



Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone: 407/433-2650
Fax: 407/433-2666

Carol M. Browner, Secretary

APR - 8 1992

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 3/27/92 TIME 10:00

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 Carol Meeds, 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

An unannounced 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. At the time of the inspection the new soil storage facility is in use and the old temporary soil storage facility is being prepared for closure. 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.

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 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. No water has been collected to date. The ample ventilation provided and the fact the soils are not classed as flammable when delivered precluded the need for a sprinkler system for the facility according to Dave Marple. The facility was dry, no standing water was present, and no outward evidence of leachate or runoff was observed. Four new groundwater wells have been installed off the corners of the facility. All 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.

improved screening capability has been installed with a proposed modification to add metal removal by magnetic methods in progress. 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.

TEMPORARY SOIL STORAGE FACILITY

Operations ceased at the temporary facility when the new facility went into operation. All soils and equipment were relocated to the new facility. Excavation of soils on the outside of the concrete berms was observed during the inspection, with these soils being transported to the new storage facility for processing as contaminated soils. The canvas/vinyl overhang was also being dismantled for removal. Once excavation of soils are completed around the perimeter of the concrete slab, soil sampling and analysis will be performed to confirm no petroleum contaminated soils remain. The four monitor wells around the concrete slab will be sampled for the next two quarters beginning with the April sampling event. After the second sampling is complete, the results and a proposal to abandon the wells and deactivate the site will be forwarded to FDER and DERM for consideration.

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 three loads of untreated soils were received on 12/11/91, 12/12/91, and 2/18/92 respectively which exceeded the clean soil criteria for lead of 77 mg/kg. These soils were blended with other contaminated soils. Additionally, during the weeks of Feb 3-9 and Feb 10-16 the TRPH criteria of 50 mg/kg for treated soils were exceeded; however, the PAH and VOH were BDL. During these two consecutive weeks, 316 tons and 284 tons of treated soil were used to produce 10,887 and 11,815 tons of cement respectively.

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. According to the facility records, the facility appears to have exceeded the clean soil criteria under Chapter 17-775.400(3), FAC and their approved alternate procedures for the weeks of February 3-9 and February 10-16. This warrants further investigation.

EXHIBIT E

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

Name of Facility RINKER / MIAMI
Location 1200 NW 137th AVE, MIAMI, FL
General Permit No. SO 13-195017 Date of Inspection 3/27/92
Contact Person DAVE MARPLE
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?
NEW FACILITY IN OPERATION, NEED UPDATED SITE PLAN
 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 11/26/91 end date 2/2/92
 11. Are treated soil reporting forms being properly completed? starting date 12/2/91 end date 3/1/92

7m

12. Indicate frequency clean soil criteria is being met?
- 46 % TRPH - 10 mg/kg, or
 - ~~92~~ % 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 BDL mg/kg to 438317 mg/kg, median 8397 mg/kg
 - VOA BDL mg/kg to 59686 mg/kg, median 3778 mg/kg
 - Arsenic BDL mg/kg to 27.1 mg/kg
 - Barium BDL mg/kg to 740 mg/kg
 - Cadmium BDL mg/kg to 55 mg/kg
 - Chromium BDL mg/kg to 68 mg/kg
 - Lead BDL mg/kg to 281 mg/kg 3 loads, all remaining < 77 mg/kg
 - Mercury BDL mg/kg to .415 mg/kg
 - Selenium BDL mg/kg to 24 mg/kg
 - Silver BDL mg/kg to 70.97 mg/kg
14. Indicate ranges and approximate median values of treated soil analyses for the following parameters.
- TRPH BDL mg/kg to 124 mg/kg, median 19.6 mg/kg
 - VOA BDL mg/kg to BDL mg/kg, median BDL mg/kg
 - Arsenic BDL mg/kg to 11.0 mg/kg
 - Barium 20 mg/kg to 630 mg/kg
 - Cadmium BDL mg/kg to 1.5 mg/kg
 - Chromium 1.2 mg/kg to 32 mg/kg
 - Lead BDL mg/kg to 16.1 mg/kg
 - Mercury BDL mg/kg to .9 mg/kg
 - Selenium BDL mg/kg to BDL mg/kg
 - Silver BDL mg/kg to 5.1 mg/kg
 - _____ mg/kg to _____ mg/kg
 - _____ mg/kg to _____ mg/kg

Comments: (12) On two occasions the clean soil criteria exceeded the 50 mg/kg for TRPH; however the PAH and VOH were BDL for these batches. During these two consecutive weeks, 31^{1/2} tons and 284 tons of treated soil were used to produce 10,887 tons and 10,815 tons of cement respectively. All TCLP metals were less than criteria.
(13) On three occasions lead in untreated soils exceeded clean soil criteria. This was blended with other contaminated soils.

