Department of Environmental Protection

Lawton Chiles
Governor

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

Virginia B. Wetherell
Secretary

SEP 2 4 1998

Mr. James S. Jenkins, III
Rinker Materials Corporation
P.O. Box 24635
West Palm Beach, FL 33416

Dear Mr. Jenkins,

The attached Soil Thermal Treatment Facility Inspection Report documents a routine inspection of your facility (1200 NW 137th Avenue, Miami, FL, by the Department on September 14, 1998) for compliance with Chapter 62-775, Florida Administrative Code (F.A.C.). As noted on the attached inspection report, the ground water monitoring well located near the northwest corner of the Material Screening Building was not locked during our inspection. Please note that all of the monitoring wells need to be kept secured and in good condition. Additionally, Rinker should maintain receipts for the proper disposal of metal and plastics that are removed from the soils for transport to the county landfill. Thank you for your continued cooperation.

If you have any questions or need further information, please contact Jorge R. Patino at 561-681-6726.

Sincerely,

Paul Alan Wierzbicki, P.G.
Waste Cleanup Supervisor

PAW/jrp

attch: STTF Inspection Report conducted 09/14/1998

cc: Paul Lasa, DERM, Miami
Tom Conrardy, DEP/BWC, Tallahassee
Zoe Kulakowski, DEP/BWC, Tallahassee
Jeff Smith, DEP/WPB
Don Emery, Rinker Materials, Miami
West Palm Beach File

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SOIL THERMAL TREATMENT FACILITY INSPECTION REPORT

1. **TYPE INSPECTION:** __ COMPLAINT _X_ ROUTINE ___ FOLLOW-UP ___ PERMITTING

2. **FACILITY NAME** Rinker Portland Cement Corp.

   DER/EPA ID FLD981758485 **COMET SITE ID** 69992

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** 09/14/98 **TIME** 10:30AM

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:** _____ 62-2, F.A.C. _X_ 62-775, F.A.C.

7. **RESPONSIBLE OFFICIAL:** (Name and Title)
James Jenkins, Vice President

8. **SURVEY PARTICIPANTS AND PRINCIPAL INSPECTOR:**

Lee Martin and Jorge Patino, FDEP
Don Emery, Rinker Materials

9. **FACILITY LATITUDE** 25°46'57" conf. **LONGITUDE** 80°25'20" conf. 8/93

10. **TYPE OWNERSHIP:** FEDERAL STATE COUNTY MUNICIPAL PRIVATE

11. **NOTICE NO:** SO13-290034 **DATE ISSUED:** 6/28/96 **EXP. DATE:** 6/7/2001
SO13-300512 6/4/98 6/4/2002

Rev 8/18/94

A routine inspection was conducted at the Rinker Portland Cement Corporation's soil thermal treatment facility regulated pursuant to Chapter 62-775, Florida Administrative Code (FAC) and Chapter 62-701, F.A.C. This facility operates a rotary kiln and utilizes the petroleum contaminated soil and coal tar contaminated soil in the manufacture of cement.

BACKGROUND INFORMATION:

Rinker was issued a General Permit #SO13-290034 to operate a soil thermal treatment facility on June 28, 1996 which expires on June 7, 2001. The Rinker facility was operating as an existing facility as defined in 62-775.200, FAC prior to the effective date of this rule. Additionally, the facility treats coal tar contaminated soil pursuant to Solid Waste Material Recovery Facility Permit #SO13-300512 issued June 4, 1997 which expires on June 4, 2002. A complete process description is provided in the Rinker permit application; however, the process was reviewed at the inspection as follows:

According to Don Emery, prior to accepting any soil for thermal treatment pursuant to 62-775, FAC, Rinker requires a soil analysis profile. Based on this profile, and specific conditions from DEP and Metro Dade Department of Environmental Resources Management (DERM), soils are brought by truck to the soil storage facility. DERM has granted approval authority to Rinker, subject to specific conditions in their DERM solid waste permit. Rinker claims to accept no hazardous wastes as defined in 40 CFR Part 261. Mr. Emery recently replaced David Marple as the contact person for this facility.

Rinker has operated a materials substitution program since 1991. 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, (4) using spent petroleum catalyst as an aluminum source, (5) blending oily sludges with contaminated soils, and (6) using other petroleum contaminated material.

