I N T E R O F F I C E M E M O R A N D U M

Date: 06-Apr-1995 02:16pm EST
From: Kanani Winans TAL
WINANS_K
Dept: Air Resources Management
Tel No: 904/921-9535
SUNCOM: 278-1344

TO: Willard Hanks TAL (HANKS_W)

Subject: Rinker Materials Corporation, AC13-187599

Willard,

I need a copy of the final determination of the file listed above. If you have a copy that I can keep in the file please put it on my desk. If it is your only copy please let me know if you would like me to make a copy of it and return your copy. If you don't have a copy of the requested final determination, please let me know that, too.

Thank you very much.

Kanani

4-7-95

Kanani,
I do not have a file on Rinker. You should be able to get a copy of the final determination from the Southeast District. If I can help you with this, please let me know.

WMH

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Howard L. Rhodes

FROM: Clair Fancy

DATE: May 6, 1993

SUBJ: Amendment of Permit
Rinker Material Corporation

Attached for your approval and signature is a reissued air construction permit for a stationary soil thermal treatment facility at Rinker's cement plant in Miami, Dade County, Florida. The original construction permit, issued under an earlier policy for these operations, is being replaced with one that incorporates the recent requirement adopted in the air regulations for these operations.

I recommend your approval and signature.

CF/WH/plm

Attachment

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

May 6, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James S. Jenkins, III
Rinker Material Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Re: Amendment of Permit No. **AC**13-187599
Stone Dryer Modification

The Department is in receipt of Mr. John Koogler's August 13, 1992, and October 29, 1992, letters requesting that the referenced permit be amended. Mr. Koogler requested that: the compliance testing requirements be clarified; that the permittee be allowed to substitute operating parameters for the incinerator destruction efficiency tests; that EPA Method 25A be used to measure volatile organic compound (VOC) emissions, and that the facility be allowed to treat polychlorobiphenyls (PCBs) contaminated soils. These requests are acceptable, with conditions. Additional changes pursuant to the recent amendment of the Department's air pollution control regulations that incorporated specific standards for soil thermal treatment facilities are also being made to this permit. Construction permit No. **AC**13-187599 is being reissued to incorporate these amendments and changes. Also, the expiration date is being extended to protect your rights to petition for a hearing on the reissued permit.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of receipt of this amendment. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this amendment in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

A copy of this letter shall be filed with the referenced permit and shall replace the original permit.

Sincerely,

Howard L. Rhodes
Director
Division of Air Resources Management

HLR/WH/plm

Attach: Permit No. **AC**13-187599

cc: Isidore Goldman, SED
Patrick Wong, DERM
John Koogler, P.E.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

PERMITTEE:
Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

Permit Number: AC13-187599A
Expiration Date: June 30, 1993
County: Dade
Latitude/Longitude: 25°46'48"N
80°25'10"W
Project: Modification of the Stone Dryer

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-212 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Modify the existing stone dryer system to decontaminate up to 40 TPH of petroleum contaminated soil. Major components of the system are Gencor Ultraflame low excess air oil burners for the existing 7 ft. diameter by 80 ft. long rotary dryer, an 85% efficient Joy-Western multicyclone, a 99.9% efficient Micropul baghouse with 3,366 sq. ft. of cloth area, a 99.5% efficient natural gas fired IT/McGill afterburner, two heat exchangers for energy recovery, a raw material gallery controlled with a Micropul baghouse that discharges approximately 500 acfm at 400°F through a 1.0 ft. square stack that is 45 ft. high, material handling equipment (screens, inclined belt feeders, bucket elevator, crusher, and stacker), fuel systems (used petroleum oil meeting the provisions of 40 CFR 266, Subpart E, propane, natural gas, and No. 2 fuel oil for the dryer, and natural gas and propane for the afterburner), a by-pass stack to be used only when the kiln is drying stone, and associated equipment. Air pollutants from the dryer are discharged in approximately 36,500 acfm of 800°F flue gases through a 4.5 ft. diameter by 80 ft. high stack.

This system is located at the permittee's Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The UTM coordinates of this site are Zone 17, 558.2 km E and 2851.3 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

PERMITTEE: **Permit Number: AC13-187599**
Rinker Materials Corporation **Expiration Date: June 30, 1993**

Attachments are listed below:
1. Application received Dec. 10, 1990.
2. Rinker's letter dated Feb. 22, 1991.
3. Environmental Quality Management, Inc. letter dated Mar. 5, 1991.
4. Environmental Quality Management, Inc. letter dated May 8, 1991.
5. DERM letter dated Jun. 27, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source

GENERAL CONDITIONS:

which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;

GENERAL CONDITIONS:

- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Miscellaneous

1. Part of this permit consists of the 14 General Conditions. The following index of the Specific Conditions of this permit is provided for convenience.

Purpose of Specific Conditions	Specific Condition Numbers
Miscellaneous	1 - 2
Construction Requirements	3 - 5
Emission Restrictions	6 - 11
Operation Requirements	12 - 25
Compliance Requirements	26 - 29
Administrative Requirements	30 - 34

2. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapter 17-296 and 17-297, F.A.C., or any other requirements under federal, state, or local regulations. The permittee is also required to comply with F.A.C. Rule 17-775 and any applicable county regulation which may include requirements for a county operation permit.

Construction Requirements

3. The construction of this facility shall reasonably conform to the plans and schedule submitted in the application.

4. The stack sampling facilities must comply with Rule 17-297.345, F.A.C.

SPECIFIC CONDITIONS:

5. The facility shall be equipped with a means to measure the pressure drop across the particulate matter air pollution control device and continuous emissions monitors and recorders for hot zone temperature and carbon monoxide concentration (Rule 17-296.415(1)(c), F.A.C.).

Emission Restrictions

6. Particulate matter (PM) and lead emissions from the dryer shall not exceed any of the following limits (Based on data in the application and Rule 17-296.415(2)(b), F.A.C.):

(A) 0.04 grains PM per dry standard cubic foot.

(B) 3.3 pounds PM per hour (max.), 1.0 pounds PM per hour (avg.).

(C) 4.38 tons PM in any 12 consecutive month period.

(D) 0.13 pounds lead per hour.

7. Particulate matter emissions from the fugitive dust baghouse shall not exceed 0.02 grains/dscf, nor 0.5 lbs/hr. Visible emissions from any part of the process shall not exceed 5 percent opacity.

8. Carbon monoxide emissions shall not exceed 100 parts per million by volume, dry, during any 60 consecutive minute period (Rule 17-296.415(1)(b), F.A.C.).

9. Visible emissions from the afterburner stack shall not exceed 5 percent opacity (Rule 17-296.415(2)(a), F.A.C.).

10. Reasonable precautions shall be taken to minimize uncontrolled particulate matter emissions (Rule 17-296.310, F.A.C.). These provisions are applicable to any source, including vehicular movement, transportation of materials, and industrial related activities such as loading, unloading, storing, and handling. Before and after thermal soil treatment is accomplished, unconfined emissions of particulate matter from the soil shall be controlled by the application of water and/or containment (Rule 296.415(3), F.A.C.).

11. Operation of this facility shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor (Rule 17-296.320, F.A.C.).

SPECIFIC CONDITIONS:

Operation Requirements

12. The system shall be properly operated and maintained (F.A.C. Rule 17-210.300(2)). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly (F.A.C. Rule 17-210.650. The afterburner must be in service any time the stone dryer is used to decontaminate soil. The use of the afterburner is not required when the dryer is used to dry stone. In case of excess emissions resulting from a malfunction, the permittee shall notify the Dade County Department of Environmental Resources Management and the Department's Southeast District office within 1 working day of the cause and duration of the upset. If requested, the permittee shall submit a full written report on the malfunction. (Rule 17-210.700, F.A.C.).

13. The facility shall only treat petroleum contaminated soil as defined in F.A.C. Rule 17-775.200(9), (F.A.C. Rule 17-296.415), whose metal concentrations do not exceed the limits shown in Table I of F.A.C. Rule 17-775.400(3).

14. Soil containing more than 1.4 percent petroleum (daily average) products shall not be treated in this facility unless it is processed at a rate less than 40 TPH and potential VOC emissions do not exceed 22.8 pounds per hour.

15. This facility may treat polychlorobiphenol (PCB) contaminated soil. Any soil containing PCB must meet all the requirements of F.A.C. Rule 17-775.410(6). The permittee shall maintain a log that shows the PCB content of any soil containing used oil, hydraulic oil, and/or mineral oil; the source of the PCB contaminated soil; the tons of PCB contaminated soil treated; the PCB content of the oil that contaminated the soil; the quantity of PCBs in each batch of soil that is treated; and the total amount of PCBs treated during the preceding 12 month period. Emissions of PCBs from the stack shall not exceed 154 pounds in any consecutive 12 month period. The cumulative weight of emissions shall be calculated using either of the following methods:

(a) The weight of PCBs entering the kiln shall be assumed to be the weight emitted.

(b) The weight of emission shall be calculated using the weight entering the kiln with adjustment for documented destruction in the facility by a test program conducted by the permittee that is approved by the Department.

Method (a) shall be used until a destruction rate has been established on this system by stack test. Test protocol and methods

SPECIFIC CONDITIONS:

to be used in determining destruction efficiency shall be submitted to the Department for approval. Method (b) shall not be used until the test results have been reviewed and accepted by the Department.

16. The input rate of petroleum contaminated soil to the facility shall not exceed 40 tons per hour. Material entering the kiln cannot be larger than 2 inches in diameter. The permittee shall have the means of determining feed or production rates of the facility on site.

17. The unit shall not be operated in a manner that creates a nuisance.

18. This unit shall be allowed to operate continuously, 24 hours per day, 7 days per week, 52 weeks per year.

19. The input of petroleum contaminants in the soil into the facility shall not exceed 1120 pounds per hour (daily average).

20. The dryer is authorized to burn up to 27.4 MM Btu/hr of waste oil (193 GPH) containing a maximum of 0.4 percent sulfur and 500 ppm lead, No. 2 distillate oil (193 GPH) containing a maximum of 0.5 percent sulfur, and propane (180 CFM)/or natural gas (460 CFM). The maximum fuel oil consumption shall not exceed 769,459 gallons in any 12 month period.

21. The fume incinerator (afterburner) is authorized to burn up to 15.0 MM Btu/hr of natural gas (250 CFM) or propane(100 CFM). The fume incinerator shall be in service any time the stone dryer is being used to process material containing contaminated soil. The by-pass stack must be closed when the unit is processing contaminated soil.

22. Contaminated soil shall not be treated by the facility unless the afterburner is operating at a minimum temperature of 1600 degrees Fahrenheit, and a minimum retention time of 0.5 seconds. If the permittee can document that the retention time of the flue gases in the afterburner is 1 second or more, the afterburner temperature may be reduced to 1500 °F (Rule 17-296.415(1)(a), F.A.C.).

23. All emission monitoring equipment shall be properly installed, calibrated, operated, and maintained in accordance with the manufacturer's requirements for that instrument.

24. Pressure drop across the particulate matter air pollution control device shall be recorded hourly and the temperature and

SPECIFIC CONDITIONS:

carbon monoxide concentration of the hot zone shall be recorded continuously (Rule 17-296.415(1)(c), F.A.C.).

25. Use of the existing cement kiln to decontaminate soil shall cease when the stone dryer begins operation as a soil decontamination unit or when this construction permit expires, whichever event occurs first.

Compliance Requirements

26. The Southeast District and Dade County Department of Environmental Resources Management shall be notified in writing at least 15 days in advance of any formal compliance test to be conducted on this facility. The notification shall give the date, time, place, and contact person for the test (Rule 17-297.340(1)(i), F.A.C.).

27. This facility shall be tested (EPA test methods are specified in 40 CFR 60, Appendix A, revised July 1, 1992) at 90 - 100% of its permitted process rate within 30 days of placing it in service concurrently for:

(A) Particulate matter (PM) emissions by EPA Methods 1, 2, 3, 4, and 5.

(B) Visible emissions by EPA Method 9.

(C) Carbon monoxide (CO) emissions by averaging each hour of the readings from the CO continuous emission monitor during the PM test periods.

(D) Afterburner temperature by averaging each hour of the temperature readings from the continuous temperature monitor during the PM test period.

(E) Afterburner residence time using the test data collected by EPA Methods 1 and 2.

(F) Fuel oil sulfur limits based on analysis referenced in 40 CFR 60.17 or other methods after Department approval. A certified analysis by the fuel oil supplier will be acceptable.

(G) Contaminated soil analysis for volatile organic aromatics (VOA), total recoverable petroleum hydrocarbons (TRPH), polynuclear aromatic hydrocarbons (PAH), volatile organic halocarbons (VOH), and metals as required by Rule 17-775.410, F.A.C.

SPECIFIC CONDITIONS:

(H) The initial compliance test and any test data submitted with an application for permit to operate (every 5 years) shall include analysis of the filter and impinger catch for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver along with similar analysis of the contaminated and treated soil processed during the test.

28. Compliance tests results shall be submitted to the Southeast District and Dade County within 45 days of the test.

29. When the Department, after investigation, has good reason to believe that any applicable emission standard or condition of this permit is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the plant and to provide a report on the results of said tests to the Department (Rule 17-297.340(2), F.A.C.).

Administrative

30. The permittee shall maintain a daily log that shows the date, operation time, pressure drop across the PM control device, processing rate, type and quantity of fuel consumption in the dryer and afterburner, and operation problems. These records shall be maintained for a minimum of 3 years.

31. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements, all continuous monitoring system performance evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, all soil analysis required by Rule 17-775, F.A.C., and all other information required by rule or this permit, recorded in a permanent form suitable for inspection. The file shall be retained for at least 3 years following the date of such measurements, maintenance, reports, and records.

32. The permittee shall submit to Southeast District each calendar year, on or before March 1, an annual operation report for this facility for the preceding calendar year containing at least the following information pursuant to Subsection 403.061(13), F.S.:

(A) Annual amount of material and/or fuels utilized.

(B) Annual emissions (note calculation basis).

(C) Annual hours of operation.