William L. Martin

4/3/92

Florida Department of Environmental Regulation
Soil Thermal Treatment Facility
Treated Soil Reporting Form

Name of Facility: Parker Materials Corp
 Air Permit No.: A012-17229354
 Soil Treatment Permit No.: 2013-125017
 Stationary: X or Mobile Facility:

Start +

Month: 09 Year: 91

Sample Number / Sample #
 Day Soil Batch ID#

Day No.	Length of Run, Hours	Amount, Volume or Weight cy/tm	Analytical Results												ICP Metals												Totals Prod	
			Total Metals												ICP Metals													
			As	Ba	Cd	Cr	Pb	Hg	Se	Ag	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	VOC	RPH	PAH	VOC	RPH	PAH				
9/04-	42	168	1479	1.6	304	0.0	27	4.3	0.0	801	3.5	801	1.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	8194		
9-23	42	168	1484	1.6	160	0.0	32	4.1	0.0	804	3.2	804	1	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	81065		
1-29	42	168	1255	2.0	344	0.0	32	3.8	0	801	5.1	801	3.5	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	80292		
10-0	42	168	1283	3.1	472	0.0	28	16.1	804	804	4.7	804	3.9	804	2.9	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	81293		
10-13	42	168	1907	802	119	0.0	1.2	2.3	801	801	2.4	801	2.5	801	2.5	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81334		
10-14	42	168	2346	801	153	0.0	4.0	166	801	801	3.3	801	2.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81455		
10-20	42	168	1358	802	321	0.0	3.0	801	801	801	4.3	801	4.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81584		
10-21	42	168	1395	802	217	0.0	2.0	801	801	801	3.2	801	3.2	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81625		
10-22	42	168	2091	801	630	0.0	5.1	2.3	801	801	4.7	801	3.5	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81684		
10-23	42	168	1665	2.3	270	0.0	28	166	1.2	804	3.8	804	2.2	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	81723		
11-1	42	168	1461	801	280	0.0	19	1.8	804	804	4.7	804	3.0	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	81792		
11-2	42	168	1471	801	236	0.0	2.2	804	804	2.4	804	3.7	804	3.7	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	804	0.0	81823	
11-3	42	168	8557	1.7	356	0.0	21	801	801	4.1	801	2.8	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81853	
11-4	42	168	788	801	320	0.0	3	801	801	4.3	801	0.0	3.3	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81893		
11-5	42	168	895	801	281	0.0	12	801	801	801	4.3	801	0.0	2.4	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81936	
11-6	42	168	1161	801	801	0.0	4.1	801	801	801	4.1	801	2.4	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81979		
11-7	42	168	1137	BDL	240	0.0	1.5	801	801	801	1.9	801	3.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81985		
11-8	42	168	341	BDL	270	0.0	1.3	801	801	801	1.3	801	0.5	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	81997		
11-9	42	168	398	1.3	320	1.2	9.5	3.4	9	801	2.8	801	0.7	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	82029		
11-10	42	168	398	1.6	8	0.0	5.4	9.5	3.4	9	801	2.8	801	0.7	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	801	0.0	82029	

See reverse side for instructions

**Soil Thermal Treatment Facility
Treated Soil Reporting Form**

Name of Facility: _____
 Air Permit No.: _____
 Soil Treatment Permit No.: _____
 Stationary: _____ or Mobile Facility: _____

