it appears that these wastes were not permitted before. Please submit the following information , including all assumptions, reference materials and calculations:

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

Measures to control objectionable odors during the storage and handling of this material?We are continuing to process the application while awaiting response on the solid waste matters. If you have any questions regarding this matter, please call Teresa Heron (Review Engineer) or Cleve Holladay (Meteorologist) at (904) 488-1344.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/th/t

cc: John Koogler, PE
Brian Beals, EPA
John Bunyak, NPS
Ewart L. Anderson, DERM
Isidore Goldman, SED

Fold at line over top of envelope to the right of the return address

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
Rinker Materials Corp
1200 NW 137th Ave
Miami, Fl 33182

4a. Article Number P 265 659 214

4b. Service Type

☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery 05-15-97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*

X R. Zaragoza

PS Form **3811**, December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 265 659 214

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to James Jenkins	
Street & Number Rinker Mat.	
Post Office, State, & ZIP Code Miami, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
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 5/9/97	

0250014-002-AC

PS Form **3800**, April 1995