

EXHIBIT E

Florida Department of Environmental Regulation  
STATIONARY SOIL THERMAL TREATMENT FACILITY  
INSPECTION REPORT

Name of Facility RINKER MATERIALS CORP.  
Location 1200 NW. 137<sup>th</sup> AVE, MIAMI, FL 33182  
General Permit No. SO 13-195017 Date of Inspection 2/22/93  
Contact Person DAVE MARPLE  
Person Completing Report LEE MARTIN/PEGGY HIGHSIMITH

Instructions: Complete the appropriate spaces for each item listed below. Use comments space to provide additional information for each item. Additional paper may be used if necessary.

Yes No SITE SURVEY

- \_\_\_\_ 1. Does information provided on general permit notice of intent form coincide with actual facility?
- \_\_\_\_ 2. Is soil sampling procedure correct?
- \_\_\_\_ 3. Are monitoring wells properly installed (proper number and location)?
- \_\_\_\_ 4. Are monitor wells being properly sampled and analysed for required parameters?
- \_\_\_\_ 5. Is untreated soil stockpiled separately from treated soil and properly identified?
- \_\_\_\_ 6. Is untreated soil adequately covered by roofing?
- \_\_\_\_ 7. Do floors for storage appear to be properly constructed and in good condition?
- \_\_\_\_ 8. Are floors properly bermed to provide runoff control?
- \_\_\_\_ 9. Is a leachate collection system provided?

Yes No REPORTING FORMS

- \_\_\_\_ 10. Are untreated soil reporting forms being properly completed? starting date 10/26/92 end date 1/22/93
- \_\_\_\_ 11. Are treated soil reporting forms being properly completed? starting date 10/26/92 end date 2/7/93

12. Indicate frequency clean soil criteria is being met?
- 60 % TRPH - 10 mg/kg, or
  - 40 % TRPH - 50 mg/kg, PAH - 6 mg/kg, and VOA - 50 ug/kg
13. Indicate ranges and approximate median values of untreated soil analyses for the following parameters.
- TRPH BDL mg/kg to 88,700 mg/kg, median 3807 mg/kg
  - VOA BDL mg/kg to 348000 mg/kg, median 3541 mg/kg
  - Arsenic BDL mg/kg to 9.5 mg/kg
  - Barium BDL mg/kg to 1120 mg/kg
  - Cadmium BDL mg/kg to 78.7 mg/kg \*
  - Chromium BDL mg/kg to 84 mg/kg \*\*
  - Lead BDL mg/kg to 96.35 mg/kg
  - Mercury BDL mg/kg to .54 mg/kg
  - Selenium BDL mg/kg to 11.7 mg/kg
  - Silver BDL mg/kg to 5.5 mg/kg
14. Indicate ranges and approximate median values of treated soil analyses for the following parameters.
- TRPH 3.7 mg/kg to 30.2 mg/kg, median 9.7 mg/kg
  - VOA BDL mg/kg to BDL mg/kg, median BDL mg/kg
  - Arsenic BDL mg/kg to 3.1 mg/kg
  - Barium 17 mg/kg to 48.8 mg/kg
  - Cadmium BDL mg/kg to BDL mg/kg
  - Chromium BDL mg/kg to 17.0 mg/kg
  - Lead BDL mg/kg to 7.8 mg/kg
  - Mercury BDL mg/kg to BDL mg/kg
  - Selenium BDL mg/kg to BDL mg/kg
  - Silver BDL mg/kg to 3.3 mg/kg
  - \_\_\_\_\_ mg/kg to \_\_\_\_\_ mg/kg
  - \_\_\_\_\_ mg/kg to \_\_\_\_\_ mg/kg

Comments:

\* = THIS REPRESENTS ONE LOAD REC'D (12.19 TONS) BEFORE THE NEW RULE BECAME EFFECTIVE; HOWEVER, IT EXCEEDS BOTH OLD AND NEW CRITERIA. FOLLOW-UP INDICATES

\*\* = THIS REPRESENTS ONE OF FOUR BATCHES FROM A SINGLE SITE. THE OTHERS WERE RECEIVED BEFORE THE RULE CHANGE AND WERE BELOW THE OLD CRITERIA. THE LAST BATCH (~10BTNS) WAS MIXED WITH OTHER UNTREATED SOILS.

