



# Department of Environmental Protection

Jeb Bush  
Governor

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

David B. Struhs  
Secretary

JUL 19 1999

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 at 1200 NW 137th Avenue, Miami, FL, by the Department on June 3, 1999. During this inspection, as noted on the attached inspection report, a review of the previous quarterly groundwater monitoring results indicated groundwater violations identified in April 1999 were not confirmed after confirmation sampling on May 5, 1999. Additionally, a replacement monitor well has been installed on the Northwest corner of the soil storage building, please submit a copy of the well completion report to this office.

In anticipation of the upcoming changeover in the cement manufacturing process (wet process to dry process), several areas of the current permits may require modification in order to remain current. It appears the facility layout, handling and processing of materials, handling of drum wash area wastewater, and management of leachate from the soil storage building are some of the areas which may need to be addressed. To determine whether or not permitting changes are necessary and ensure timely processing, please contact Robert Johns/MDERM regarding permit no. SO13-300512 and this office regarding permit no. SO13-290034 as soon as possible. In addition, the original alternate procedure (AP-STTF001) needs to be reviewed for continued applicability. Thank you for your continued cooperation.

If you have any questions or need further information, please contact Lee Martin at 561-681-6676.

Sincerely,

Paul Alan Wierzbicki, P.G.  
Waste Cleanup Supervisor

atch: STTF Inspection dated 6/3/99

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

STTF JUL 20 PM 2:23

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SUPERVISOR OF PERMITS  
STC  
PETROLEUM CLEANUP SECTION 3  
JUL 20 PM 2:23

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  
 General Permit No. SO 13-290034 Date of Inspection 6/3/99  
 Contact Person DON EMERY  
 Person Completing Report LEE MARTIN

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)? REPLACED NW WELL AT 55B
- 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 4/1/99 end date 4/29/99
- 11. Are treated soil reporting forms being properly completed? starting date 12/28/98 end date 5/2/99

12. Indicate frequency clean soil criteria is being met?
- 95 % TRPH - 10 mg/kg, or
  - 5 % 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.
- TRPH 1 mg/kg to 430000 mg/kg, median 609 mg/kg
  - VOA .1 mg/kg to 45600 mg/kg, median .1 mg/kg
  - Arsenic BDL mg/kg to 42.5 mg/kg
  - Barium BDL mg/kg to 1760 mg/kg
  - Cadmium BDL mg/kg to 27.9 mg/kg
  - Chromium 1 mg/kg to 172 mg/kg
  - Lead BDL mg/kg to 280 mg/kg
  - Mercury BDL mg/kg to .75 mg/kg
  - Selenium BDL mg/kg to 36 mg/kg
  - Silver BDL mg/kg to 6.5 mg/kg
14. Indicate ranges and approximate median values of treated soil analyses for the following parameters.
- TRPH BDL mg/kg to 47 mg/kg, median BDL mg/kg
  - VOA BDL mg/kg to 2.9 mg/kg, median BDL mg/kg
  - Arsenic 2.5 mg/kg to 9.8 mg/kg
  - Barium 178 mg/kg to 1770 mg/kg
  - Cadmium BDL mg/kg to 4.1 mg/kg
  - Chromium 48 mg/kg to 104 mg/kg
  - Lead 3.7 mg/kg to 31.9 mg/kg
  - Mercury BDL mg/kg to BDL mg/kg
  - Selenium BDL mg/kg to 12.4 mg/kg
  - Silver BDL mg/kg to 6.9 mg/kg
  - \_\_\_\_\_ mg/kg to \_\_\_\_\_ mg/kg
  - \_\_\_\_\_ mg/kg to \_\_\_\_\_ mg/kg

Comments: One sample in Item #12 above appears to have been contaminated in lab confirmation sampling the next weekly sample was less than clean soil criteria. Clinber leachability results exceeded the groundwater criteria in several samples; however, the material is not sold as clean soil but processed into concrete.

\* Some groundwater samples collected April 2, 1999 identified PAH's in some wells; however, confirmation samples collected May 5, 1999 were BDL.

William L Martin  
Signature

7/2/99  
Date



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## 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 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 6/3/99 TIME 10:00 am

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.  62-775, F.A.C.

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

8. **SURVEY PARTICIPANTS AND PRINCIPAL INSPECTORS:**  
Lee Martin, 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

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

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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, FAC. 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 under a 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.

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 ° F. Additionally, the tires 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. According to Mr. Emery, during this inspection period Rinker only treated 10-15 drums of coal tar contaminated soils the last week of April 1999.

Rinker has applied for an alternative procedure to allow processing of certain petroleum related sludges/residues along with petroleum contaminated soil. This request has been approved under Alternate Procedure No. AP-STTF0036 with certain restrictions.

The afterburner system for the petroleum contaminated soils is in operation, the soils process 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 by independent contractors via truck, are weighed, and taken to the Material Screening Building (MSB) 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 MSB and emptied as time permits and during this inspection all drums observed were located inside the building (two of the drums containing petroleum contaminated material were labeled "used oil filters"; however, further investigation revealed they contained absorbent material and PPE and were mislabeled). Once emptied the drums are then rinsed at the drum washing area and crushed for salvage. The rinse water is contained and used on site in slurry production, the sediments are returned to the soil storage facility. The MSB located 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 MSB 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 MSB. 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 MSB 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 off the corners of the MSB have flush mounted manhole lids. The locking cap on the monitor well at the Southwest corner of the MSB has been replaced since the last inspection. Additionally, the monitor well off the Northwest corner of the MSB has been replaced; therefore, a monitor well completion report needs to be submitted to the Department.

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 MSB. Spent oil filters are drummed and stored separately at the MSB and processed for recycling to Cliff Berry, Inc. A covered dumpster has been located in the Northeast corner of the MSB to allow collection of oily wastes/sludges which are mixed with the fuel oil and burned in the kiln.

## 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. Rinker also performs groundwater analyses through their in-house laboratory, under a Department approved Quality Assurance Plan, for their Groundwater Monitoring Plan. A review of analytical data indicates elevated detection limits are being reported for some parameters, such as Benzene. Detection limits need to be revised to be comparable with applicable groundwater standards. The March 1999 Groundwater Monitoring Report (GMR) indicated groundwater violations of some parameters; however, follow up confirmation sampling on May 5, 1999, did not confirm any of the violations, all results reported below detection limit or less than the groundwater standard. A review of records for untreated soil for April 1999 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, a small quantity of coal tar contaminated soils were processed the last week of April 1999. One sample of treated soils analyzed for this inspection period exceeded the VOA/TRPH criteria for clean soil in 62-775, FAC; however, this was attributed to laboratory contamination and the following sample did not exceed the VOA/TRPH criteria. A review of treated soil (clinker) forms for TCLP analyses indicates the results from five samples for Cadmium, five

samples for Lead, and eight samples for Chromium exceed the respective groundwater standard; however, all this material is stabilized in concrete rather than disposed of as clean soil.

**SUMMARY:**

The MSB 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 other signs of discharge were noted and all facility personnel were very cooperative.