Month: _____ Year: _____

Day of Soil Batch No.	Sample ID#	Length of Run, Hours	Amount, Volume or Weight cy/tn	Analytical Results												Totals			
				Total Metals												TCLP Metals			
As	Ba	Cd	Cr	Pb	Hg	Se	Ag	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	VDA	RPH	PAH	VOM
2-3	42	168	314	504	25.0	0.02	3.0	504	0.02	504	0.02	504	0.02	504	0.02	504	0.02	504	0.02
2-9	42	168	284	311	31.0	1.2	12.0	3.5	0.04	504	1.7	504	0.4	504	0.24	504	0.02	504	0.02
2-10	42	168	1158	6.5	38.0	1.1	13.0	3.5	0.01	804	1.6	504	0.5	504	0.01	504	0.01	504	0.01
2-14	42	168	1158	28.0	31.0	1.1	13.0	3.5	0.01	804	1.6	504	0.5	504	0.01	504	0.01	504	0.01
2-17	42	168	1158	28.0	31.0	1.1	13.0	3.5	0.01	804	1.6	504	0.5	504	0.01	504	0.01	504	0.01
2-21	42	168	1158	28.0	31.0	1.1	13.0	3.5	0.01	804	1.6	504	0.5	504	0.01	504	0.01	504	0.01
2-24	42	168	925	31	36.0	1.4	15.0	4.1	0.04	804	2.0	504	0.5	504	.51	504	0.04	504	0.04
3-1	42	168	1110	11.0	37.0	1.5	16.0	4.6	0.01	604	3.2	604	1.6	604	.11	604	0.01	604	0.01
3-2	42	168	1213	4.5	20	1.1	11.0	3.3	0.01	804	1.8	504	0.4	504	.23	504	0.01	504	0.01
3-8	42	168	1213	4.5	20	1.1	11.0	3.3	0.01	804	1.8	504	0.4	504	.23	504	0.01	504	0.01
3-9	42	168	1213	4.5	20	1.1	11.0	3.3	0.01	804	1.8	504	0.4	504	.23	504	0.01	504	0.01
3-13	42	168	1213	4.5	20	1.1	11.0	3.3	0.01	804	1.8	504	0.4	504	.23	504	0.01	504	0.01

**Florida Department of Environment - Key Largo
Soil Thermal Treatment -ility
Untreated Soil Report. form**

Name of Facility: _____
Air Permit No.: _____
Soil Treatment Permit No.: _____
Stationary or Mobile Facility: _____

Month: _____ Year: _____

1	2	3	4	5	6	7	8							
				Analytical Results										
Day of Mo.	Soil Batch No.	Sample Number	Amount, Volume or Weight cy/tn	Metals								Totals	RPH	Attach Lab Results Only
				As	Ba	Cd	Pb	Hg	Se	Ag	VCA			
2/19	187.06	1	34.93	<.10	<.10	<.10	3.4	20.7	<.1	<.1	<.1	4100	110	
2/21	153.08	1	55.87	BOL	5.0	BOL	2.8	BOL	BOL	BOL	BOL	1200	41	
2/21	153.07	1	17.88	BOL	4.7	BOL	1.4	BOL	BOL	BOL	BOL	5600	393	
2/21	187.05	1	16.61	1.2	5.2	BOL	1.3	1.7	BOL	BOL	BOL	30	13	
2/21	187.04	1	16.01	BOL	3.8	BOL	4.4	7.2	.02	BOL	BOL	BOL	BOL	
2/21	187.03	1	10.01	1.1	3.2	BOL	5.8	3.5	.033	BOL	BOL	BOL	8.2	
2/21	187.02	1	10.01	BOL	4.7	BOL	1.1	3.6	BOL	BOL	BOL	30	9.8	
2/21	187.01	1	10.01	BOL	5.4	BOL	2.4	19	BOL	BOL	BOL	2.4	15500	14

Untreated Soil Report. Form

Name of Facility: _____
 Air Permit No.: _____
 Soil Treatment Permit No.: _____
 Stationary _____ or Mobile Facility: _____

Month: _____ Year: _____

Day of Batch No.	Soil Batch ID#	Sample Number	Amount Volume or Weight cy/in	Analytical Results								Totals	Indicate Other Analyses	Attach Lab Results Only
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag	VDA		
2/13	11.52	1	52.59	27.1	5.12	.089	7.82	31.1	.0350	<.01	24	.391		71
2/13	110105	2	54.24	<12	<4.40	55	2.65	5.45	<.01	<.05	<.57	BDL	5140	
2/13	110103	3	70.39	BDL	22.5	1.03	6.36	13.17	<.01	BDL	8DL	9100	433.317	
2/14	116103	3	49.76	BDL	22.5	1.03	6.36	13.17	1	BDL	BDL	9400	4383.17	
2/17	110103	3	13.44	BDL	22.5	1.03	6.36	13.17	<.01	BDL	BDL	9600	4383.17	
2/13	21.7.01	3	427.68	1.11	65.47	BDL	14.6	33.7	.081	BDL	BDL	23	30.86	
2/12	21.7.01	3	14.00	1.11	65.47	BDL	14.9	33.7	.091	BDL	BDL	23	30.86	
2/14	2165.01	1	97.08	1.5	16.4	BDL	3.0	1.2	BDL	BDL	BDL	550	13300	
2/18	2165.01	1	14.45	1.5	16.4	BDL	3.0	1.2	BDL	BDL	BDL	550	13300	
2/14	2169.01	1	27.80	1.9	25.0	BDL	3.0	35.0	BDL	BDL	BDL	399		
2/14	111.98	1	10.92	.216	<1	1.66	5.27	27.5	0.0001	2.41	BDL	2.1		
2/17	110.110	6	249.04	<1	<1.75	<.5	<1.0	7.42	<.03	<1	<1	5148	61.16	
2/18	105.110	6	726.48	<1	<1.15	<.5	<1.0	7.42	<.03	<1	<1	5648	61.16	
2/19	106.110	7	331.88	<1	<1.75	<.5	<1.0	7.42	<.03	<1	<1	5648	61.16	
2/18	259.02	1	24.98	BDL	1.7	BDL	4.2	14.5	BDL	BDL	BDL	11.23	13.8	
2/18	106.104	1	19.35	16.6	12.3	2.72	22.9	281	.22	<.4	1.76	BDL	6090	
2/18	106.106	1	62.16	BDL	2.5	BDL	5.6	2.1	BDL	BDL	BDL	170		
2/19	234.04	1	11.05	BDL	500	BDL	3.6	2.2	BDL	BDL	4.9	44	939	
2/19	111.99	1	15.12	.149	<.01	2.36	5.38	21.4	.0445	.0359	3.54		66.8	