Rinker has received approval for burning 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 ^{o} F. Additionally, the tires reportedly are packed with petroleum contaminated booms, diapers, absorbent material, jet fuel filters, etc.; however, operational problems with lowering of temperatures has suspended continuous burning but some batch burning is still performed.
Rinker has received a determination that the use of spent petroleum catalyst as an aluminum source is not regulated under 62-775, F.A.C.; however, the characteristics provided would make storage on the bare ground inappropriate. Several loads (10-12) of spent catalyst from a Hess operation in Puerto Rico were received in the past, but handling problems due to the extremely dusty nature of the material has delayed subsequent shipments while a pneumatic off-loading and handling system is being investigated.
Rinker has applied for and received a Solid Waste Material Recovery Facility Permit No. SO13-300512 which allows Rinker to accept and treat certain coal tar contaminated soils. Rinker accepted coal tar contaminated soils from mid June-mid August 1997 and revised the treated soil reporting form to reflect the coal tar parameters.
Rinker has applied for an alternative procedure to allow processing of certain petroleum related sludges/residues along with petroleum contaminated soil. This request is under review by the Bureau of Waste Cleanup.

The afterburner system for the petroleum contaminated soils is in operation. Petroleum contaminated soils pass through a preliminary kiln (stone dryer) with 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 from independent contractors via truck, are weighed, and taken to the Material Screening Building for processing. Rinker has changed their policy concerning drum handling due to the increase in drill cuttings received in drums and the subsequent bottle neck caused in the off loading area. The drums are placed in the northwest corner of the Material Screening Building and emptied as time permits. (During this inspection, all drums observed were located inside the building. The number of drums appeared to have doubled since the previous inspection.) Once emptied, drums are rinsed at the drum washing area and either crushed (if damaged) for salvage or sent to an outside drum facility. The rinse water is contained and used on site in slurry production, the sediments are returned to the soil storage facility. The current facility located South of the railroad tracks became operational February 9, 1992 and consists of an approximate 100-foot by 300-foot 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 is located to collect any contaminated water from wind blown rain seeping through the contaminated soils. The leachate collection tank has been relocated outside the Southeast corner of the facility. The tank is within a secondary containment structure and piping outside the facility is double-walled. An additional interior concrete curb sloping away from the Northeast front wall toward the interior of the facility had been installed. An additional stem wall has been constructed along the Northeast front wall and rain gutters have been redirected after investigation following the December 1996 inspection. This will continue to be checked in the future. The four groundwater wells near the corners of the facility have flush mounted manhole lids. The monitor well near the Northwest corner of the building was capped, but not locked.

The metal and plastics removed from the soils are collected for transport to the County landfill. Rinker should maintain receipts for proper disposal. 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. Spent oil filters are drummed at the soil storage facility and processed for recycling to Cliff Berry, Inc. A covered dumpster has been located in the Northeast corner of the soil storage building to allow collection of oily wastes/sludges which are mixed with the fuel oil and burned in the kiln.

RECORD KEEPING:

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 reportedly performs spot checks of some samples. Rinker also performs groundwater analyses through their in-house laboratory, under a Department approved Quality Assurance Plan, for their Groundwater Monitoring Plan. (Detection limits must be comparable with applicable groundwater standards.) A review of records for untreated soil for June 1998 indicated some batches of untreated soils were received which exceeded the clean soil criteria for metals; however, spot checks on some of these batches were made, and blending records were provided as required by 62-775.400(4), FAC, which confirms blended soils comply with total metals standards. Rinker began treating low level PCB contaminated soils in April 1994 and developed a form to tracking the source, soil PCB content, quantity, PCB concentration, pounds PCB treated, and cumulative year to date PCB treated. Appropriate reporting forms for untreated PCB contaminated

soils were submitted for this inspection period. Rinker began treating coal tar contaminated soils in mid-June 1997 and developed a form to track the required analytical data for the treated soils. No treated soils analyzed for this quarter exceeded the VOA or TRPH criteria for clean soil in 62-775, FAC.