William L. Martin  
Signature

\_\_\_\_\_  
Date



# Florida Department of Environmental Regulation

**Southeast District** • P.O. Box 15425 • West Palm Beach, Florida 33416  
Lawton Chiles, Governor 1900 S. Congress Ave., Suite A Virginia B. Wetherell, Secretary  
Telephone: 407/433-2650  
Fax: 407/433-2666

## SOIL THERMAL TREATMENT FACILITY INSPECTION REPORT

1. TYPE INSPECTION: COMPLAINT  ROUTINE FOLLOW-UP PERMITTING

2. FACILITY NAME Rinker Portland Cement Corp.

DER/EPA ID FLD981758485 GMS ID \_\_\_\_\_

3. ADDRESS 1200 NW 137th Ave, Miami, Fl, 33182  
Mailing: P.O. Box 24635, West Palm Beach, Fl 33416-4635

COUNTY Dade PHONE 305- 221-7645 DATE 2/22/93 TIME 10:45

4. TYPE OF FACILITY Thermal Soil Treatment Facility

5. DESCRIPTION OF OPERATION:

Facility Operations include limerock mining and contaminated soil processing to produce cement.

Rinker uses kilns fired by coal, natural gas, or used oil in production.

6. APPL. REGULATIONS: 17-2, F.A.C.  17-775, F.A.C.

7. RESPONSIBLE OFFICIAL: (Name and Title)

James Jenkins, Vice President

8. SURVEY PARTICIPANTS AND PRINCIPAL INSPECTOR:

William Lee Martin and Peggy Highsmith, FDER

Dave Marple, Rinker Materials

9. FACILITY LATITUDE 25°46'48" LONGITUDE 80°25'10"

10. TYPE OWNERSHIP: FEDERAL STATE COUNTY MUNICIPAL PRIVATE

11. NOTICE NO: SO13-195017 DATE ISSUED: 4/17/91 EXP. DATE: 4/4/96

Rev 1/8/92

Rinker Portland Cement Corp.

FLD 981758485

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A routine inspection was conducted at the Rinker Portland Cement Corporation's soil thermal treatment facility regulated pursuant to Chapter 17-775, Florida Administrative Code. This facility operates a rotary kiln and utilizes the petroleum contaminated soil in the manufacture of cement.

#### BACKGROUND INFORMATION:

Rinker was issued a General Permit #SO13-195017 to operate a soil thermal treatment facility on April 17, 1991 which expires on April 4, 1996. The Rinker facility was operating as an existing facility as defined in 17-775.200, FAC prior to the effective date of this rule. A complete process description is provided in the Rinker permit application; however, the process was reviewed at the inspection as follows:

According to Dave Marple, prior to accepting any soil for thermal treatment pursuant to 17-775, FAC, Rinker requires a soil analysis profile. Based on this profile, and concurrence from Metro Dade Department of Resource Management (DERM), soils are brought by truck to the new soil storage facility. All materials accepted by Rinker still receive approval from DERM in the form of a standardized form letter. This is required as a condition of the facility's current Dade County permits but may change in the future due to the increased administrative workload experienced by the County. The recent change to 17-775 has not been adopted by DERM at this time; therefore, for the metals criteria for clean soil Rinker uses the lowest value between the old and new criteria in order to satisfy both agencies in the interim. At the time of the inspection the new soil storage facility is in use and the old temporary soil storage facility has been approved for closure. Contaminated soils have been removed from the perimeter of the old facility concrete slab with soil sampling for confirmation and groundwater sampling has been performed using the four wells around the slab for two consecutive quarters with no indication of contamination. Rinker claims to accept no hazardous wastes as defined in 40 CFR Part 261.

Rinker has operated a materials substitution program for the last four years. This program researches and evaluates different alternative materials for use as raw materials in the production of cement or for use as an alternative fuel source in the kilns. Two alternative materials currently in use include the substitution of fuel contaminated soils for clean silica sand and the substitution of "on-spec" waste oil for fuel oil in kiln burners. Other alternative material substitutions under discussion and/or evaluation for possible future use include: (1) substitution of oily waste water for part of the slurry makeup water, (2) burning tires for fuel, (3) replacing FP&L slag with other power plant ashes such as ash from MSW incinerators, and (4) blending oily sludges with contaminated soils. Rinker has received approval for a trial burn using old tires as a fuel and iron supplement. The tires are injected whole, two at a time, through a patented system during each rotation of the kiln. The point of injection is approximately midway along the kiln where the temperature is approximately 1800 ° F. Several trial burns have been completed with satisfactory results. Dave Marple estimates the kiln could burn as many as 4,000,000 tires per year.