Florida Department of Environmental Regulation
Soil Thermal Treatment Facility
Untreated Soil Report...# Form

Name of Facility: _____
Air Permit No.: _____
Soil Treatment Permit No.: _____
Stationary _____ or Mobile Facility: _____

Month: 1 Year: 92

Day of Month	Soil Batch ID#	Sample Number	Amount, Volume or weight cu/in	Analytical Results								Totals	Indicate Other Analyses	Attach Lab Results Only	
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag	VOC			
1/15	111-82	1	19.03	.9P	<1	3.43	10	24.1	.03%	.034	3.05	<1	57	42.3	0
1/15	120-07	1	96.45	1.04	123	602	55.3	1.7	80L	80L	80L	18350	1075	1,0018	
1/16	120-02	5	99.86	11.98	8.92	4.83	3.64	5.24	<.03	<1	<1	1/370	9530	1,0002	
1/17	120-02	5	99.94	11.98	8.92	4.53	3.64	5.24	<.03	<1	<1	1/370	9930	1,0002	
1/20	120-02	5	144.66	11.98	8.42	4.53	3.64	5.24	<.03	<1	<1	1/370	9630	1,0002	
1/21	120-02	5	143.62	11.98	8.42	4.53	3.64	5.24	<.03	<1	<1	1/370	9930	1,0202	
1/22	120-02	5	143.56	11.98	8.42	4.53	3.64	5.24	<.03	<1	<1	1/370	9930	1,0002	
1/23	120-02	5	143.24	11.98	8.42	4.53	3.64	5.24	<.03	<1	<1	1/370	9930	1,0002	
1/24	120-02	5	143.46	11.98	8.42	4.53	3.64	5.24	<.03	<1	<1	1/370	9930	1,0002	
1/25	264-01	1	74.90	.72	80L	2.2	80L	10.4	611	1.22	80L	80L	5-L	0	
1/26	106-98	1	1.66	1.87	44.8	3.2	68	64.4	0.93	<1	<1	68L	10185	0	
1/27	240-02	1	43.44	1.09	57.9	8.94	5.24	18.4	1.001	.0029	1.94	12652	340	1,0001	
1/28	240-02	1	21.10	10.9	57.9	8.94	5.24	18.4	1.001	.0029	1.94	12652	340	1,0001	
1/29	121-01	3	216.88	1604	26.3	0.04	1.7	12.7	1304	0.04	0.04	423.7	1195	1,0001	
1/30	122-01	3	115.82	1602	26.3	0.04	1.7	12.7	1644	0.04	0.04	423.7	1195	0	
1/31	122-04	3	130.13	1601	26.3	0.04	1.7	17.7	1312	0.04	0.04	423.7	1195	0	
1/32	114-07	1	15.31	60L	2.0	0.04	1.1	80L	80L	80L	80L	80L	20	0	
1/33	222-05	1	53.89	1604	33	60L	3.6	80L	80L	80L	80L	80L	247.9	0	
1/34	121-02	1	38.30	1604	2	60L	2	1304	1604	60L	8700	5350	1,0003		
1/35	121-02	1	60.51	60L	2	60L	2	80L	1604	80L	8700	5350	1,0005		

See reverse side for instructions

Untreated Soil Report Form

Name of Facility: Pulken Materials Corp.