SPECIFIC CONDITIONS:

(D) Any changes in the information contained in the permit.

(E) All compliance test reports for the preceding year.

(F) Temperature and CO exceedance reports for the year.

33. The permittee may request, in writing, that the permit(s) for this facility be modified to authorize the treatment of materials not meeting the specifications in F.A.C. Rule 17-775. The request to the Division of Air Resources Management shall include the appropriate processing fee for a modification, the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Air Toxic Reference Concentration for any toxic pollutant. Public notice may be required by the Department as part of the review to modify the permit(s). The Department will approve or deny each request in writing on a case-by-case basis.

34. The permittee, for good cause, may request that this construction permit be extended. Such request shall be submitted to the Bureau of Air Regulation (BAR) prior to 60 days before the expiration of the permit (Rule 17-4.090, F.A.C.).

35. An application for an operation permit must be submitted to the Southeast District at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the Applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (Rule 17-4.220, F.A.C.).

Issued this 17 day
of May, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Howard L. Rhodes, Director
Division of Air Resources
Management

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- 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 S Jenkins III
Pinker Material Corp.
PO Box 650679
Miami, Fl 33265-0679

4a. Article Number
P 230 524 355

4b. Service Type
☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

MIAMI, FL OLYMPIA ... BR. MAY 26 1993 USPO

5. Signature (Addressee)
Lilian Gumab

6. Signature (Agent)

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

PS Form ... December 1991 ★U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 230 524 355

UNITED STATES POSTAL SERVICE

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to: James Jenkins	
Street and No.: Pinker Material	
P.O., State and 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, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 5-18-93 AC 13-187599	

PS Form **3800**, June 1991

Rinker Materials

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

November 4, 1992

Mr. Clair Fancy
Division of Air Resources
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Rinker Materials Corporation Dade County Florida Permit AC-13-187599
Soil Remediation Unit Compliance Test

Dear Mr. Fancy:

The compliance test for this soil remediation unit is scheduled for November 18, 1992 and will be performed by Koogler and Associates Environmental Services, Gainesville, Florida. This test will be used to show compliance with FAC 17.296.

If there are any questions, please contact me at 305-221-7645.

Very truly yours,

Michael D. Vardeman
Manager, Materials Substitution

MDV:lg

cc: Arturo Bolivar - DERM
Stephanie Brooks - S.E. Florida District
Isidore Goldman - S.E. Florida District
Willard Hanks - FDER
Pat Wong - DERM

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5445613865

2288P 5445613865

1 Date 11-5-92

RECIPIENT'S COPY

From (Your Name) Please Print	Your Phone Number (Very Important)	To (Recipient's Name) Please Print	Recipient's Phone Number (Very Important)
MICHAEL VARDEMAN	(305)221-7645	2 CLAIR FANCY	( )
Company	**Department/Floor No.**	**Company**	**Department/Floor No.**
NKER PORTLAND CEMENT CORP		FDER	
Street Address		**Exact Street Address** (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.)	
00 NW 137TH AVE		2600 BLAIR STONE ROAD	
City / **State** / **ZIP Required**		**City** / **State** / **ZIP Required**	
API / FL / 33182		TALLAHASSEE / FL / 32399-24	

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City / State / ZIP Required

3 PAYMENT 1 [✓] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)	Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
11 [ ] OTHER PACKAGING	51 [ ] OTHER PACKAGING
16 [ ] FEDEX LETTER*	56 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*	52 [ ] FEDEX PAK*
13 [ ] FEDEX BOX	53 [ ] FEDEX BOX
14 [ ] FEDEX TUBE	54 [ ] FEDEX TUBE
Economy Two-Day (Delivery by second business day †)	**Government Overnight** (Restricted for authorized users only)
30 [ ] ECONOMY	46 [ ] GOV'T LETTER
	41 [ ] GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required) 80 [ ] TWO-DAY FREIGHT**
†Delivery commitment may be later in some areas. *Declared Value Limit $500. **Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)

HOLD FOR PICK-UP (Fill in Box H) { 1 [ ] WEEKDAY or 31 [ ] SATURDAY
DELIVER { 2 [✓] WEEKDAY or 3 [ ] SATURDAY (Extra charge) (Not available to all locations)
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845, ____ x ____ kg. III
7 [ ] OTHER SPECIAL SERVICE
9 [ ] SATURDAY PICK-UP (Extra charge)
[ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
0	1	0
Total	Total	Total

DIM SHIPMENT (Chargeable Weight)
[ ] ____ lbs.
L x W x H

Received At
1 [ ] Regular Stop 3 [ ] Drop Box 4 [ ] B.S.C. 2 [ ] On-Call Stop 5 [ ] Station

7 Release Signature:

Emp. No. / Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City / State / Zip
Received By: X
Date/Time Received / FedEx Employee Number

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 6/92
PART #137204 FXEM 9/92
FORMAT #136
136

Rinker

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

April 14, 1992

Florida Department of Environmental Regulations
Attn: Ms. Stephanie Brooks
1900 South Congress Avenue
West Palm Beach, FL 33406

Re: Stone Dryer Modifications

This letter is to advise you of the current status of this conversion to an afterburner operation. Installation of equipment has been proceeding although there have been delays due to late equipment delivery from the manufacturer. As such, we are attempting to make up for these delays through extended work hours and weekend work. Anticipated start up of equipment is to begin the first week of May with the first test of soils in the system the second week of May.

I will keep you informed of our progress. Thank you for your assistance in this matter.

Very truly yours,

Michael Vardeman
Manager,
Rinker Materials Substitution, Inc.

cc: Ms. Clair Fancy-FDER Tallahassee
Mr. Willard Hanks-FDER Tallahassee
Mr. Pat Wong-DERM

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Carol M. Browner

FROM: Steve Smallwood

DATE: March 4, 1992

SUBJ: Amendment of Permit No. AC 13-187599

Attached for your approval and signature is a letter that will extend the expiration date of a permit to construct a soil thermal treatment facility at Rinker Materials Corporation's cement plant in Miami, Dade County, Florida.

The request is not controversial. I recommend your approval and signature.

CMB/WH/plm

Attachment

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

March 4, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III
Rinker Material Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Re: Amendment to Permit No. AC 13-187599
Stone Dryer Modification

The Department is in receipt of Mr. Michael Vardeman's October 23, 1991, and February 20, 1992, letters requesting that the expiration date of the referenced construction permit be extended and that other changes be made to the specific conditions of that permit. A meeting on this request with members of your staff and the Department was held in Tallahassee on November 11, 1991. At that meeting, the Department was asked to extend the expiration date of the permit but to hold the other requests in the October 23 letter in abeyance. The November 11 request is acceptable and the expiration date of Permit No. AC 13-187599 is extended from March 30, 1992, to September 25, 1992.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

A copy of this letter shall be attached to the referenced permit and shall become a part of that permit.

Sincerely,

Carol M. Browner
Secretary

CMB/WH/plm

Attach: Rinker's Oct. 23, 1991, letter
Rinker's Feb. 20, 1992, letter

c: S. Brooks, SED
P. Wong, DERM

Rinker

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

RECEIVED
FEB 28 1992
Bureau of
Air Regulation

February 20, 1992

Florida Department of Environmental Regulation
Attn: Mr. Willard Hanks
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Stone Dryer Modification Permit No. AC13-187599

As per our discussion, this letter serves as a reminder to extend construction permit No. AC13-187599 until September 1992 as previously agreed.

Other changes to condition will be made at the time of issuance of the air permit. If there are any questions, please contact me.

Very Truly Yours,

Michael D. Vardeman
Manager,
Rinker Materials Substitution

MV/ld

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- 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 Fee will provide you the signature of the person delivered to and the date of delivery.

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 S. Jenkins III
Rinker Material Corp.
P.O. BOX 650679
Miami FL 33265-0679

4a. Article Number
P 617 884 150

4b. Service Type
☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
MAR 17 1992

5. Signature (Addressee)

6. Signature (Agent)

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

PS Form **3811**, November 1990 ☆U.S. GPO: 1991—287-066 **DOMESTIC RETURN RECEIPT**

P 617 884 150

Certified Mail Receipt
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to: James S. Jenkins III	
Street & No.: Rinker Material Corp	
P.O., 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, & Address of Delivery	
TOTAL Postage & Fees	$
Postmark or Date 3-11-92	
AC 13-187599	

PS Form **3800**, June 1990

Rinker Materials

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

October 23, 1991

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
Mr. Claire Fancy
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Stone Dryer Modification Permit No.: AC 13-187599

After speaking with Willard Hanks and further reviewing the specific conditions in the final determination and permit to construct with Ron Hawks and Bill Voshell the following conditions are reviewed for problems as changed.

Specific Condition #3. Construction Requirement

The state policy mandates a 95% minimum on destruction capability for VOC's. This condition has been changed to require a 98.8% capability. We can find no reason for this change and request it be returned to 95%. Although the unit being constructed will destroy VOC's greater than 95%, the permit should not reflect more than the required policy limit.

Specific Condition #10. Operation Requirements

FAC 17-775 specifies the way soils shall be received and stored prior to final processing. No requirement for plastic sheets covering these materials is made in this rule. The facility currently being constructed will meet the requirements as specified in FAC 17-775. It is a roofed enclosure with three walls, leachate collection and impermeable floor. Rinker should not be required to place plastic over these materials when in this facility. The areas where this is required is at a job site or some exposed area.

Specific Condition #17

The soils immediately leaving the dryer are more than 600 degrees fahrenheit and will go into stainless steel sampling cans until cool. The protocol for this sampling was required in FAC 17-775 to demonstrate the soils meet clean fill standards. As stated glass jars would break when the materials coming out of the dryer are placed in them.

Rinker Materials

Rinker Materials Corporation
P.O. Box 650679
Miami, FL 33165-0679

RETURN RECEIPT REQUESTED

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

CERTIFIED

P 328 309 201

MAIL

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
Mr. Claire Fancy
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Specific Condition #28

The conversion of the dryer includes the ability to operate at varying tonnages to enable more highly contaminated soils to be appropriately decontaminated and the VOC's destroyed concurrently. Rinker's intention has always been to operate at tonnages or temperatures necessary to decontaminate the soils and destroy the VOC's Rinker would have to get FDER approval to operate at a lower rate as this condition is written.

Specific Condition #32

Due to the variety of delays in permitting for Rinker's Materials Substitution operations at State and County level Rinker is by separate letter requesting an extension of this permit until June 15, 1992 to complete construction and start-up.

If there are questions or comments please contact me at 1-305-221-7645. Thank you for your help in this matter.

Very truly yours,

Michael D. Vardeman
Manager Materials Substitution

MDV:lg

cc: W. Hanks
S. Brooks, SFWMD
P. Wong, DERM

Best Available Copy

Rinker Materials

FACSIMILE

TRANSMISSION

CEMENT DIVISION OFFICE

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

TO: Willard Hanks DATE: 10/14/91

LOCATION: FDER TALLAHASSEE FROM: M [illegible]

FAX NUMBER 904-922-6479 NO. OF PAGES: 2 (Including this page)

Letter with comments to follow - for Notice purposes only.

10-14-91

Mike V. said he had problems with some of the specific conditions, including requiring 98.8% destruction efficiency. Told him to request ext. in time to file for hearing and send letter describing problems.

WMH

Rinker Materials

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

October 14, 1991

State of Florida
Department of Environmental Regulation
Att: C.H. Fancy, P.E., Chief Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Sir:

This letter is follow up for discussions with Willard Hanks on October 10, 1991 of your section in reference to questions Rinker has regarding changes in the Notice of Permit DER File No. AC13-187599.

Mr. Hanks wanted time to review the issues in question.

Your assistance in this matter is appreciated.

Very truly yours,

Michael D. Vardeman
Manager Material Substitution

MDV:lg

Rinker Materials

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

September 27, 1991

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
Att: Mr. Willard Hanks
2600 Blair Stone Road
Tallahassee, FL 32399

RE: Analysis

Willard,

Enclosed are some typical analysis of materials received. They cover the spectrum.

If you require further analysis please contact me.