Additionally, the afterburner system for the petroleum contaminated soils is in operation, although the soils process through a preliminary kiln and afterburner first, then go through the cement kiln. Preliminary in house analysis of the soils, although not required, indicate the soils meet clean soil criteria before they are processed through the cement kiln.

#### SOIL STORAGE FACILITY:

Incoming soils to be thermally treated by Rinker arrive by independent contractors via truck to the new soil storage facility. Rinker does not handle drums or containers; therefore, in the event a contractor delivers contaminated soils in drums or containers the contractor is responsible for emptying and removing the drums and/or containers from the facility. The new facility located

Rinker Portland Cement Corp.

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South of the railroad tracks became operational February 9, 1992 and consists of a 100' by 300' monolith concrete slab sealed to solid concrete walls on three sides with a concrete curb across the front. The facility has an open front to accommodate trucks and equipment, enclosed sides, and a roof. The floor slopes to the southeast corner where a sump and holding tank are located to collect any contaminated water from wind blown rain seeping through the contaminated soils. Minimal water has been collected to date. No standing water was observed around the perimeter on the Northeast corner of the facility on this visit. An additional interior concrete curb, with water a stop, sloping away from the Northeast front wall toward the interior of the facility has been installed. The previous standing water outside exhibited an algae growth, mosquito larvae, and a slight sheen but a water sample taken and analyzed in Rinker's lab indicated no volatiles present. This should be watched in the future. The points along the outside wall approximately two feet off the floor previously discharging small quantities of water around previously plugged holes appear to have subsided. The small quantities, the presence of iron staining, and the absence of any odor or sheen indicate this may be internal condensation draining. This should be watched in the future and investigated if it increases. The four groundwater wells off the corners of the facility have flush mounted, secured manhole lids. The wells appear to be located on ground high enough to prevent flooding; however, the presence of watertight, lockable well caps could not be confirmed.

The improved screening capability and metal removal by magnetic methods remain in operation. The metal and plastics removed from the soils are collected for transport to the County landfill. The larger concrete debris screened out initially are taken to the rock crusher to be pulverized separately and mixed back in with the contaminated soils at the soil storage facility. Repairs due to damage attributed to Hurricane Andrew appeared complete. Skylight sections had been replaced, the metal wall fascade panels and the roof gutters had been repaired or replaced. Dave Marple indicated they are considering a relocation of the leachate tank from inside the building to outside the building in a secondary containment and would be forwarding a proposal to the Department for approval.

#### RECORDKEEPING:

Rinker has received a Department alternative procedure approval (File No. AP-STTF001) for testing of contaminated soils. Rinker relies solely on the test results supplied by other labs; however, Rinker requires acknowledgment of a Department approved Quality Assurance plan from the labs supplying the data. Rinker performs spot checks of some samples. Random review of records over the past several months indicated one untreated soil batch (#278-92045), received 11/13/92, exceeded the old cadmium clean soil criteria; however, follow-up indicates this was a misprint and all soils were below both the old and new cadmium criteria. Laboratory results were provided which confirmed this was a misprint and soils were received below the appropriate criteria. One other exceedance involved chromium; however, the batch (#305-92003), received 12/8/92, was the last of four batches received from a single site. The other three batches were received within the week before the rule change and were below the old criteria. Batch #305-92003, approx. 108 tons, was mixed with other untreated soils. No treated soils analyzed since the last visit through February 7, 1993 exceeded the metals, VOA, or TRPH criteria for clean soil in 17-775, FAC.

#### SUMMARY:

The new soil storage facility incorporates "state of the art" technology in handling and storing petroleum contaminated soil and significantly enhances Rinker's capability to process contaminated soils in an environmentally sound manner.

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HANDEX OF FLORIDA, INC., 1001 Broken Sound Parkway N. W., Suite C, Boca Raton, Florida 33487  
(407) 995-9551 Fax: (407) 995-9830

February 12, 1993

Mr. Vivek Kamath, P.E.  
Florida Dept. Environmental Regulation  
Southeast District  
1900 S. Congress Ave, Suite A  
West Palm Beach, FL 33406

Re: Results of sampling for cadmium, Rinker Materials Corp., 1200  
NW 137th Avenue, Miami, Florida.

Dear Mr. Kamath:

This letter addresses the request of the FDER (in a letter of January 28, 1993) for Rinker Portland Materials Corp. to "delineate the extent of the cadmium concentrations" (prepare a contamination assessment), regarding the occurrence of cadmium in a groundwater sample at the referenced location. As consultants for Rinker, we have sampled the well previously showing cadmium and offer the results for your consideration.