Air Permit No.: _____

Soil Treatment Permit No.: _____
Stationary or Mobile Facility: Month: 1 Year: 92

1 2 3 4 5 6 7 8

Day of Batch No.	Soil ID#	Sample Number	Amount, Volume or Weight cy/ton	Analytical Results							Totals	Indicate Other Analyses	Attach Lab Results Only	
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag			
1/9	256-03	3	2.527	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<1.7	<1.6	BAL	33.55	0
1/9	256-03	3	2.3.63	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<1.4	<1.6	BAL	33.55	0
1/10	256-03	3	12.47	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<4	<1.6	BAL	33.55	0
1/11	256-03	3	12.92	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<4	<1.6	BAL	33.55	0
1/12	256-03	3	12.92	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<4	<1.6	BAL	33.55	0
1/13	256-03	3	12.92	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<4	<1.6	BAL	33.55	0
1/14	256-03	3	26.83	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<4	<1.6	BAL	33.55	0
1/15	256-03	3	43.89	1.57	1/2.53	<1.8	8.67	34.13	<0.5	<4	<1.6	BAL	33.55	0
1/16	222-04	1	161	BAL	6.3	BAL	6.9	BAL	0.0L	BAL	BAL	BAL	33.55	0
1/17	106-00	1	4.35	BAL	88	BAL	3.3	9.6	.2	3.0L	1.6	BAL	33.55	0
1/18	11180	1	39.39	1.64	5.24	2.54	55.57	33.30	4.00L	10.35B	2.54	L8	56.9	0
1/19	43-03	1	73.38	3.04	3.1	0.0L	4.2	3.4	BAL	BAL	7.2	890	23.7	0
1/20	114-19	1	1.68	1.4	6	4.5	4.5	2.8	4.02	<1	<1	<50	4.5	0
1/21	146-02	1	4.4	0.115	13.9	38.5	2.23	3.85	0.027	136	577	L8	2180	0
1/22	103-08	3	77.07	BAL	4.5	BAL	5.37	18.67	0.022	BAL	BAL	BAL	27	6
1/23	111-90	1	1.53	21	3.85	4.05	3.7	8.15	<0.03	<1	<1	<8.5	<430	0
1/24	111-89	1	0.97	<1	4	1.5	3.9	1.5	<0.03	<1	<1	9.5	1.5	0
1/25	1056-04	1	12.58	0.64	1/2	1.8	<4	<4	1.05	<1.4	<1.6	BAL	374	0
1/26	111-91	1	43.23	0.1	4.1	4.16	4.84	35.2	0.0207	226	2.21	<2794	16.6	.0012
1/27	134-03	1	141.64	8.04	270	BAL	55.3	57	BAL	BAL	BAL	53.7	0	
1/28	255-04	1	27.83	6.41	3	8.0L	2	BAL	BAL	BAL	30	12	0	

1.000 U.S. Department of Environmental Regulation
Soil Thermal Treatment Facility
Untreated Soil Report, Form

Name of Facility: _____
Air Permit No.: _____
Soil Treatment Permit No.: _____
Stationary _____ or Mobile Facility: _____