Very truly yours,

Michael D. Vardeman
Manager Materials Substitution

MDV:lg

VOC
ANALYTICAL

Client #: 92
Client Name: AUSTIN TUPPLER
Address: 6570 S.W. 47 COURT
FT. LAUDERDALE, FL 33314

Sample Description: RINKER ANALYSIS
DIESEL SPILL
HWY. 441, NORTH OF
BOYTON ROAD

Date: 6/28/91
Log#: 477-1

Label: SOIL COMPOSITE
Date Sampled: 6/21/91
Date Received: 6/21/91
Collected By: YOUR REP

Parameter	Result	Units	Method	Detection Limit	Extr. Date	Anal. Date	Analyst
Bromodichloromethane	BDL	mg/kg	5030/8021	0.125	6/20/91	6/24/91	GP
Bromoform	BDL	mg/kg	5030/8021	0.125			
Bromomethane	BDL	mg/kg	5030/8021	0.125			
Carbon Tetrachloride	BDL	mg/kg	5030/8021	0.125			
Chloroethane	BDL	mg/kg	5030/8021	0.125			
2-Chloroethylvinyl Ether	BDL	mg/kg	5030/8021	0.125			
Chloroform	BDL	mg/kg	5030/8021	0.125			
Chloromethane	BDL	mg/kg	5030/8021	0.125			
Dibromochloromethane	BDL	mg/kg	5030/8021	0.125			
1,2-Dichlorobenzene	BDL	mg/kg	5030/8021	0.125			
1,3-Dichlorobenzene	BDL	mg/kg	5030/8021	0.125			
1,4-Dichlorobenzene	BDL	mg/kg	5030/8021	0.125			
Dichlorofluoromethane	BDL	mg/kg	5030/8021	0.125			
Chlorobenzene	BDL	mg/kg	5030/8021	0.125			
Vinyl Chloride	BDL	mg/kg	5030/8021	0.125			
1,1-Dichloroethane	BDL	mg/kg	5030/8021	0.125			
1,2-Dichloroethane	BDL	mg/kg	5030/8021	0.125			
1,1-Dichloroethene	BDL	mg/kg	5030/8021	0.125			
Trans-1,2-Dichloroethene	BDL	mg/kg	5030/8021	0.125			
1,2-Dichloropropane	BDL	mg/kg	5030/8021	0.125			
Cis-1,3-Dichloropropene	BDL	mg/kg	5030/8021	0.125			
Trans-1,3-Dichloropropene	BDL	mg/kg	5030/8021	0.125			
Methylene Chloride	BDL	mg/kg	5030/8021	0.125			
1,1,2,2-Tetrachloroethane	BDL	mg/kg	5030/8021	0.125			
Tetrachloroethene	BDL	mg/kg	5030/8021	0.125			
1,1,1-Trichloroethane	BDL	mg/kg	5030/8021	0.125			
1,1,2-Trichloroethane	BDL	mg/kg	5030/8021	0.125			
Trichloroethene	BDL	mg/kg	5030/8021	0.125			
Trichlorofluoromethane	BDL	mg/kg	5030/8021	0.125			

VOH

Client #: 92
Client Name: AUSTIN TUPPLER
Address: 6570 S.W. 47 COURT
FT. LAUDERDALE, FL 33314

Sample Description: RINKER ANALYSIS
DIESEL SPILL
HWY. 441, NORTH OF
BOYTON ROAD

Date: 6/28/91
Log#: 477-1

Label: SOIL COMPOSITE
Date Sampled: 6/21/91
Date Received: 6/21/91
Collected By: YOUR REP

Parameter	Result	Units	Method	Detection Limit	Extr. Date	Anal. Date	Analyst
Benzene	BDL	mg/kg	5030/8021	0.125	6/20/91	6/24/91	GP
Chlorobenzene	BDL	mg/kg	5030/8021	0.125			
1,2-Dichlorobenzene	BDL	mg/kg	5030/8021	0.125			
Toluene	0.54	mg/kg	5030/8021	0.125			
MTBE	BDL	mg/kg	5030/8021	0.125			
Ethyl benzene	1.4	mg/kg	5030/8021	0.125			
Total Xylenes	7.9	mg/kg	5030/8021	0.125			
1,3-Dichlorobenzene	BDL	mg/kg	5030/8021	0.125			
1,4-Dichlorobenzene	BDL	mg/kg	5030/8021	0.125			
Total VOA	BDL	mg/kg	5030/8021	0.125			
TRPH	12, 973	mg/kg	9073	2.5	6/28/91	6/28/91	LK
Total Chlorides	200	mg/kg	325.3	5.0	N/A	6/24/91	RM
Total Halogens	284	mg/kg	5050/9252	12	6/21/91	6/25/91	RM
Total Sodium	122	mg/kg	3050/7770	10	6/21/91	6/25/91	JG
Total Potassium	31.3	mg/kg	3050/7610	10	6/21/91	6/25/91	JG
Total Cadmium	BDL	mg/kg	3050/7090	1.0	6/21/91	6/24/91	JG
Total Lead	57.0	mg/kg	3050/7420	1.0	6/21/91	6/24/91	JG
Total Selenium	BDL	mg/kg	3050/7741	1.0	6/21/91	6/24/91	JG
Total Arsenic	BDL	mg/kg	3050/7061	1.0	6/21/91	6/23/91	JG
Total Chromium	10.1	mg/kg	3050/7190	1.0	6/21/91	6/24/91	JG
Total Mercury	BDL	mg/kg	3050/7471	0.1	6/21/91	6/25/91	JG
Total Silver	BDL	mg/kg	3050/7760	1.0	6/21/91	6/24/91	JG
Total Barium	11.0	mg/kg	3050/7080	1.0	6/21/91	6/26/91	JG

* BDL = Below Detection Limits
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.

Respectfully Submitted,

Jeffrey S. Glass
Laboratory Director
V.O.C. Analytical Inc.

SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

414 SW 12th Avenue • Deerfield Beach, Florida 33442 • (305) 421-7400 • Fax (305) 421-2584

LOG NO: D1-10896

Received: 22 APR 91

Mr. Joe Farry
ABB Environmental Services, Inc.
1279 SW 46th Avenue, #1805
Pompano Beach, Florida 33069

Project: ABB Power (#06405-30)

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	SAMPLED BY
10896-2	A/C FD (04.22.91)	Client

PARAMETER	10896-2
Volatiles (8010/8020)	
Benzyl chloride, ug/kg dw	<5.0
Bromobenzene, ug/kg dw	<5.0
Bromodichloromethane, ug/kg dw	<5.0
Bromoform, ug/kg dw	<25
Bromomethane, ug/kg dw	<5.0
Carbon Tetrachloride, ug/kg dw	<5.0
Chlorobenzene, ug/kg dw	<5.0
Chloroethane, ug/kg dw	<5.0
Chloroform, ug/kg dw	<5.0
1-Chlorohexane, ug/kg dw	<5.0
2-Chloroethylvinyl Ether, ug/kg dw	<50
Chloromethane, ug/kg dw	<5.0
Chlorotoluene, ug/kg dw	<5.0
Dibromochloromethane, ug/kg dw	<5.0
Dibromomethane, ug/kg dw	<5.0
1,2-Dichlorobenzene, ug/kg dw	<5.0
1,3-Dichlorobenzene, ug/kg dw	<5.0
1,4-Dichlorobenzene, ug/kg dw	<5.0
Dichlorodifluoromethane, ug/kg dw	<5.0
1,1-Dichloroethane, ug/kg dw	<5.0
1,2-Dichloroethane, ug/kg dw	<5.0
1,1-Dichloroethene, ug/kg dw	<5.0
Cis/trans-1,2-dichloroethylene, ug/kg dw	<5.0

SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

414 SW 12th Avenue • Deerfield Beach, Florida 33442 • (305) 421-7400 • Fax (305) 421-2584

LOG NO: D1-10896

Received: 22 APR 91

Mr. Joe Farry
ABB Environmental Services, Inc.
1275 SW 46th Avenue, #1805
Pompano Beach, Florida 33069

Project: ABB Power (#06405-30)

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	SAMPLED BY
10896-2	A/C FD (04.22.91)	Client

PARAMETER	10896-2
Methylene Chloride, ug/kg dw	<5.0
1,2-Dichloropropane, ug/kg dw	<5.0
1,3-Dichloropropylene, ug/kg dw	<5.0
1,1,2,2-Tetrachloroethane, ug/kg dw	<5.0
1,1,1,2-Tetrachloroethane, ug/kg dw	<5.0
Tetrachloroethylene, ug/kg dw	<5.0
1,1,1-Trichloroethane, ug/kg dw	<5.0
1,1,2-Trichloroethane, ug/kg dw	<5.0
Trichloroethene, ug/kg dw	<5.0
Trichlorofluoromethane, ug/kg dw	<5.0
Trichloropropane, ug/kg dw	<5.0
Vinyl Chloride, ug/kg dw	<5.0
Benzene, ug/kg dw	<5.0
Ethylbenzene, ug/kg dw	<5.0
Toluene, ug/kg dw	<5.0
Xylenes, ug/kg dw	<5.0
Methyl-tert-butyl ether (MTBE), ug/kg dw	<50
Date Analyzed	04.27.91

SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

414 SW 12th Avenue • Deerfield Beach, Florida 33442 • (305) 421-7400 • Fax (305) 421-2584

LOG NO: D1-10896

Received: 22 APR 91

Mr. Joe Farry
ABB Environmental Services, Inc.
1275 SW 46th Avenue, #1805
Pompano Beach, Florida 33069

Project: ABB Power (#06405-30)

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	SAMPLED BY
10896-2	A/C FD (04.22.91)	Client

PARAMETER	10896-2
Polynuclear Aromatic Hydrocarbons (8100)	
Acenaphthene, ug/kg dw	<200
Acenaphthylene, ug/kg dw	<200
Benzo(a)pyrene, ug/kg dw	<200
Benzo(g,h,i)perylene, ug/kg dw	<200
Benzo(b,k)fluoranthene, ug/kg dw	<200
Chrysene + Benzo(a)anthracene, ug/kg dw	<200
Fluoranthene, ug/kg dw	<200
Fluorene, ug/kg dw	<200
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene, ug/kg dw	<200
Naphthalene, ug/kg dw	<200
Phenanthrene + Anthracene, ug/kg dw	<200
Pyrene, ug/kg dw	<200
2-Methylnaphthalene, ug/kg dw	<200
1-Methylnaphthalene, ug/kg dw	<200
Petroleum Hydrocarbons (9073) , mg/kg dw	11
Arsenic (TCLP), mg/l	<0.20
Barium (TCLP), mg/l	0.058
Cadmium (TCLP), mg/l	<0.010
Chromium (TCLP), mg/l	0.11
Lead (TCLP), mg/l	<0.10
Mercury in TCLP Extract (7470), mg/l	<0.020
Selenium (TCLP), mg/l	<0.20
Silver (TCLP), mg/l	0.041
Arsenic, mg/kg dw	<1.0
Barium, mg/kg dw	7.7

SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

414 SW 12th Avenue • Deerfield Beach, Florida 33442 • (305) 421-7400 • Fax (305) 421-2584

LOG NO: D1-10896

Received: 22 APR 91

Mr. Joe Farry
ABB Environmental Services, Inc.
1275 SW 46th Avenue, #1805
Pompano Beach, Florida 33069

Project: ABB Power (#06405-30)

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	SAMPLED BY
10896-2	A/O FD (04.22.91)	Client

PARAMETER	10896-2
Cadmium, mg/kg dw	<0.50
Chromium, mg/kg dw	21
Lead, mg/kg dw	1.5
Mercury, mg/kg dw	0.060
Selenium, mg/kg dw	*<10
Silver, mg/kg dw	3.9
Chloride, mg/kg dw	<20
Potassium, mg/kg dw	<100
Sodium, mg/kg dw	200
Total halogens, mg/kg dw	260
Percent Solids, %	80

*Elevated detection limit was reported due to sample matrix interference.

SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

414 SW 12th Avenue • Deerfield Beach, Florida 33442 • (305) 421-7400 • Fax (305) 421-2584

LOG NO: D1-10992

Received: 01 MAY 91

Mr. Jim Bowen
IT Environmental
466 S.W. 12th Avenue
Deerfield Beach, Florida 33442

Purchase Order: #037504

Project: (#585266) Star Ent.

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	SAMPLED BY
10992-1	Composite Soils (05.01.91)	Client

PARAMETER	10992-1
Methylene Chloride, ug/kg dw	ND
1,2-Dichloropropane, ug/kg dw	ND
1,3-Dichloropropylene, ug/kg dw	ND
1,1,2,2-Tetrachloroethane, ug/kg dw	ND
1,1,1,2-Tetrachloroethane, ug/kg dw	ND
Tetrachloroethylene, ug/kg dw	ND
1,1,1-Trichloroethane, ug/kg dw	ND
1,1,2-Trichloroethane, ug/kg dw	ND
Trichloroethene, ug/kg dw	ND
Trichlorofluoromethane, ug/kg dw	ND
Trichloropropane, ug/kg dw	ND
Vinyl Chloride, ug/kg dw	ND
Benzene, ug/kg dw	ND
Ethylbenzene, ug/kg dw	260
Toluene, ug/kg dw	41
Xylenes, ug/kg dw	4400
Methyl-tert-butyl ether (MTBE), ug/kg dw	ND
Petroleum Hydrocarbons (9073) , mg/kg dw	730
Arsenic, mg/kg dw	ND
Barium, mg/kg dw	7.6
Cadmium, mg/kg dw	2.4
Chromium, mg/kg dw	4.7
Lead, mg/kg dw	6.3
Mercury, mg/kg dw	0.051
Selenium, mg/kg dw	*ND
Silver, mg/kg dw	ND

*Elevated detection limit was reported due to sample matrix interference.
Dilution factor = 5.

SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

414 SW 12th Avenue • Deerfield Beach, Florida 33442 • (305) 421-7400 • Fax (305) 421-2584

LOG NO: D1-10992

Received: 01 MAY 91

Mr. Jim Bowen
IT Environmental
466 S.W. 12th Avenue
Deerfield Beach, Florida 33442

Purchase Order: #037504

Project: (#585266) Star Ent.

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	SAMPLED BY
10992-1	Composite Soils (05.01.91)	Client

PARAMETER	10992-1
Volatiles (8010/8020)	
Benzyl chloride, ug/kg dw	ND
Bromobenzene, ug/kg dw	ND
Bromodichloromethane, ug/kg dw	ND
Bromoform, ug/kg dw	ND
Bromomethane, ug/kg dw	ND
Carbon Tetrachloride, ug/kg dw	ND
Chlorobenzene, ug/kg dw	ND
Chloroethane, ug/kg dw	ND
Chloroform, ug/kg dw	ND
1-Chlorohexane, ug/kg dw	ND
2-Chloroethylvinyl Ether, ug/kg dw	ND
Chloromethane, ug/kg dw	ND
Chlorotoluene, ug/kg dw	ND
Dibromochloromethane, ug/kg dw	ND
Dibromomethane, ug/kg dw	ND
1,2-Dichlorobenzene, ug/kg dw	ND
1,3-Dichlorobenzene, ug/kg dw	ND
1,4-Dichlorobenzene, ug/kg dw	ND
Dichlorodifluoromethane, ug/kg dw	ND
1,1-Dichloroethane, ug/kg dw	ND
1,2-Dichloroethane, ug/kg dw	ND
1,1-Dichloroethene, ug/kg dw	ND
Cis/trans-1,2-dichloroethylene, ug/kg dw	ND

LANSING LABORATORIES, INC.