As background, the monitor well (MW-7) that showed 0.012 ppm, cadmium (from a sampling event of October 22, 1992), had not previously shown any detectable concentrations of cadmium during seven quarterly sampling events. The detection limit for those analyses was 0.005 ppm.

On February 3, 1993, Handex sampled MW-7 and split the sample; one part was filtered in the field as the sample contained some noticeable turbidity, and the second part was not filtered. Both samples were sent to VOC Analytical Laboratories, Inc., for analysis by EPA Method 213.2. The results of both analyses were the same - no concentration of cadmium greater than 0.005 ppm (the detection limit) was detected. The results of the analyses and chain of custody documentation are shown in Attachment A.

With the results as cited, we consider the FDER's request for assessment to be satisfied. Also, we request that you provide written confirmation to Mr. James Jenkins of Rinker Materials Corp., that an assessment is no longer needed.

As per the Groundwater Monitoring Plan, we will continue to sample monitor wells for cadmium and other chemical parameters of concern. Please call should you have any question regarding the above.

Sincerely,  
HANDEX OF FLORIDA, INC.

  
Donald C. Johnson, P.G.  
Site Manager

cc: Mr. Michael Vardeman, Rinker

K:\HOME\WP\SHARE\LETTERS\MD08.CEM

A SUBSURFACE RECOVERY COMPANY

**ATTACHMENT A**



CLIENT # 18

ADDRESS: RINKER MATERIALS  
PO BOX 650679  
MIAMI, FL 33165

ATTN: MIKE VARDEMAN

SAMPLE DESCRIPTION: RINKER MATERIALS  
CEM 105132-01  
RINKER CEMENT MILL, MTA  
GROUNDWATER ANALYSISPAGE: 2  
DATE: 02-10-1993  
LOG #: 4133-4LABEL: CEM-7C3  
DATE SAMPLED: 02/03/93  
DATE RECEIVED: 02/03/93  
COLLECTED BY: CLIENT

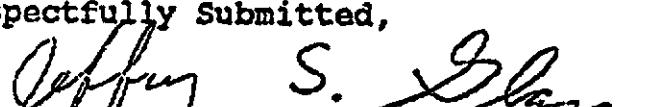
Parameter	Result	Units	Method	Detection Limit	Extr. Date	Anal. Date	Analyst
Dissolved Arsenic	BDL	mg/l	206.3	0.010	02/04/93	02/09/93	JK
Dissolved Barium	BDL	mg/l	208.2	0.1	02/04/93	02/05/93	JK
Dissolved Cadmium	BDL	mg/l	213.2	0.005	02/04/93	02/05/93	JK
Dissolved Chromium	BDL	mg/l	218.2	0.005	02/04/93	02/05/93	JK
Dissolved Mercury	BDL	mg/l	245.1	0.001	02/04/93	02/08/93	JK
Dissolved Lead	BDL	mg/l	239.2	0.005	02/04/93	02/04/93	JK
Dissolved Selenium	BDL	mg/l	270.3	0.01	02/04/93	02/05/93	JK

\* BDL = Below Detection Limits

All analyses were performed using EPA, ASTM, USGS, or Standard Methods

QAP # 90-0376G  
HRS # E86240, 86356  
SUB HRS# 86122, 86109, E86048  
ADEM ID# 40720

Respectfully Submitted,

  
 Jeffrey S. Glass LK  
 Laboratory Director

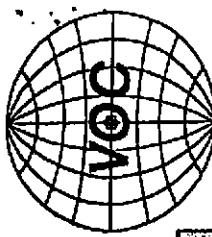
4133-4



**VOC** ANALYTICAL LABORATORIES, INC.  
877 N.W. 61 Street, Suite 202  
Ft. Lauderdale, FL 33309  
(305) 938-8823

**CHAIN OF CUSTODY RECORD**

log # 4133



ANALYTICAL

Project Name or Number		Project Location		Sample Description (CHECK ONE)		Comments		Preservative Type	
CEM 105132-01		RINKER CEMENT Mill Miami							
HANDE-X OFF FLA.		Item Number	Sample Label	Date	Time	Ground Water	Soil	Specimen	
12	CEM- 27C	2-3- 93	1510	X					
TOTAL METALS									
Will a Common Carrier be used? Yes _____ No _____		Person Responsible for Sample <u>GREG SOUZA</u>		Assigned Number 1		Name DAG		Date 23/03 9:30	
Remarks				2					
				3					
				4					