Month: / Year: 92

Day of Month No.	Soil Batch ID#	Sample Number	Amount, Volume or Weight cy/tm	Analytical Results								Totals	RPH	Indicate Other Analyses
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag			
1/2	114-15	1	131.02	5.04	0.04	5.6	9.2	.2	0.04	2.4	0.04	0.04	103.2	0
1/2	106-87	1	47.99	1.1	2.2	1.5	4.0	1.9	.022	<1	<1	0.04	57	0
1/3	106-86	1	2.55	0.04	8	0.04	4	4.4	0.04	0.04	4.345	200	0	
1/3	106-88	1	1.64	<1	1/2	<.8	5.6	<4	1.05	1.4	0.16	53.80	10368	0
1/3	114-18	1	22.95	1.4	<1/2	<.8	<4	<4	<0.5	1.4	1.16	0.04	25	0
1/7	114-18	1	14.30	1.4	<1/2	<.8	<4	<4	<0.5	<4	<1.6	0.04	25	0
1/3	114-18	1	18.01	1.4	<1/2	<.8	<4	<4	<0.5	1.4	<1.6	0.04	25	0
1/3	106-86	1	1.57	2.7	18	114	60	18	0.04	4.5	11.3	0.04	23	0
1/3	106-19	1	79.29	.27	1.1	2.2	3.82	14.5	1.001	2.34	51.15	5122.3	170	0
1/3	103-21	1	34.13	1.4	<2	<.5	1.0	.6	<0.2	<1	<1	42.80	1.5	0
1/3	106-96	1	3.27	1.4	<1/2	<.8	<4	<0.5	1.04	<1.6	0.04	145	0	0
1/6	106-97	1	2.46	0.04	43.7	0.04	4.1	0.04	0.04	0.04	0.04	0.04	22	0
1/6	106-90	1	.69	1.91	<1/2	<.8	<4.0	<4.0	<0.5	1.4	<5.0	0.04	190	0
1/6	106-91	1	1.82	0.033	8.8	1.3	9.1	.47	1.05	.11	1.6	1.30	619	0
1/6	106-92	1	1.17	1.4	<1/2	<.8	<4.0	<4.0	<0.5	1.4	1.16	0.04	73	0
1/6	106-93	1	.76	6.75	42.4	4.8	7.2	<4	<0.5	1.4	2.4	0.04	15	0
1/6	106-94	1	.82	<1	16.4	1.8	5.92	<4.0	.445	<4.4	1.4	0.04	97	0
1/6	235-03	3	106.85	1.53	54.9	0.04	18.1	48.3	.033	0.04	438.3	1627	10008	
1/6	111-87	1	28.94	1922	10.5	2.69	11	27.3	4.001	4.002	3.39	155.9	98	0
1/7	106-99	1	6.45	<1	3.6	1.5	3.9	1.8	<0.3	<1	<1	8.8	66	0

Untreated Soil Report - Form

Name of Facility: _____
 Air Permit No.: _____
 Soil Treatment Permit No.: _____
 Stationary _____ or Mobile Facility: _____

Month: 12 Year: 91

Day of Mo.	Soil Batch ID#	Sample Number	Amount, Volume or Weight cy/in	Analytical Results								Totals	Indicate Other Analyses Attach Lab Results Only		
				Metals											
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag				
12/24	258-01	3	32.47	1.4	6	1.5	2.96	2.97	.033	<1	<1	<8371	<13		
12/26	258-01	3	78.05	1.4	6	1.5	2.96	3.97	.033	<1	<1	<8371	<13		
12/27	258-01	3	49.16	1.4	6	1.5	2.96	3.97	.033	<1	<1	<8371	<13		
12/28	106-79	3	30.66	1.157	11.91	1.06	26.37	20.16	.038	<0.038	20.91	1.924	213.8		
12/29	106-79	5	57.34	1.36	67.38	60.1	4.42	1.3	0.01	0.01	0.01	576.84	45.2		
12/29	106-79	5'	813.73	1.36	67.38	60.1	4.42	1.3	0.01	0.01	0.01	576.84	45.2		
12/29	111-79	1.	1.35	1.002	1.1	1.05	2.52	0.01	0.0091	0.0777	0.3716	<9	270		
12/29	111-81	3	147.62	4.9	65.2	2.54	8.36	98.9	.031	.05	3.35	<8	48.1		
12/29	111-81	3	47.98	4.9	65.2	2.54	8.36	98.9	.031	.05	3.35	<8	48.1		
12/29	111-82	1	1.42	1.002	1.1	2.31	7.59	31.3	0.0227	1.0023	1.7	<9	170		
12/29	111-83	1	.5	.0384	1.93	1.31	1.12	4.62	.00168	.1035	.231	8	30.8		
12/29	15206	1	40.45	9.0	10	1.5	5	7.0	1.02	<1	<1	BDL	238		
12/29	15206	1	4.36	1.4	46.4	4.1	1.9	1.4	■	BDL	BDL	<555	6500		
12/29	15206	1	4.36	1.4	46.4	4.1	1.9	1.4	■	BDL	BDL	<555	6500		
12/29	268-01	4	943.02	.52	13.98	3.04	6.035	38.32	1.0212	1.0311	2.87	8	128.25		
12/30	111-84	3	527.21	1482	24.21	3.58	6.04	68.36	.006	.0169	7.58	<13	40.75		
12/30	111-82	3	140.11	866	18.87	1.9	2.57	13.8	0.01	0.01	0.01	26.5	0		
12/31	111-83	2.	124.08	2.5	740	4.35	3.46	54.9	.0445	0.01	4.2	BDL	47.4		
12/31	106-95	1	47.24	501	520	2.9	1.75	30	0.01	0.01	2.2	BDL	285		

See reverse side for instructions

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Name of Facility: Rinkear Materials Corp
Air Permit No.: _____
Soil Treatment Permit No.: _____
Stationary or Mobile Facility:

Month: 12 Year: 91

Day of Mo. No.	Soil Batch ID#	Sample Number	Amount, Volume or Weight cy/tn	Analytical Results								Totals				Indicate Other Analyses	Attach Lab Results Only	
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag	VDA	RPH					
12/12	114-17	1	19.35	30L	1	80L	80L	80L	80L	80L	80L	1300	34V			0		
12/13	111-60	1	21.45	78L	<.01	2.42	15.2	35.3	4.002	.0008	.781	1681			0			
12/13	230-02	1	19.51	20.5	3.6	2.0	3.3	16.1	8.04	8.04	2.1	80L	37		0			
12/14	136-04	3	52.98	1.93	2.4	<6.3	30.67	58.67	<0.01	<1	<1	80L	29.3		0			
12/17	136-04	3	377.53	1.93	2.4	<6.3	30.67	58.67	<0.01	<1	<1	80L	29.3		0			
12/17	262-01	1	2.08	35	2.8	<5	3.5	22	0.02	1.4	80L	80L	94		6			
12/17	106-85	1	90.51	30L	10.3	0.02	3.0	12.2	0.01	0.01	80L	2320	41		0.002			
12/18	258-01	3	75.70	1.4	6	<.5	2.96	3.87	0.833	<1	<1	88371	<1.3		,0001			
12/19	257-01	3	43.14	<.1	6	<.5	2.96	3.87	0.833	<1	<1	88371	<1.3		,0004			
12/20	258-01	3	19.10	<1	6	<.5	2.96	3.87	0.833	<1	<1	88371	<1.3		,0002			
12/21	253-01	1	30.67	1.7	2.6	8.04	1.9	8.04	0.01	0.01	80L	80L	101		0			
12/21	111-76	1	25.45	<.1	2.41	<1	2.57	12.4	30.5	0.005	0.008	2.82	<8	486		0		
12/19	190-06	1	18.82	<1	1.9	1.55	2.4	4.7	<0.3	<1	<1	7050	20		,0001			
12/19	111-58	1	178.46	.0551	<.1	2.68	5.8	16	.0005	.0759	2.82	<34.05	82.4		0			
12/20	111-77	1	113.30	.625	<.1	1.92	3.3	1.92	1.001	.125	.764	<98.7	120		0			
12/20	106-81	1	20.87	2.61	43.6	4.8	6.8	47.6	0.06	<4	1.88	80L	17820		0			
12/21	180-02	3	171.16	0.51	11.91	1.06	16.37	20.10	0.051	1.003	10.91	<9.24	213.8		0			
12/21	180-02	3	11.76	.157	<1.91	1.06	20.37	20.10	0.056	1.003	10.91	<9.24	213.8		0			
12/20	258-01	3	34.69	<.4	6	<.5	2.96	3.92	<0.33	<1	<1	88371	<1.3		16003			
12/23	258-01	3	58.82	<.4	6	<.5	2.96	3.92	.033	<1	<1	88371	<1.3		,0005			

See reverse side for instructions

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Untreated Soil Report Form

Name of Facility: Bunker Materials CorpAir Permit No.: Permit No.:Soil Treatment Facility: Stationary or Mobile Facility: XMonth: 12 Year: 91