4111 S.W. 47th Avenue, Suite 315, Davie, Florida 33314

Tel: (305) 581-2372

Water Restoration, Inc
4111 S.W. 47th Avenue, Suite 315
Davie, FL 33314

Attn:

REPORT DATE: 05/29/91
REPORT #: 0089
DER QAP #: 900278G

REPORT OF ANALYSIS FOR:
ID: SOIL #1
MATRIX: COMPOSITE SOIL
LOCATION: Fire Sta #9, City Ft LDL

SAMPLE COLLECTED: 05/17/91
SAMPLE RECEIVED: 05/17/91
COLLECTED BY: YOUR REPRESENTATIVE

TESTS	METHOD	RESULTS	DL	UNITS	DATE
Dichlorodifluoromethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Chloromethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Vinyl chloride	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Bromomethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Chloroethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Trichlorofluoromethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,1-Dichloroethene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Methylene chloride	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
trans-1,2-Dichloroethene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,1-Dichloroethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Chloroform	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,1,1-Trichloroethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Carbon tetrachloride	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,2-Dichloroethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Trichloroethene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,2-Dichloropropane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Bromodichloromethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
2-Chloroethylvinyl ether	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
cis-1,3-Dichloropropene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
trans-1,3-Dichloropropene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,1,2-Trichloroethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Tetrachloroethene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Dibromochloromethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91

ANALYSIS PERFORMED IN ACCORDANCE WITH E.P.A., A.S.T.M., OR OTHER APPROVED METHODS

RESPECTFULLY SUBMITTED,

MADELINE M. WU
DIRECTOR

DL = DETECTION LIMIT
BDL = BELOW DETECTION LIMIT

LANSING LABORATORIES, INC.

4111 S.W. 47th Avenue, Suite 315, Davie, Florida 33314

Tel: (305) 581-2372

Water Restoration, Inc
4111 S.W. 47th Avenue, Suite 315
Davie, FL 33314

Attn:

REPORT DATE: 05/29/91
REPORT #: 0089
DER QAP #: 900278G

REPORT OF ANALYSIS FOR:
ID: SOIL #1
MATRIX: COMPOSITE SOIL
LOCATION: Fire Sta #9, City Ft LDL

SAMPLE COLLECTED: 05/17/91
SAMPLE RECEIVED: 05/17/91
COLLECTED BY: YOUR REPRESENTATIVE

TESTS	METHOD	RESULTS	DL	UNITS	DATE
Chlorobenzene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Bromoform	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,1,2,2-tetrachloroethane	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,3-Dichlorobenzene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,4-Dichlorobenzene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
1,2-Dichlorobenzene	E.P.A. 8010	BDL	500.	UG/KG	05/27/91
Methyl-tert-butyl-ether	E.P.A. 8020	BDL	500.	UG/KG	05/27/91
Benzene	E.P.A. 8020	BDL	500.	UG/KG	05/27/91
Toluene	E.P.A. 8020	BDL	500.	UG/KG	05/27/91
Chlorobenzene	E.P.A. 8020	BDL	500.	UG/KG	05/27/91
Ethylbenzene	E.P.A. 8020	BDL	500.	UG/KG	05/27/91
Xylenes, Total	E.P.A. 8020	2752.2	500.	UG/KG	05/27/91
1,3-Dichlorobnezene	E.P.A. 8020	BDL	500.	UG/KG	05/27/91
1,4-Dichlorobnezene	E.P.A. 8020	BDL	500.	UG/KG	05/27/91
1,2-Dichlorobnezene	E.P.A. 8020	BDL	500.	UG/KG	05/27/11
Arsenic	E.P.A. 7061	2.2	0.1	MG/KG	05/27/91
Barium	E.P.A. 7080	65.	10.	MG/KG	05/27/91
Cadmium	E.P.A. 7130	1.7	1.	MG/KG	05/27/91
Chromium	E.P.A. 7190	8.6	1.	MG/KG	05/27/91
Lead	E.P.A. 7420	20.8	1.	MG/KG	05/27/91

ANALYSIS PERFORMED IN ACCORDANCE WITH E.P.A., A.S.T.M., OR OTHER APPROVED METHODS

RESPECTFULLY SUBMITTED,

MADELINE M. WU

DL = DETECTION LIMIT

LANSING LABORATORIES, INC.

4111 S.W. 47th Avenue, Suite 313, Davie, Florida 33314

Tel: (305) 581-2372

Water Restoration, Inc
4111 S.W. 47th Avenue, Suite 315
Davie, FL 33314

Attn:

REPORT DATE: 05/29/91
REPORT #: 0089
DER QAP #: 900278G

REPORT OF ANALYSIS FOR:
ID: SOIL #1
MATRIX: COMPOSITE SOIL
LOCATION: Fire Sta #9, City Ft LDL

SAMPLE COLLECTED: 05/17/91
SAMPLE RECEIVED: 05/17/91
COLLECTED BY: YOUR REPRESENTATIVE

TESTS	METHOD	RESULTS	DL	UNITS	DATE
Mercury	E.P.A. 7471	BDL	0.1	MG/KG	05/27/91
Selenium	E.P.A. 7741	BDL	0.1	MG/KG	05/27/91
Silver	E.P.A. 7760	4.5	1.	MG/KG	05/27/91

ANALYSIS PERFORMED IN ACCORDANCE WITH E.P.A., A.S.T.M., OR OTHER APPROVED METHODS.

RESPECTFULLY SUBMITTED,

MADELINE M. WU
DIRECTOR

DL = DETECTION LIMIT
BDL = BELOW DETECTION LIMIT

PAUL R. MCGINNES AND ASSOCIATES
CONSULTING LABORATORIES, INC.

4168 WESTROADS DRIVE - WEST PALM BEACH, FLORIDA 33407-1241 - (407) 842-2849

ENVIRONMENTAL CONSULTING
1947 10th AVENUE NORTH
LAKE WORTH, FL 33461

9106301-01A
Report Date: 07/08/91

Attn: Mr. Paul Streifel

Project ID: AL PACKER
Sample ID: STOCK PILE SOIL

Date Received: 06/26/91
Date Collected: 06/25/91 14:45:00

Soil sample collected by client using laboratory-supplied containers.

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
VOLATILE ORGANICS (8010)	SW 5030/8021		ug/kg		06/27/91	HLW
Benzyl chloride		<2.0		2.0		
Bis(2-chloroethoxy)methane		<2.0		2.0		
Bis(2chloroisopropyl)ether		<2.0		2.0		
Bromobenzene		<1.0		1.0		
Bromodichloromethane		<0.5		0.5		
Bromoform		<10.0		10.0		
Bromomethane		<10.0		10.0		
Carbon tetrachloride		<2.5		2.5		
Chloroacetaldehyde		<2.0		2.0		
Chlorobenzene		<2.5		2.5		
Chloroethane		<2.5		2.5		
Chloroform		<2.5		2.5		
1-Chlorohexane		<2.0		2.0		
2-Chloroethyl vinyl ether		<2.0		2.0		
Chloromethane		<2.5		2.5		
Chloromethylmethyl ether		<2.0		2.0		
Chlorotoluene		<2.5		2.5		
Dibromochloromethane		<2.5		2.5		
Dibromomethane		<25.0		25.0		
1,2-Dichlorobenzene		<2.5		2.5		
1,3-Dichlorobenzene		<2.5		2.5		
1,4-Dichlorobenzene		<2.5		2.5		
Dichlorodifluoromethane		<2.5		2.5		
1,1-Dichloroethane		<2.5		2.5		
1,2-Dichloroethane		<2.5		2.5		
1,1-Dichloroethylene		<2.5		2.5		
trans-1,2-Dichloroethylene		<2.5		2.5		
Dichloromethane		<2.0		2.0		
1,2-Dichloropropane		<2.5		2.5		
trans-1,3Dichloropropylene		<2.0		2.0		
1,1,2,2-Tetrachloroethane		<1.0		1.0		

PAUL R. MCGINNESS AND ASSOCIATES
CONSULTING LABORATORIES, INC.

4168 WESTROADS DRIVE - WEST PALM BEACH, FLORIDA 33407-1241 - (407) 842-2849

Project ID: AL PACKER
Sample ID: STOCK PILE SOIL

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
(Continued)						
1,1,1,2-Tetrachloroethane		<1.0		1.0		
Tetrachloroethylene		<2.5		2.5		
1,1,1-Trichloroethane		<1.0		1.0		
1,1,2-Trichloroethane		<2.5		2.5		
Trichloroethylene		<1.0		1.0		
Trichlorofluoromethane		<1.0		1.0		
Trichloropropane		<2.0		2.0		
Vinyl chloride		<1.0		1.0		
VOLATILE ORGANICS (8020)						
Benzene		<5.0		5.0		
Ethylbenzene		<5.0		5.0		
Toluene		<5.0		5.0		
o-Xylene		<5.0		5.0		
m & p Xylene		<5.0		5.0		
Methyltertiarybutylether		<25.0		25.0		
Total Silver, Ag	EPA 7761	<1	mg/kg	1	06/28/91	RAC
Total Arsenic, As	EPA 7060	<0.4	mg/kg	0.4	06/27/91	RAC
Total Barium, Ba	EPA 7080	3	mg/kg	2	06/28/91	RAC
Total Cadmium, Cd	EPA 7130	<0.5	mg/kg	0.5	06/28/91	RAC
Chloride, Cl-	EPA 9252	<16	mg/kg	16	07/02/91	DJG
Total Chromium, Cr	EPA 7191	1.5	mg/kg	0.5	06/28/91	RAC
Total Mercury, Hg	EPA 7471	<0.02	mg/kg	0.02	06/28/91	RAC
Total Potassium, K	EPA 7610	<50	mg/kg	50	06/28/91	RAC
Sodium, Na	EPA 7770	130	mg/kg	50	06/28/91	RAC
Total Lead, Pb	EPA 7421	1.4	mg/kg	0.2	06/27/91	RAC
Total Selenium, Se	EPA 7740	<1	mg/kg	1	06/27/91	RAC
Tot.Recov.Pet.Hydrocarbon	EPA 9073	<5	mg/kg	5	06/27/91	JHW

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

In the matter of an
Application for Permit by:

DER File No. AC 13-187599
Dade County

Mr. James S. Jenkins III
Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

_____/

Enclosed is Permit Number AC 13-187599 to construct (modify) a stationary 25 TPH soil remediation unit, issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 9-24-91 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

Kim Tober (Clerk) 9-24-91 (Date)

RECEIVED
SEP 27 1991
DEPT. OF ENVIRONMENTAL REG.
WEST PALM BEACH

Copies furnished to:
J. Harper, EPA
I. Goldman, SE Dist.
P. Wong, DERM
Satish Kastury, HWR

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Carol M. Browner

FROM: Steve Smallwood

DATE: September 19, 1991

SUBJ: Approval of Construction Permit AC 13-187599
Rinker Materials Corporation

Attached for your approval and signature is a permit prepared by the Bureau of Air Regulation for the above mentioned company to construct a stationary 40 TPH soil remediation unit at Rinker's Portland cement plant in Miami, Dade County, Florida.

Mercury may be emitted in trace quantities from this operation, less than 0.1 TPY. This quantity of mercury will not have a measurable impact on the environment.

Comments were submitted by Dade County Department of Environmental Resources Management (DERM). DERM requested the Department evaluate the potential ground level impacts of the metals emissions. This is addressed in the Final Determination and did not result in any change to the proposed permit.

I recommend your approval and signature.

SS/WH/plm

Attachments

Final Determination

Rinker Materials Corporation
Miami, Dade County, Florida

Stone Dryer Modification

Permit No.: AC 13-187599

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

September 11, 1991

Final Determination

The revised Technical Evaluation and Preliminary Determination for the permit to construct (modify) the existing stone dryer at Rinker Materials Corporation's Portland cement manufacturing plant located at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679, was distributed on July 17, 1991. The Notice of Intent to Issue was published in the Miami Herald on July 24, 1991. Copies of the evaluation were available for public inspection at the Dade County Department of Environmental Resources Management's (DERM) office in Miami and the Department's offices in West Palm Beach and Tallahassee.

Comments were submitted by DERM. The Department was requested to evaluate the potential ground level impacts of the metals emissions from the dryer. Using the stack parameters listed in the application, the maximum allowable particulate matter emissions listed in the proposed permit, and assuming the metal concentration in the particulate matter emissions were the maximum allowed in the untreated soil, the maximum concentration predicted to be in the ambient air was calculated and the results are shown in the following table.

Metal	Max ppm in soil	Max Metal Emission, g/s	Maximum AAQ Impact (ug/m^3) 1 hr	8 hr	24 hr	Annual	No Threat Level (ug/m^3) 8 hr	24 hr	Annual
Arsenic	55	$2.3x10^{-5}$	$1.4x10^{-4}$	$1x10^{-4}$	$5.7x10^{-5}$	$1.4x10^{-5}$	2	0.48	$2.3x10^{-4}$
Barium	2750	$1.2x10^{-3}$	$7.4x10^{-3}$	$5.2x10^{-3}$	$3.0x10^{-3}$	$7.4x10^{-4}$	5	1.2	50
Cadmium	55	$2.3x10^{-5}$	$1.4x10^{-4}$	$1x10^{-4}$	$5.7x10^{-5}$	$1.4x10^{-5}$	0.5	0.12	$5.6x10^{-4}$
Chromium	275	$1.2x10^{-4}$	$7.4x10^{-4}$	$5.2x10^{-4}$	$3.0x10^{-4}$	$7.4x10^{-5}$	0.5	0.12	$8.3x10^{-5}$
Lead	77	$3.2x10^{-5}$	$2x10^{-4}$	$1.4x10^{-4}$	$7.9x10^{-5}$	$2x10^{-5}$	1.5	0.36	$9x10^{-2}$
Mercury	17	$7.1x10^{-6}$	$4.4x10^{-5}$	$3.1x10^{-5}$	$1.8x10^{-5}$	$4.4x10^{-6}$	0.5	0.12	0.3
Selenium	165	$6.9x10^{-5}$	$4.3x10^{-4}$	$3x10^{-4}$	$1.7x10^{-4}$	$4.3x10^{-5}$	2	0.48	
Silver	165	$6.9x10^{-5}$	$4.3x10^{-4}$	$3x10^{-4}$	$1.7x10^{-4}$	$4.3x10^{-5}$	0.1	$24x10^{-2}$	3

None of the metal impacts are predicted to exceed the No Threat Level.