SUMMARY:

The soil storage facility provides for proper handling and storage of petroleum contaminated soils, low level PCB contaminated soils, and coal tar contaminated soils and allows Rinker to process contaminated soils in an environmentally sound manner. No visual signs of discharge were noted and all facility personnel were very cooperative.

EXHIBIT E

Florida Department of Environmental Regulation

STATIONARY SOIL THERMAL TREATMENT FACILITY

INSPECTION REPORT

Name of Facility Rinker Materials

Location 1200 NW 137th Ave, Miami, FL 33182

General Permit No. SO13-290034 Date of Inspection 9/14/98

Contact Person Don Emery

Person Completing Report Jorge L. Patino

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 untreatd 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 6-1-98 end date 6-30-98
✓		11.	Are treated soil reporting forms being properly completed? starting date 5-4-98 end date 8-2-98

12. Indicate frequency clean soil criteria is being met?
    a. 100 % TRPH - 10 mg/kg, or
    b. — % TRPH - 50 mg/kg, PAH - 6 mg/kg, and VOH - 50 ug/kg

13. Indicate ranges and approximate median values of untreated soil analyses for the following parameters.
    a. TRPH 3 mg/kg to 200,000 mg/kg, median 2800 mg/kg
    b. VOA BDL mg/kg to 106,000 mg/kg, median 1 mg/kg
    c. Arsenic BDL mg/kg to 59 mg/kg
    d. Barium BDL mg/kg to 1720 mg/kg
    e. Cadmium BDL mg/kg to 13.2 mg/kg
    f. Chromium BDL mg/kg to 64.33 mg/kg
    g. Lead BDL mg/kg to 842 mg/kg
    h. Mercury BDL mg/kg to 13.2 mg/kg
    i. Selenium BDL mg/kg to 2.4 mg/kg
    j. Silver BDL mg/kg to 7.3 mg/kg

14. Indicate ranges and approximate median values of treated soil analyses for the following parameters.
    a. TRPH BDL mg/kg to BDL mg/kg, median — mg/kg
    b. VOA BDL mg/kg to BDL mg/kg, median — mg/kg
    c. Arsenic BDL mg/kg to 7.65 mg/kg
    d. Barium 206 mg/kg to 782 mg/kg
    e. Cadmium BDL mg/kg to 3 mg/kg
    f. Chromium 1.71 mg/kg to 102 mg/kg
    g. Lead 1.65 mg/kg to 32 mg/kg
    h. Mercury BDL mg/kg to BDL mg/kg
    i. Selenium BDL mg/kg to 3.72 mg/kg
    j. Silver BDL mg/kg to 5 mg/kg
    k. _____ _____ mg/kg to _____ mg/kg
    i. _____ _____ mg/kg to _____ mg/kg

Comments: * GW data is submitted directly to Tallahassee. No GW data was reviewed during the inspection

Jorge R. Patino
Signature

9/17/98
Date

Rinker Materials
September 1998 Inspection
Statistical Analysis of Untreated Soil Data for June 1998

VOA	TRPH			VOA	TRPH
1	4,300		Mean	3,227	13,275
1	25,000		Std error		
1	827		Median	1	2,800
1	53,000		Mode	1	2,100
1	6,100		Std Deviation	15,818	30,069
836	9,245		Sample Variance	250,195,361	904,147,917
1	2,100		Kurtosis	37	29
1	1,823		Skewness	6	5
1	50		Range	106,000	199,997
836	9,372		Minimum	1	3
4	130		Maximum	106,000	200,000
560	43,200		Sum	171,047	703,565
1	12,650		Count	53	53
1	34,000		Confidence Level		
1	13,000				
1	1,450				
8,833	21,000				
799	38,688				
106,000	200,000				
1	20,000				
1	100				
16	25				
1	4,000				
1	2,800				
47,200	3				
1	1,300				
1	1,440				
1	3,130				
1	68				
1	10,000				
4,128	10				
1	63				
1	3,800				
1	41,000				
250	122				
1	7				
298	201				
1	1,900				
1	3,200				
109	5,600				
49	32,000				
1	2,300				
258	61,900				
1	6,036				
1	618				
1	2,100				
836	12,460				
1	1,354				
1	1,634				
1	1,300				
1	5				
1	7,150				
1	5				