1 2 3 4 5 6 7 8

Day of Month	Soil Batch ID#	Sample Number	Amount, Volume or Weight g/t	Analytical Results						Totals	Indicate Other Analyses	Attach Lab Results Only	
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag	VOA	RPH
12/5	111-79	1	2.70	.0573	<1	1.24	1.15	6.03	.0086	.993	1.6265	214	0
12/5	111-75	1	3.27	.0531	3.94	1.22	2.99	1.38	.0292	.102	1.34	18	93.8
12/5	26/01	2	175.04	B0L	158	B0L	7.7	2.75	B0L	B0L	4.05	B0L	190.95
12/5	111-65	1	2.03	.0794	6.63	.862	3.65	8.28	.0016	.0538	.63	136.4	67.3
12/5	111-68	1	2.3	.0288	4.1	.975	1.5	8.97	<001	1.002	<01	18	120
12/5	111-74	1	4.2	.063	5.15	1.75	2.78	14.1	.0028	.0182	.918	<8	138
12/5	111-71	1	0.17	1242	<1	0.837	5.18	8.62	.0271	.009	.812	<8	82.4
12/5	111-70	1	1.37	.0665	12.9	.0829	5.26	28.6	.0005	.0294	<01	235.537	168
12/6	114-66	1	45.55	B0L	42	B0L	80L	8.9	B0L	B0L	B0L	B0L	1410
12/6	101-04	1	14.22	14	16	3.3	B0L	3.8	B0L	B0L	B0L	B0L	210
12/6	106-79	5	733.21	1.36	67.38	B0L	4.42	1.3	B0L	B0L	B0L	B0L	1043.8
12/6	106-79	5	263.47	1.36	67.38	B0L	4.42	1.3	B0L	B0L	B0L	B0L	95.2
12/6	106-79	55	38.70	1.36	67.38	B0L	4.42	1.3	B0L	B0L	B0L	B0L	105.7
12/11	111-61	1	553.35	<361	<1	9.87	10.7	44	4.001	>47	1.78	18	157.4
12/11	10305	1	87.88	<4	6	<5	4.5	2.8	1.02	<1	<5	<5	0
12/11	111-62	1	14.61	.089	0.353	2.41	5.58	44.7	.0012	.0011	.0217	180	586.4
12/11	111-53	1	44.53	.281	4.1	16.4	10.7	104	<001	.143	3.77	<8	1699
12/12	111-59	1	26.71	<281	<1	16.4	10.7	104	<001	.143	3.77	<8	1699
12/12	103-06	1	48.30	13.8	6	<5	3.7	11.4	.04	<1	<1	B0L	11
12/12	114-05	3	355.10	1.61	2.87	0.4	3.5	6.5	B0L	1.03	.75	4625.3	25.3

Name of Facility: Rinker Materials Corp

Air Permit No.: _____
Soil Treatment Permit No.: _____
Stationary or Mobile Facility: _____

Month: 12 Year: 91

Day of Month No.	Soil Batch ID#	Sample Number	Amount, Volume or Weight cu/in	Analytical Results								RPH	Attach Lab Results Only	
				Metals										
				As	Ba	Cd	Cr	Pb	Hg	Se	Ag	VOC		
11/14	117-02	3	302.95	B04	69.9	B04	55.6	2.3	B04	B04	B04	1.3261	744	.004
11/26	2555-02	1	94.48	B04	41.0	B04	3.0	9.0	B04	B04	B04	1.59	74	0
11/26	260-01	3	173.47	1.4	4.2	4.5	1.3	4.2	1.02	1.1	1.1	1.1	5	0
11/27	260-01	3	90.93	1.4	1.2	1.5	1.3	4.2	1.02	1.1	1.1	1.1	5	0
11/27	222-03	1	89.5	1.58	6.8	1.246	2.1	14.2	1.036	1.583	2.23	34420	252	0
11/27	235-02	1	18.74	1.1	1.9	1.5	2.5	6.4	1.03	1.1	1.1	1.538	870	0
11/27	162-09	2	9.64	B04	9.5	B04	2.95	5.3	B04	B04	B04	1.336	B04	0
11/27	102-09	2	154.17	B04	9.5	B04	2.95	5.3	B04	B04	B04	1.336	B04	0
11/27	106-80	1	53.55	B04	19.8	B04	5.8	23.8	1	B04	B04	10.0	349	0
12/12	106-84	1	1.69	.8	B04	B04	13.5	3.1	B04	B04	B04	1.3200	B04	0
12/12	106-82	1	1.35	.619	1.1	2.31	11.3	34.8	.00402	.287	.487	4/15/7	271	0
12/12	106-83	2	1.32	1.0875	1.1	1.525	1.92	3.04	.0079	.0928	.182	14391	11	0
12/14	111-63	1	175.48	2.001	.604	4.19	2.65	0.09	.006	.967	.18	44.5	0	0
12/15	111-63	1	22.37	2.001	.604	4.19	7.65	0.09	.006	.967	.18	44.5	0	0
12/15	111-64	1	3.53	.0932	40.6	.749	43.7	14.4	.0174	.0262	.25	2917	80	0
12/16	111-66	1	1.26	2.17	10	1.61	3.52	19.1	.0358	.109	11.01	1/3543	190	0
12/15	111-67	1	1.55	19.3	5.07	46.3	1.05	2.03	.0187	.0014	.0388	1.8	240	0
12/15	111-72	1	3.09	.0872	7.68	.461	.499	15.4	.0271	.007	.154	1/232.2	49.4	0
12/15	111-73	1	4.3	.0884	9.4	2.301	4.84	18.8	.0246	.0422	.258	<8	11	0
12/15	111-69	1	3.9	.16	22.7	4.55	21.4	.0184	.0002	4.23	1.253	2.54	11	0