Data from tests required by the construction permit will be used to confirm the assumptions used in the evaluation of the metals ambient impact.

The final action of the Department will be to issue construction permit No. AC 13-187599 as proposed in the revised Technical Evaluation and Preliminary Determination.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

ID # 50DAD130014

PERMITTEE:
Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

Permit Number: AC 13-187599
Expiration Date: March 30, 1992
County: Dade
Latitude/Longitude: 25°46'48"N
80°25'10"W
Project: Modification of the Stone Dryer

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Authorization to modify the existing stone dryer system to decontaminate up to 40 TPH of soil containing petroleum products (gasoline, No. 2-6 fuel oils, and motor oil). Major components of the system are Gencor Ultraflame low excess air oil burners for the existing 7 ft. diameter by 80 ft. long rotary dryer, an 85% efficient Joy-Western multicyclone, a 99.9% efficient Micropul baghouse with 3,366 sq. ft. of cloth area, a 99.5% efficient natural gas fired IT/McGill afterburner capable of 0.75 seconds residence time at 1600°F, two heat exchangers for energy recovery, a raw material gallery controlled with a Micropul baghouse that discharges approximately 500 acfm at 400°F through a 1.0 ft. square stack that is 45 ft. high, material handling equipment (screens, inclined belt feeders, bucket elevator, crusher, and stacker), fuel systems (used petroleum oil meeting the provisions of 40 CFR 266, Subpart E, and No. 2 fuel oil for the dryer, and natural gas for the afterburner), a by-pass stack to be used only when the kiln is drying stone, and associated equipment. Air pollutants from the dryer are discharged in approximately 36,500 acfm of 800°F flue gases through a 4.5 ft. diameter by 80 ft. high stack.

This system is located at the permittee's Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The UTM coordinates of this site are Zone 17, 558.2 km E and 2851.3 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application received Dec. 10, 1990.
2. Rinker's letter dated Feb. 22, 1991.
3. Environmental Quality Management, Inc. letter dated Mar. 5, 1991.
4. Environmental Quality Management, Inc. letter dated May 8, 1991.
5. DERM letter dated Jun. 27, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for

GENERAL CONDITIONS:

continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this facility shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The afterburner shall be capable of operating above 1600°F with a 0.75 second retention time. It shall have a minimum VOC destruction efficiency of 98.8 percent.

Emission Restrictions

4. Particulate matter emissions from the afterburner shall neither exceed 0.04 grains/dscf, nor 3.3 lbs/hr (max.)/1.0 lbs/hr (avg.).

SPECIFIC CONDITIONS:

Lead emissions shall not exceed 0.13 lbs/hr. Particulate matter emissions from the fugitive dust baghouse shall not exceed 0.02 grains/dscf, nor 0.5 lbs/hr. Visible emissions from any part of the process shall not exceed 5% opacity.

5. Benzene emissions from the afterburner shall not exceed 1.5 lbs/hr. Total VOC emissions shall not exceed 5.5 lbs/hr. Compliance shall be determined by a material balance using soil analysis, production rate, and the afterburner destruction efficiency.

6. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

7. The system shall be properly operated and maintained (F.A.C. Rule 17-2.210(2)). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly (F.A.C. Rule 17-2.240). The afterburner must be in service any time the stone dryer is used to decontaminate soil. The use of the afterburner is not required when the unit is used to dry stone.

8. Reasonable precautions shall be used to minimize unconfined emissions of particulate matter generated by this operation (F.A.C. Rule 17-2.610(3)). The permittee shall haul the soil in covered trucks, promptly clean-up spills, and wet the area when dry to minimize wind blown dust.

9. The unit shall not be operated in a manner that may create a nuisance.

10. Untreated soil shall be covered with a plastic sheet while in storage.

11. This unit shall be allowed to operate continuously, 24 hours per day, 7 days per week, and 52 weeks per year. The permittee shall maintain a log that shows the process (soil decontamination or stone drying), time, and dates the unit was operated.

12. Use of the existing cement kiln to decontaminate soil shall cease when the stone dryer begins operation as a soil

SPECIFIC CONDITIONS:

decontamination unit or when this construction permit expires, whichever event occurs first.

13. Maximum soil charging rate to the unit shall not exceed 40 TPH. The permittee shall measure and record the hourly feed or production rate of the system.

14. The dryer is authorized to burn up to 27.4 MMBtu/hr of waste oil (193 GPH) containing a maximum of 0.4% sulfur and 500 ppm lead, No. 2 distillate oil (193 GPH) containing a maximum of 0.5% sulfur, and/or natural gas (460 CFM). The maximum fuel oil consumption shall not exceed 769,459 gallons in any 12 month period.

15. The fume incinerator is authorized to burn up to 15.0 MMBtu/hr of natural gas (250 CFM). The fume incinerator shall be in service any time the stone dryer is being used to process material containing contaminated soil. The by-pass stack must be closed when the unit is processing contaminated soil.

16. Only soils contaminated with virgin (non-recycled) petroleum fuels and lubricants, and "on-spec" used oils shall be treated in this unit. The soil decontamination system shall neither be used to thermally process materials that are listed in 40 CFR 261.31, 261.32, 261.33 (revised as of July 1, 1990) nor materials that have the hazardous characteristics of corrosivity, reactivity, and EP toxicity. Prior to the acceptance of contaminated materials for processing, the permittee shall obtain reasonable assurance that the soil is contaminated with only virgin and/or "on specification" petroleum products. Reasonable assurance may be obtained by the sampling of the soil, by certification from owners regarding the history of the site, or by any other documentation or submission approved by the Department's Southeast District in such regard. If reasonable assurance is not available, the soil shall be assumed to be contaminated with "off-spec" material.

17. Only soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel, and motor oils) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation.

Hazardous waste as defined in 40 CFR 261.3 shall not be processed by this unit.

Metals in the soils to be treated shall not exceed the following:

SPECIFIC CONDITIONS:

Metals	Maximum Concentration TCLP(mg/L)	Total(mg/Kg)
Arsenic	5.0	55
Barium	100.0	2750
Cadmium	1.0	55
Chromium	5.0	275
Lead	5.0	77
Mercury	0.2	17
Selenium	1.0	165
Silver	5.0	165

Total Volatile Organic Aromatics (VOA) constituent in the soil shall not exceed the concentrations that have the potential to exceed the Acceptable Ambient Concentration or the VOC emission limit for this unit (see Specific Conditions Nos. 5 and 19).

To show compliance with this condition, the permittee shall analyze composite samples of the contaminated soil (see Specific Condition No. 18) by the EPA SW 846 Methods, Test Method for Evaluating Solid Waste Physical/Chemical, for VOA (EPA Method 5030/8020), TRPH (EPA draft Method 9073), and Metals (EPA Method 1311, 3050, 6010, 7040, 7041, 7060, 7061, 7080, 7130, 7131, 7190, 7191, 7420, 7421, 7471, and 7760). All soil samples taken at the remediation site and from the soil exiting the dryer shall be stored in a sealed clean glass container immediately upon sampling.

18. The permittee may request, in writing, permission to treat materials not meeting the specifications in F.A.C. Rule 17-775. The request to the Division of Air Resources Management shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. Public notice may be required for Department as a part of Department review. The Department will approve or deny each request in writing on a case-by-case basis.

19. Sampling and analysis of the contaminated soil, based on the procedures prescribed in SW-846, shall be conducted prior to remediation. Minimum number of composite samples for analysis at each site prior to remediation shall be as follows:

SPECIFIC CONDITIONS:

Soil Quantity ($yards^3$)	No. of Composite Samples
Less than 100	1
100 to 500	3
500 to 1000	5
Each additional 500 yds	1 additional sample

20. Unless the Department has determined other concentrations are required to protect public health and safety, predicted ambient air impact of any toxic pollutant, as determined by the PTPLU 6 model or other DARM approved models, shall not exceed the concentration calculated by the following formula:

$$AAC = \frac{40}{X} \cdot \frac{1}{\text{safety factor}} \cdot (OEL)$$

where,

AAC = Acceptable Ambient Concentration

Safety Factor = 100 for category A substances and
50 for category B substances

X = 40 or the hours/week of actual operation, whichever is larger

OEL - Occupational exposure level such as the TWA-TLV published by the ACGIH, OSHA, and NIOSH published standards for toxic materials.

TWA-TLV is the threshold limit value (8 hrs/day, 40 hrs/wk) maximum exposure concentration considered safe for workers by the ACGIH.

Data in the application shows that, for continuous operation, an emission of 1 gram/sec will have a maximum ambient impact of 6.2×10^{-3} mg/m^3 (1 hr.), 4.34×10^{-3} mg/m^3 (8 hr.), and 0.62×10^{-3} mg/m^3 (annual). If the stack parameters are different than the values listed in the application, the permittee must determine and use the actual impact factor calculated by the EPA Approved Screen - 1.1 Model or other DARM approved models.

$$\text{Maximum Allowable Emissions (g/sec)} = \frac{AAC \quad mg/m^3}{\text{Max. Impact of 1 g/s } (mg/m^3)}$$

SPECIFIC CONDITIONS:

21. Pressure drop across the dryer's baghouse and temperature of the afterburner shall be recorded continuously during soil decontamination operations. The instruments used to obtain these measurements shall be properly calibrated, maintained, and in operation any time the unit is in service. The baghouse and the afterburner must be fully operational, as demonstrated by continuous monitoring instrumentation on the unit, whenever the system is being used to decontaminate soil. The baghouse shall be fully operational when the system is being used to dry stone.

Compliance Requirements

22. This unit shall be tested at a process weight rate of 36 to 40 TPH. All compliance tests shall meet the requirements listed in F.A.C. Rule 17-2.700. The unit shall not operate above the maximum permitted rate of 40 TPH of contaminated soil.

23. When the Department, after investigation, has good reason (such as complaints, increased visible emissions, or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Chapter 17-2, F.A.C., or in this permit is being violated, it may require the owner or operator of the unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the Department.

24. The exhaust stack for this process must be tested concurrently for particulate matter and visible emissions by EPA Methods 5 and 9 pursuant to 40 CFR 60, Appendix A, revised as of July 1, 1990, within 30 days after placing the unit in commercial operation under this permit and annually thereafter. The initial test and any test data submitted with an application for permit to operate (every 5 years) shall include analysis of the filter and impinger catch for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver along with similar analysis of the contaminated and treated soil processed during the test.

25. The unit destruction efficiency, benzene, and VOC emissions shall be established by a material balance using process weight, soil analysis and either Method 18 or 25 test (40 CFR 60, Appendix A, revised as of July 1, 1990) or other methods as approved by the Department. The afterburner temperature that existed during the compliance test shall be specified as the minimum operation temperature in any permit to operate issued for this unit.

SPECIFIC CONDITIONS:

Administrative Requirements

26. This permit requires compliance with any applicable local (county) regulations. This may include requirements for a county operation permit.

27. The Southeast District shall be notified in writing at least 15 days in advance of any annual compliance test to be conducted on this source.

28. Any analysis required by Specific Condition No. 17 which indicates a violation of any condition in this permit shall be reported as soon as feasible to the Southeast District. An average concentration of benzene above 1,600 ppm in the soil or total hydrocarbons above 6,000 ppm or metal concentrations above that listed in Specific Condition No. 17 is a potential violation of this permit. The soil may be decontaminated by operating at less than the 40 TPH production rate, or other means, with prior approval of the Department. The permittee must propose the method of compliance with this permit. The burning of waste oil containing more than 500 ppm lead is prohibited by this permit.

29. Records shall be kept by the permittee on the location, date, time, and number of samples taken for each composite sample. Soil analysis results shall be available for Department inspection for minimum of 3 years.

30. Stack test results for PM and VOC shall be submitted to the Department (Southeast District) within 45 days of the test.

31. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

32. An application for an operation permit must be submitted to the Southeast District at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed

SPECIFIC CONDITIONS:

noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this 23 day
of September, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Carol M. Browner, Secretary

Rinker Materials

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

August 26, 1991

Mr. John W. Renfrow, P.E.
Environmental Resources Management
Suite 1310
111 NW 1st Street
Miami, FL 33128-1971

Dear Mr. Renfrow:

Rinker expects receipt of all applicable materials substitution permits in the next few weeks. There has been much constructive dialogue between DERM and Rinker, and the assistance of your department in resolving the numerous hurdles is greatly appreciated. Construction of the materials storage building will begin soon with anticipated completion by mid December. Engineering for the dryer conversion has been completed and equipment is being ordered. We are moving to complete this project as quickly as possible. However, due to the delay in obtaining our permits we anticipate requiring an extension to process soils in the kilns beyond December 1991. When all equipment supplies confirm delivery dates we will advise you of a firm completion date.

If you have any questions please let me know. Again, your help and cooperation is greatly appreciated.

Very truly,

James S. Jenkins III

James S. Jenkins III
Vice President Cement Operations

cc: Claire Fancy ✓
Isidore Goldman
Rick Poley
Mike Vardeman
Bill Voshell
Pat Wong
File

Rinker Materials

RECEIVED

AUG 19 1991

Division of Air
Resources Management

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

August 15, 1991

Department of Environmental Regulation
Bureau of Air Regulation - Claire Fancy
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Notice of Intent to Issue

Enclosed is the notarized notification of publication for your records.

If their are any questions, please notify me.

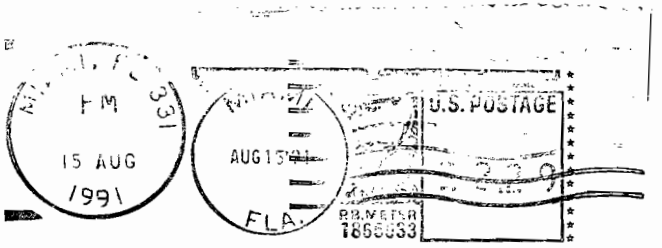
Very truly yours,

Michael D. Vardeman
Manager Materials Substitution

cc: Stephanie Brooks
Patrick Wong

Rinker Materials

Rinker Materials Corporation
P.O. Box 650679
Miami, FL 33165-0679



DEPARTMENT OF ENVIRONMENTAL REGULATION
Bureau of Air Regulation - Claire Fancy
2600 Blair Stone Road
Tallahassee, FL 32399-2400

The Miami Herald

PUBLISHED DAILY
MIAMI — DADE — FLORIDA

STATE OF FLORIDA
COUNTY OF DADE:

Before the undersigned authority personally appeared

ANN MARTULA

who on oath says that he/she is

CUSTODIAN OF RECORDS

of The Miami Herald, a daily newspaper published at Miami in Dade County, Florida; that the attached copy of advertisement was published in said newspaper in the issues of

JULY 24, 1991

Affiant further says that the said The Miami Herald is a newspaper published at Miami, in the said Dade County, Florida and that the said newspaper has heretofore been continuously published in said Dade County, Florida, each day and has been entered as second class mail matter at the post office in Miami, in said Dade County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Ann Martula

Sworn to and subscribed before me this 24th day of July A.D. 1991

My commission expires

SILVIA A. COSTA
NOTARY PUBLIC STATE OF FLORIDA
NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. MAR. 18, 1995
BONDED THRU GENERAL INS. UND.
STATE OF FLORIDA

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation gives notice of its intent to issue a permit (AC 13-187599) to Rinker Materials Corporation, Post Office Box 650679, Miami, Florida 33265-0679, to construct (modify) the existing stone dryer by the addition of low nitrogen oxides burners, baghouses, and a fume incinerator, so that it can decontaminate up to 40 TPH of soils containing petroleum fuels and lubricants. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The regulations do not require a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination for this modification. The modified dryer may emit 1 lb/hr (avg.) and 4.4 TPY particulate matter, 0.13 lb/hr and 0.57 TPY lead, 5.5 lbs/hr and 24.0 TPY VOC, 17.2 lbs/hr and 40.2 TPY SO2, 6.3 lbs/hr and 27.8 TPY NOX, and 2.1 lbs/hr and 9.2 TPY CO. These emissions will not cause a violation of any ambient air quality standard or Prevention of Significant Deterioration (PSD) increment. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative (hearing) under Section 120.57, Florida Statutes. The petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number, and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida
32399-2400

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida
33406

Dade County Department of Environmental Resources Management
Jose Marti Building
801 S.W. 3rd Avenue, 2nd Floor
Miami, Florida 33130

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

July 16, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III
Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Attached is one copy of the revised Technical Evaluation and Preliminary Determination and proposed permit to construct (modify) your existing stone dryer. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The modification will allow the dryer to decontaminate soils containing petroleum fuels and lubricants.

This operation will also be subject to F.A.C. Rule 17-775, Soil Thermal Treatment Facilities.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/WH/plm

Attachments

c: J. Harper, EPA
I. Goldman, SE Dist.
P. Wong, DERM
Don Ehlenbeck, BWC
Satish Kastury, HWR

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

DER File No. AC 13-187599

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue an air construction permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Rinker Materials Corporation, applied on October 5, 1990, to the Department of Environmental Regulation for a permit to construct (modify) the existing stone dryer. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The modification will allow the dryer to decontaminate soils containing petroleum fuels and lubricants.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a

hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copies furnished to:

J. Harper, EPA
I. Goldman, SE Dist.
P. Wong, DERM
Don Ehlenbeck, BWC
Satish Kastury, HWR

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 7-17-91.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statuts, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

7-17-91
Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (AC 13-187599) to Rinker Materials Corporation, Post Office Box 650679, Miami, Florida 33265-0679, to construct (modify) the existing stone dryer by the addition of low nitrogen oxides burners, baghouses, and a fume incinerator, so that it can decontaminate up to 40 TPH of soils containing petroleum fuels and lubricants. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The regulations do not require a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination for this modification. The modified dryer may emit 1 lb/hr (avg.) and 4.4 TPY particulate matter, 0.13 lb/hr and 0.57 TPY lead, 5.5 lbs/hr and 24.0 TPY VOC, 17.2 lbs/hr and 40.2 TPY SO_2, 6.3 lbs/hr and 27.8 TPY NOx, and 2.1 lbs/hr and 9.2 TPY CO. These emissions will not cause a violation of any ambient air quality standard or Prevention of Significant Deterioration (PSD) increment. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Dade County Department of Environmental
Resources Management
Jose Marti Building
801 S.W. 3rd Avenue, 2nd Floor
Miami, Florida 33130

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Revised
Technical Evaluation
and
Preliminary Determination

Rinker Materials Corporation
Miami, Dade County, Florida

Stone Dryer Modification

File No.: AC 13-187599

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

June 27, 1991

I. General Information

A. Applicant

Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

B. Request

On October 5, 1990, Rinker Materials Corporation submitted an application for a permit to construct (modify) the existing stone dryer at their Portland cement manufacturing plant (SIC 3241) by the addition of low NOx burners, baghouses, and a fume incinerator. This control equipment was needed so that the stone dryer can be used to decontaminate soils containing petroleum fuels and lubricants. The application was revised and resubmitted on December 10, 1990. Additional information on this project was submitted on February 28, March 5, and May 10, 1991. The application was considered complete on receipt of applicant's March 5, 1991, letter.

C. Project

The applicant is currently decontaminating soil at their facility in the Portland cement manufacturing kiln. The applicant will transfer their soil decontaminating operation from the Portland cement manufacturing kiln to their stone dryer (AO 13-127621). Soil decontamination involves heating the contaminated soil to evaporate the petroleum products, removing the dust from this gas steam, and burning the evaporated petroleum products. To comply with the Department's policy that requires a minimum of 95% VOC destruction efficiency and other air pollution control regulations for soil decontamination operations, the applicant is installing low NOx burners, a baghouse, and a fume incinerator on the stone dryer. Also included in the project are heat exchangers (heat recovery) and material handling which is controlled by its own baghouse.

D. Emissions

The applicant proposes to decontaminate up to 40 TPH of soils contaminated with an average of 0.6% petroleum fuels and lubricants (gasoline, Nos. 1 thru 6 type fuel oils, and internal combustion engine motor oils) in a rotary kiln that uses up to 27.4 MMBtu/hr heat from waste oil (max. 500 ppm lead), No. 2 fuel oil, and natural gas. Total fuel oil consumption will be limited by the permit to 769,459 gallons per year. Dust from the gases leaving the kiln will be removed by a baghouse and the petroleum fumes will be burned in a 99.5% efficient natural gas fired fume incinerator. A separate baghouse will be used to control fugitive emissions caused by the handling of the treated soil. The unit will be allowed to operate continuously (8,760 hours per year).

Soil thermal treatment facilities emit particulate matter (PM) including lead (Pb) compounds, volatile organic compounds (VOC), and the incomplete and complete products of combustion (SO_2, NO_x, and CO).

The maximum emissions expected from the operation are shown in the following table:

Pollutant	lbs/hr	TPY
PM	3.3 max/1 avg.	4.4
Pb	0.13	0.57
SO_2	17.2 max	40.2*
CO	2.1	9.2
VOC	5.5	24.0
NOx	6.3	27.8

*Restricting fuel oil consumption of the unit to 769,459 gal/yr will reduce potential SO_2 emissions from 75.2 to 40.2 TPY.

The fugitive dust baghouse will emit an additional 0.5 lbs/hr (2.3 TPY) PM.

Visible emissions from both baghouses should not exceed 5% opacity.

The unit will also be used, without the fume incinerator, to dry stones. "Off-spec" used oil containing a maximum of 500 ppm lead may be burned for fuel in the kiln.

II. Rule Applicability

The proposed project, modification of the existing stone dryer, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The source will be located in an area designated nonattainment for ozone (F.A.C. Rule 17-2.410), and attainment for all criteria pollutants (F.A.C. Rule 17-2.420).

The plant is a major facility (F.A.C Rule 17-2.100) because allowable emissions of PM, SO_2, and NOx can exceed 100 TPY for each of these air pollutants. Portland cement plants are on the List of 28, Major Facility Categories (F.A.C. Rule 17-2, Table 500-1). The project is not subject to the Prevention of Significant Deterioration (PSD) regulations (F.A.C. Rule 17-2.500) or the New Source Review for Nonattainment Areas (F.A.C. Rule 17-2.510) because the modification will not result in a significant net increase of any criteria pollutant. The project is subject to F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. Organic (VOC) emissions will be regulated under F.A.C. Rule 17-2.620, General Pollutant Emission Limiting Standards, which restrict emissions to controls as deemed necessary by the Department. The

Department deems 95% destruction of the VOC air pollutants as a minimum standard for this unit. Also, the discharge of air pollutants shall not cause an objectionable odor or an exceedance of any Acceptable Ambient Concentration (AAC) for any toxic pollutant. Other pollutants will be permitted at the emission rates requested by the applicant. Higher emissions could subject this source to other air pollution control regulations.

The source is also subject to F.A.C. Rule 17-775, Soil Thermal Treatment Facilities. The source is also permitted to burn "on-spec" and "off-spec" contaminated soils. These materials are not regulated as hazardous materials or fuels and are not subject to 40 CFR 260-271, including the regulations promulgated in the February 21, 1991, Federal Register, Burning of Hazardous Waste in Boilers and Industrial Furnaces. This evaluation addresses the requirements of F.A.C. Chapter 17-2, Air Pollution, only.

III. Technical Evaluation

Soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel oils, and motor oil) will be processed in the modified stone dryer. The modified dryer may also be operated, without the fume incinerator, to dry stone. "On-spec" and "off-spec" petroleum fuel may be burned in the dryer. The soil may contain "on-spec" and "off-spec" petroleum products. Only natural gas fuel is used in the fume incinerator. Contaminated soil not meeting the specifications in F.A.C. Rule 17-775 cannot be treated without written permission from the Department.

The permittee may request, in writing, permission to treat contaminated soils not meeting the specifications in F.A.C. Rule 17-775. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. Public notice may be required for the materials. The Department will approve or deny each request in writing on a case-by-case basis.

Soil contaminated with petroleum products will be sampled and tested as specified in F.A.C. Rule 17-775 prior to decontamination. The PCB and RCRA tests may be waived if the applicant can provide the Department with reasonable assurance that the soil is contaminated only with "on-spec" and virgin petroleum products.

The modified dryer will be capable of heating up to 40 TPH of contaminated soil to 1500°F using 27.4 MMBtu of "on-spec" waste oil with a maximum of 500 ppm Pb, No. 2 fuel oil with a maximum of 0.5% sulfur, or natural gas fuel. The soil is expected to contain up to 0.6% petroleum products. At this temperature, any gasoline, No. 2 through No. 6 fuel oil, or motor oil will be evaporated from the soil.

The gases leaving the dryer will pass through an 85% efficient Joy-Western multicyclone to a 99.9% efficient Micropul baghouse to remove the entrained particulate matter. Up to 3.3 lbs/hr PM (1 lb/hr avg.) will pass through the baghouse (and afterburner) to the atmosphere. This particulate matter may contain up to 0.13 lbs/hr of Pb. The particulate matter captured by the multicyclone and dryer baghouse will be returned to the contaminated soil being fed to the dryer. The gases leaving the dryer baghouse, which will contain up to 480 lbs/hr of hydrocarbons evaporated from the soil, will pass through a heat exchanger system and a high efficiency afterburner fired by 15 MMBtu/hr of natural gas to reach a temperature of 1600°F for 0.75 seconds. Assuming a minimum afterburner destruction efficiency of 98.8%, 5.5 lbs/hr of VOC will be emitted through a 4.5 ft. diameter by 80 ft. high stack to the atmosphere. The burning of waste oil for fuel in the afterburner is prohibited.

The hot air from the heat exhangers will be sent to the low excess air dryer burners. Treated soil from the dryer will be transferred by the raw material gallery to the stacker. Fugitive dust from the transfer of the treated soil is controlled with a 99.9% efficiency Micropul baghouse. Maximum PM emissions from this baghouse is expected to be 0.02 gr/dscf and 0.5 lbs/hr.

Some soil treated in this unit may be contaminated with up to 800 ppm No. 6 fuel oil containing up to 2.1% sulfur. This sulfur, along with the sulfur in the fuel, will be converted to sulfur dioxide when it is burned and emitted to the atmosphere. The maximum sulfur dioxide emissions from the unit will be 17.18 lbs/hr. A restriction that limits fuel oil consumption by the unit to 769,459 gallons per year will cap sulfur dioxide emissions at 40.2 TPY. Over the previous 5 years, the stone dryer has emitted an average of 0.7 TPY of SO_2. Therefore, the net emissions increase of SO_2 will be less than the significant emissions rate of 40 TPY. As can be seen from the emissions table in Section I.D., the increase in emissions of the other criteria pollutants are less than the significant emissions rates.

At the mass emissions rate from the process proposed by the applicant, there should be no visible emissions from the system.

The guidance used by the Department to determine Acceptable Ambient Concentrations (AAC) of hazardous pollutants is based on the following formula:

$$\text{Acceptable Ambient Concentration (AAC)} = \frac{40}{\text{(hrs per week operation)}} \times \frac{1 \times \text{(OEL)}}{\text{Safety factor}}$$

The safety factors are 100 for category A substances and 50 for category B substances.

OEL - Occupational Exposure Level such as ACGIH, OSHA, and NIOSH published standards for toxic materials.

TWA-TLV values are published by the American Conference of Governmental Industrial Hygienists (ACGIH).

Other acceptable toxic concentrations are based on risk factor. The acceptable concentrations for benzene, the most toxic of the BTEX compounds expected to be in the petroleum products treated in this kiln, are 30 ug/m^3 (8 hr. std.), 7.1 ug/m^3 (24 hr. std.), and 0.12 ug/m^3 (annual std.).

Calculations, using the EPA approved Screen - 1.1 Model (updated PTPLU 6 Model) and the stack parameters listed in the application, show that an emission rate of 1 gram/sec will have maximum ambient air impacts of 6.2 ug/m^3 (1 hr.), 4.34 ug/m^3 (8 hr.), and 0.62 ug/m^3 (annual).

The maximum emissions that can occur without exceeding the AAC can be determined by the following relationship:

AAC = Impact of Unit x Emissions.

With this relationship and data, the Department can estimate the maximum emissions of a pollutant from the proposed unit that can occur without exceeding the AAC. Also, by knowing the process weight for the unit (40 TPH), assuming all VOC in the contaminated soil is evaporated in the kiln, and that 98.8% of this VOC is destroyed by the afterburner, the maximum content of the pollutants in the soil that can exist without the potential to exceed the AAC can be determined. The Department has made these calculations for benzene, the most toxic of the BTEX compounds.

The results show that benzene emission rates above 1.53 lbs/hr would exceed the annual AAC. If the soil contains more than 1,594 ppm benzene, this emission rate could be exceeded.

For soil contaminated with other than BTEX petroleum product components and derivatives, the applicant will be required to submit calculations showing the AAC or other concentrations needed to protect public health and safety will not be exceeded before the soil can be treated in this unit.

IV. Air Quality Analysis

Regulations do not require the applicant to determine the ambient air impact for the proposed stone dryer modification. Based on a screening model calculation of the impact of the proposed emissions from the stone dryer, the Department has reasonable assurance that its operation will not create a health hazard or cause/contribute to an ambient air violation.

V. Conclusion

Based on the information provided by Rinker Materials Corporation, the Department has reasonable assurance that the modification/operation of the 40 TPH stone dryer system, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor — Carol M. Browner, Secretary

PERMITTEE:
Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

Permit Number: AC 13-187599
Expiration Date: March 30, 1992
County: Dade
Latitude/Longitude: 25°46'48"N
80°25'10"W
Project: Modification of the Stone Dryer

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Authorization to modify the existing stone dryer system to decontaminate up to 40 TPH of soil containing petroleum products (gasoline, No. 2-6 fuel oils, and motor oil). Major components of the system are Gencor Ultraflame low excess air oil burners for the existing 7 ft. diameter by 80 ft. long rotary dryer, an 85% efficient Joy-Western multicyclone, a 99.9% efficient Micropul baghouse with 3,366 sq. ft. of cloth area, a 99.5% efficient natural gas fired IT/McGill afterburner capable of 0.75 seconds residence time at 1600°F, two heat exchangers for energy recovery, a raw material gallery controlled with a Micropul baghouse that discharges approximately 500 acfm at 400°F through a 1.0 ft. square stack that is 45 ft. high, material handling equipment (screens, inclined belt feeders, bucket elevator, crusher, and stacker), fuel systems ("on-spec" waste oil, "off-spec" waste oil, and No. 2 fuel oil for the dryer, and natural gas for the afterburner), a by-pass stack to be used only when the kiln is drying stone, and associated equipment. Air pollutants from the dryer are discharged in approximately 36,500 acfm of 800°F flue gases through a 4.5 ft. diameter by 80 ft. high stack.

This system is located at the permittee's Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The UTM coordinates of this site are Zone 17, 558.2 km E and 2851.3 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application received December 10, 1990.
2. Rinker's letter dated February 22, 1991.
3. EQ letter dated March 5, 1991.
4. EQ letter dated May 8, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for

GENERAL CONDITIONS:

continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this facility shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The afterburner shall be capable of operating above 1600°F with a 0.75 second retention time. It shall have a minimum VOC destruction efficiency of 98.8 percent.

Emission Restrictions

4. Particulate matter emissions from the afterburner shall neither exceed 0.04 grains/dscf, nor 3.3 lbs/hr (max.)/1.0 lbs/hr (avg.).

SPECIFIC CONDITIONS:

Lead emissions shall not exceed 0.13 lbs/hr. Particulate matter emissions from the fugitive dust baghouse shall not exceed 0.02 grains/dscf, nor 0.5 lbs/hr. Visible emissions from any part of the process shall not exceed 5% opacity.

5. Benzene emissions from the afterburner shall not exceed 1.5 lbs/hr. Total VOC emissions shall not exceed 5.5 lbs/hr. Compliance shall be determined by a material balance using soil analysis, production rate, and the afterburner destruction efficiency.

6. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

7. The system shall be properly operated and maintained (F.A.C. Rule 17-2.210(2)). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly (F.A.C. Rule 17-2.240). The afterburner must be in service any time the stone dryer is used to decontaminate soil. The use of the afterburner is not required when the unit is used to dry stone

8. Reasonable precautions shall be used to minimize unconfined emissions of particulate matter generated by this operation (F.A.C. Rule 17-2.610(3)). This includes hauling the soil in covered trucks, prompt clean-up of spills, and wetting the area when needed to minimize wind blown dust.

9. The unit shall not be operated in a manner that may create a nuisance.

10. Untreated soil removed from the ground shall be covered with a plastic sheet while in storage.

11. This unit shall be allowed to operate continuously, 24 hours per day, 7 days per week, and 52 weeks per year. The permittee shall maintain a log that shows the process (soil decontamination or stone drying), time, and dates the unit was operated.

12. Use of the existing cement kiln to decontaminate soil shall cease when the stone dryer begins operation as a soil

SPECIFIC CONDITIONS:

decontamination unit or when this construction permit expires, whichever event occurs first.

13. Maximum soil charging rate to the unit shall not exceed 40 TPH. The permittee shall have means to determine the feed or production rate on the system.

14. The dryer is authorized to burn up to 27.4 MMBtu/hr of waste oil (193 GPH) containing a maximum of 0.4% sulfur and 500 ppm lead, No. 2 distillate oil (193 GPH) containing a maximum of 0.5% sulfur, and/or natural gas (460 CFM). The maximum fuel oil consumption shall not exceed 769,459 gallons in any 12 month period.

15. The fume incinerator is authorized to burn up to 15.0 MMBtu/hr of natural gas (250 CFM). The fume incinerator shall be in service any time the stone dryer is being used to process material containing contaminated soil. The by-pass stack must be closed when the unit is processing contaminated soil.

16. Only soils contaminated with virgin (non-recycled) petroleum fuels and lubricants, "on-spec" used oils and, if requested and approved by the Bureau of Air Regulation (BAR), "off-spec" used oil not meeting F.A.C. Rule 17-775 specifications (see Specific Condition No. 17) shall be treated in this unit. The soil decontamination system shall neither be used to thermally process materials that are listed in 40 CFR 261.31, 261.32, 261.33 (revised as of July 1, 1990) nor materials that have the hazardous characteristics of corrosivity, reactivity, EP toxicity, and ignitability. Prior to the acceptance of contaminated materials for processing, the permittee shall obtain reasonable assurance that the soil is contaminated with only virgin and/or "on specification" petroleum products. Reasonable assurance may be obtained by the sampling of the soil, by certification from owners regarding the history of the site, or by any other documentation or submission approved by the DER in such regard. If reasonable assurance is not available, the soil shall be assumed to be contaminated with "off-spec" material.

17. Only soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel, and motor oils) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation.

Hazardous waste as defined in 40 CFR 261.3 shall not be processed by this unit.

Metals in the soils to be treated shall not exceed the following:

SPECIFIC CONDITIONS:

Metals	Maximum Concentration TCLP(mg/L)	Total(mg/Kg)
Arsenic	5.0	55
Barium	100.0	2750
Cadmium	1.0	55
Chromium	5.0	275
Lead	5.0	77
Mercury	0.2	17
Selenium	1.0	165
Silver	5.0	165

Total Volatile Organic Aromatics (VOA) constituent in the soil shall not exceed the concentrations that have the potential to exceed the Acceptable Ambient Concentration or the VOC emission limit for this unit (see Specific Conditions Nos. 5 and 19).

To show compliance with this condition, the permittee shall analyze composite samples of the contaminated soil (see Specific Condition No. 18) by the EPA SW 846 Methods, Test Method for Evaluating Solid Waste Physical/Chemical, for VOA (EPA Method 5030/8020), TRPH (EPA draft Method 9073), and Metals (EPA Method 1311, 3050, 6010, 7040, 7041, 7060, 7061, 7080, 7130, 7131, 7190, 7191, 7420, 7421, 7471, and 7760). All soil samples taken at the remediation site and from the soil exiting the dryer shall be stored in a sealed clean glass container immediately upon sampling.

18. The permittee may request, in writing, permission to treat materials not meeting the specifications in F.A.C. Rule 17-775. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. Public notice may be required for Department as a part of Department review. The Department will approve or deny each request in writing on a case-by-case basis.

19. Sampling and analysis of the contaminated soil, based on the procedures prescribed in SW-846, shall be conducted prior to remediation. Minimum number of composite samples for analysis at each site prior to remediation shall be as follows:

SPECIFIC CONDITIONS:

Soil Quantity ($yards^3$)	No. of Composite Samples
Less than 100	1
100 to 500	3
500 to 1000	5
Each additional 500 yds	1 additional sample

20. Unless the Department has determined other concentrations are required to protect public health and safety, predicted ambient air impact of any toxic pollutant, as determined by the PTPLU 6 model or other DARM approved models, shall not exceed the concentration calculated by the following formula:

$$AAC = \frac{40}{X} \cdot \frac{1}{\text{safety factor}} \cdot (OEL)$$

where,

AAC = Acceptable Ambient Concentration

Safety Factor = 100 for category A substances and
50 for category B substances

X = 40 or the hours/week of actual operation, whichever is larger

OEL - Occupational exposure level such as the TWA-TLV published by the ACGIH, OSHA, and NIOSH published standards for toxic materials.

TWA-TLV is the threshold limit value (8 hrs/day, 40 hrs/wk) maximum exposure concentration considered safe for workers by the ACGIH.

Data in the application shows that, for continuous operation, an emission of 1 gram/sec will have a maximum ambient impact of 6.2×10^{-3} mg/m^3 (1 hr.), 4.34×10^{-3} mg/m^3 (8 hr.), and 0.62×10^{-3} mg/m^3 (annual). If the stack parameters are different than the values listed in the application, the permittee must determine and use the actual impact factor calculated by the EPA Approved Screen - 1.1 Model or other DARM approved models.

$$\text{Maximum Allowable Emissions (g/sec)} = \frac{AAC \quad mg/m^3}{\text{Max. Impact of 1 g/s } (mg/m^3)}$$

SPECIFIC CONDITIONS:

21. Pressure drop across the dryer's baghouse and temperature of the afterburner shall be recorded continuously during operations. The instruments used to obtain these measurements shall be properly calibrated, maintained, and in operation any time the unit is in service. The baghouse and the afterburner must be fully operational, as demonstrated by continuous monitoring instrumentation on the unit, whenever the system is being used to decontaminate soil. The baghouse shall be fully operational when the system is being used to dry stone.

Compliance Requirements

22. This unit shall be tested at a process weight rate of 36 to 40 TPH. All compliance tests shall meet the requirements listed in F.A.C. Rule 17-2.700. The unit shall not operate above the maximum permitted rate of 40 TPH of contaminated soil.

23. When the Department, after investigation, has good reason (such as complaints, increased visible emissions, or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Chapter 17-2, F.A.C., or in this permit is being violated, it may require the owner or operator of the unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the Department.

24. The exhaust stack for this process must be tested concurrently for particulate matter and visible emissions by EPA Methods 5 and 9 pursuant to 40 CFR 60, Appendix A, revised as of July 1, 1990, within 30 days after placing the unit in commercial operation under this permit and annually thereafter. The initial test and any test data submitted with an application for permit to operate (every 5 years) shall include analysis of the filter and impinger catch for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver along with similar analysis of the contaminated and treated soil processed during the test.

25. The unit destruction efficiency, benzene, and VOC emissions shall be established by a material balance using process weight, soil analysis and either Method 18 or 25 test (40 CFR 60, Appendix A, revised as of July 1, 1990) or other methods as approved by the Department. The afterburner temperature that existed during the compliance test shall be specified as the minimum operation temperature in any permit to operate issued for this unit.

SPECIFIC CONDITIONS:

Administrative Requirements

26. This permit requires compliance with any applicable local (county) regulations. This may include requirements for a county operation permit.

27. The Southeast District shall be notified in writing at least 15 days in advance of any annual compliance test to be conducted on this source.

28. Any analysis required by Specific Condition No. 17 which indicates a violation of any condition in this permit shall be reported as soon as feasible to the Southeast District. An average concentration of benzene above 1,599 ppm in the soil or total hydrocarbons above 6,000 ppm or metal concentrations above that listed in Specific Condition No. 17 is a potential violation of this permit. The soil may be decontaminated by operating at less than the 40 TPH production rate, or other means, with prior approval of the Department. The permittee must propose the method of compliance with this permit. Waste oil containing more than 500 ppm lead is also a violation of this permit.

29. Records shall be kept by the permittee on the location, date, time, and number of samples taken for each composite sample. Soil analysis results shall be available for Department inspection for minimum of 3 years.

30. Stack test results for PM and VOC shall be submitted to the Department (Southeast District) within 45 days of the test.

31. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

32. An application for an operation permit must be submitted to the Southeast District at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed

SPECIFIC CONDITIONS:

noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Carol M. Browner, Secretary

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (AC 13-187599) to Rinker Materials Corporation, Post Office Box 650679, Miami, Florida 33265-0679, to construct (modify) the existing stone dryer by the addition of low nitrogen oxides burners, baghouses, and a fume incinerator, so that it can decontaminate up to 40 TPH of soils containing petroleum fuels and lubricants. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The regulations do not require a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination for this modification. The modified dryer may emit 1 lb/hr (avg.) and 4.4 TPY particulate matter, 0.13 lb/hr and 0.57 TPY lead, 5.5 lbs/hr and 24.0 TPY VOC, 17.2 lbs/hr and 40.2 TPY SO_2, 6.3 lbs/hr and 27.8 TPY NOx, and 2.1 lbs/hr and 9.2 TPY CO. These emissions will not cause a violation of any ambient air quality standard or Prevention of Significant Deterioration (PSD) increment. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Dade County Department of Environmental
Resources Management
Jose Marti Building
801 S.W. 3rd Avenue, 2nd Floor
Miami, Florida 33130

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Sen. Carrie P. Meek
149 West Palza
Suite 236
Miami, FL 33147

Hon. Darryl Reaves
NCNB Bank Bldg.
Suite 401
1313 N.W. 36th Street
Miami, FL 33142

Hon. Lawrence H. Plummer
6001 S.W. 40th Street
S. Miami, FL 33155

Hon. Ronald A. Silver
2750 N.E. 187th Street
North Miami Beach, FL 33180

Sen. Javier Souto
Sutie 304
8500 S.W. 8th Street
Miami, FL 33144

Hon. Art Simon
Suite 220
13500 N. Kendall Drive
Miami, FL 33186

Office of the Mayor
City of Miami
P. O. Box 330708
Miami, FL 33233-0708

Hon. Carlos L. Valdes
7175 S.E. 8th Street
Suite 201
Miami, FL 33144

Office of the Mayor
City of Miami Beach
1700 Convention Center Drive
Miami Beach, FL 33139-1819

Sen. Roberto Casas
60 E. 3rd Street
Suite 202
Hialeah, FL 33012

Office of the Mayor
City of Miami Lakes
6843 Main Street
Miami Lakes, FL 33014-2048

Sen. Lincoln Diaz-Balart
5040 N.W. 7th Street
Suite 680
Miami, FL 33126

Office of the Mayor
Miami Shores Village
10050 Northeast Second Ave.
Miami Shores Village, FL 33138-2304

Sen. Jack D. Gordon
Suite 11-D
407 Lincoln Road
Miami Beach, FL 33139

Office of the Mayor
City of Miami Springs
201 Westward Drive
Miami Springs, FL 33166-5259

Sen. Gwen Margolis
13899 Biscayne Blvd.
North Miami Beach, FL 33181

Hon. Mike Abrams
Suite 142
13899 Biscayne Blvd.
North Miami Beach, FL 33181

Hon. Elaine Bloom
Suite 442
420 Lincoln Road
Miami Beach, FL 33139

Hon James Burke
Room 208
6600 Northwest 27th Avenue
Miami, FL 33147

Hon. John F. Cosgrove
201 W. Flagler Street
Suite 215
Miami, FL 33130

Hon. Miguel DeGrandy
Suite 1010
999 Ponce De Leon Blvd.
Miami, FL 33134

Hon. Matio Diaz-Balart
Suite 206
8890 Coral Way
Miami, FL 33165

Suite 303
4160 West 16th Avenue
Hialeah, FL 33012

Hon. Elaine Gordon
1830 N.E. 144th Street
North Miami, FL 33181

Hon. Susan Guber
9020 SW 77th Avenue
Apt. E-3
Miami, FL 33156

Hon. Alberto Gutman
Suite 326A
300 SW 12th Avenue
Miami, FL 33130

Hon. Bruce Hoffman
Suite 14
2742 S.E. 8th Street
Miami, FL 33135

Hon. Darryl Jones
Suite 460, Bldg. #2
17020 Caribbean Blvd.
Miami, FL 33189

Hon. Luis C. Morse
807 S.W. 25th Avenue
Suite 302
Miami, FL 33135

Chairman
Dade County Board of County Commissioners
111 Northwest 1st Street, Suite 230
Miami, Florida 33128-1895

Office of the Mayor
City of North Miami
P. O. Box 610847
North Miami, FL 33261-0847

Office of the Mayor
City of North Miami Beach
17011 Northeast 19th Avenue
North Miami Beach, FL 33162-3111

Offie of the Mayor
City of Opa-Locka
777 Sharazad Blvd.
Opa-locka, FL 33054-3521

Office of the Mayor
City of Sweetwater
500 S.W. 109th Avenue
Sweetwater, FL 33174-1336

Office of the Mayor
City of South Miami
6130 Sunset Drive
South Pasadena, FL 33707-2819

Office of the Mayor
City of West Miami
901 S.W. 62nd Avenue
West Miami, FL 33144-4805

Office of the Mayor
City of Hialeah
P. O. Box 40
Hialeah, FL 33011-0040

Sen. Carrie P. Meek
149 West Palza
Suite 236
Miami, FL 33147

Hon. Darryl Reaves
NCNB Bank Bldg.
Suite 401
1313 N.W. 36th Street
Miami, FL 33142

Hon. Lawrence H. Plummer
6001 S.W. 40th Street
S. Miami, FL 33155

Hon. Ronald A. Silver
2750 N.E. 187th Street
North Miami Beach, FL 33180

Sen. Javier Souto
Sutie 304
8500 S.W. 8th Street
Miami, FL 33144

Hon. Art Simon
Suite 220
13500 N. Kendall Drive
Miami, FL 33186

Office of the Mayor
City of Miami
P. O. Box 330708
Miami, FL 33233-0708

Hon. Carlos L. Valdes
7175 S.E. 8th Street
Suite 201
Miami, FL 33144

Office of the Mayor
City of Miami Beach
1700 Convention Center Drive
Miami Beach, FL 33139-1819

Sen. Roberto Casas
60 E. 3rd Street
Suite 202
Hialeah, FL 33012

Office of the Mayor
City of Miami Lakes
6843 Main Street
Miami Lakes, FL 33014-2048

Sen. Lincoln Diaz-Balart
5040 N.W. 7th Street
Suite 680
Miami, FL 33126

Office of the Mayor
Miami Shores Village
10050 Northeast Second Ave.
Miami Shores Village, FL 33138-2304

Sen. Jack D. Gordon
Suite 11-D
407 Lincoln Road
Miami Beach, FL 33139

Office of the Mayor
City of Miami Springs
201 Westward Drive
Miami Springs, FL 33166-5259

Sen. Gwen Margolis
13899 Biscayne Blvd.
North Miami Beach, FL 33181

Hon. Mike Abrams
Suite 142
13899 Biscayne Blvd.
North Miami Beach, FL 33181

Hon. Elaine Bloom
Suite 442
420 Lincoln Road
Miami Beach, FL 33139

Hon James Burke
Room 208
6600 Northwest 27th Avenue
Miami, FL 33147

Hon. John F. Cosgrove
201 W. Flagler Street
Suite 215
Miami, FL 33130

Hon. Miguel DeGrandy
Suite 1010
999 Ponce De Leon Blvd.
Miami, FL 33134

Hon. Matlo Diaz-Balart
Suite 206
8890 Coral Way
Miami, FL 33165

Suite 303
4160 West 16th Avenue
Hialeah, FL 33012

Hon. Elaine Gordon
1830 N.E. 144th Street
North Miami, FL 33181

Hon. Susan Guber
9020 SW 77th Avenue
Apt. E-3
Miami, FL 33156

Hon. Alberto Gutman
Suite 326A
300 SW 12th Avenue
Miami, FL 33130

Hon. Bruce Hoffman
Suite 14
2742 S.E. 8th Street
Miami, FL 33135

Hon. Darryl Jones
Suite 460, Bldg. #2
17020 Caribbean Blvd.
Miami, FL 33189

Hon. Luis C. Morse
807 S.W. 25th Avenue
Suite 302
Miami, FL 33135

Chairman
Dade County Board of County Commissioners
111 Northwest 1st Street, Suite 230
Miami, Florida 33128-1895

Office of the Mayor
City of North Miami
P. O. Box 610847
North Miami, FL 33261-0847

Office of the Mayor
City of North Miami Beach
17011 Northeast 19th Avenue
North Miami Beach, FL 33162-3111

Offie of the Mayor
City of Opa-Locka
777 Sharazad Blvd.
Opa-locka, FL 33054-3521

Office of the Mayor
City of Sweetwater
500 S.W. 109th Avenue
Sweetwater, FL 33174-1336

Office of the Mayor
City of South Miami
6130 Sunset Drive
South Pasadena, FL 33707-2819

Office of the Mayor
City of West Miami
901 S.W. 62nd Avenue
West Miami, FL 33144-4805

Office of the Mayor
City of Hialeah
P. O. Box 40
Hialeah, FL 33011-0040

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- 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 next to the article number.

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:
Mr. James S. Jenkins III
Pinter Materials Corp.
P.O. Box 650679
Miami, Fl 33265-0679

4a. Article Number
P 832 539 817

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
JUL 22 1991

5. Signature (Addressee)

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

6. Signature (Agent)

PS Form **3811**, October 1990 ☆U.S. GPO: 1990—273-861 **DOMESTIC RETURN RECEIPT**

P 832 539 817

Certified Mail Receipt
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to James Jenkins III	
Street & No. Pinter Materials	
P.O., 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, & Address of Delivery	
TOTAL Postage & Fees	
Postmark or Date 7-17-91	$

PS Form **3800**, June 1990

AC 13-187599

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

May 22, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III
Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Not signed

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to construct (modify) your ~~existing stone~~ dryer. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The modification will allow the dryer to decontaminate soils containing petroleum fuels and lubricants.

This operation will also be subject to F.A.C. Rule 17-775, Soil Thermal Treatment Facilities, F.A.C. Rule 17-30, Hazardous Waste, and 40 CFR 260-271, including the regulations promulgated in the February 21, 1991, Federal Register, Burning of Hazardous Waste in Boilers and Industrial Furnaces.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/WH/plm

Attachments

c: J. Harper, EPA
I. Goldman, SE Dist.
P. Wong, DERM
Don Ehlenbeck, BWC
Satish Kastury, HWR

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

DER File No. AC 13-187599

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue an air construction permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Rinker Materials Corporation, applied on October 5, 1990, to the Department of Environmental Regulation for a permit to construct (modify) the existing stone dryer. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The modification will allow the dryer to decontaminate soils containing petroleum fuels and lubricants.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a

hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copies furnished to:

J. Harper, EPA
I. Goldman, SE Dist.
P. Wong, DERM
Don Ehlenbeck, BWC
Satish Kastury, HWR

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 5-22-91.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statuts, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk 5-22-91
Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (AC 13-187599) to Rinker Materials Corporation, Post Office Box 650679, Miami, Florida 33265-0679, to construct (modify) the existing stone dryer by the addition of low nitrogen oxides burners, baghouses, and a fume incinerator, so that it can decontaminate up to 40 TPH of soils containing petroleum fuels and lubricants. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The regulations do not require a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination for this modification. The modified dryer may emit 1 lb/hr (avg.) and 4.4 TPY particulate matter, 0.13 lb/hr and 0.57 TPY lead, 5.5 lbs/hr and 24.0 TPY VOC, 17.2 lbs/hr and 40.2 TPY SO_2, 6.3 lbs/hr and 27.8 TPY NOx, and 2.1 lbs/hr and 9.2 TPY CO. These emissions will not cause a violation of any ambient air quality standard or Prevention of Significant Deterioration (PSD) increment. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Dade County Department of Environmental
Resources Management
Jose Marti Building
801 S.W. 3rd Avenue, 2nd Floor
Miami, Florida 33130

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Rinker Materials Corporation
Miami, Dade County, Florida

Stone Dryer Modification

File No.: AC 13-187599

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

May 21, 1991

I. General Information

A. Applicant

Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

B. Request

On October 5, 1990, Rinker Materials Corporation submitted an application for a permit to construct (modify) the existing stone dryer at their Portland cement manufacturing plant (SIC 3241) by the addition of low NOx burners, baghouses, and a fume incinerator. This control equipment was needed so that the stone dryer can be used to decontaminate soils containing petroleum fuels and lubricants. The application was revised and resubmitted on December 10, 1990. Additional information on this project was submitted on February 28, March 5, and May 10, 1991. The application was considered complete on receipt of applicant's March 5, 1991, letter.

C. Project

The applicant is currently decontaminating soil at their facility in the Portland cement manufacturing kiln. The applicant will transfer their soil decontaminating operation from the Portland cement manufacturing kiln to their stone dryer (AO 13-127621). Soil decontamination involves heating the contaminated soil to evaporate the petroleum products, removing the dust from this gas steam, and burning the evaporated petroleum products. To comply with the Department's policy that requires a minimum of 95% VOC destruction efficiency and other air pollution control regulations for soil decontamination operations, the applicant is installing low NOx burners, a baghouse, and a fume incinerator on the stone dryer. Also included in the project are heat exchangers (heat recovery) and raw material handling which is controlled by its own baghouse.

D. Emissions

The applicant proposes to decontaminate up to 40 TPH of soils contaminated with an average of 0.6% petroleum fuels and lubricants (gasoline, Nos. 1 thru 6 type fuel oils, and internal combustion engine motor oils) in a rotary kiln that uses up to 27.4 MMBtu/hr heat from waste oil (max. 500 ppm lead), No. 2 fuel oil, and natural gas. Total fuel oil consumption will be limited by the permit to 769,459 gallons per year. Dust from the gases leaving the kiln will be removed by a baghouse and the petroleum fumes will be burned in a 99.5% efficient natural gas fired fume incinerator. A separate baghouse will be used to control fugitive emissions caused by the handling of the treated soil. The unit will be allowed to operate continuously (8,760 hours per year).

Soil thermal treatment facilities emit particulate matter (PM) including lead (Pb) compounds, volatile organic compounds (VOC), and the incomplete and complete products of combustion (SO_2, NO_x, and CO).

The maximum emissions expected from the operation are shown in the following table:

Pollutant	lbs/hr	TPY
PM	3.3 max/1 avg.	4.4
Pb	0.13	0.57
SO_2	17.2 max	40.2*
CO	2.1	9.2
VOC	5.5	24.0
NOx	6.3	27.8

*Restricting fuel oil consumption of the unit to 769,459 gal/yr will reduce potential SO_2 emissions from 75.2 to 40.2 TPY.

The fugitive dust baghouse will emit an additional 0.5 lbs/hr (2.3 TPY) PM.

Visible emissions from both baghouses should not exceed 5% opacity.

The unit will also be used, without the fume incinerator, to dry stones. "Off-spec" used oil containing a maximum of 500 ppm lead may be burned for fuel in the kiln.

II. Rule Applicability

The proposed project, modification of the existing stone dryer, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The source will be located in an area designated nonattainment for ozone (F.A.C. Rule 17-2.410), and attainment for all criteria pollutants (F.A.C. Rule 17-2.420).

The plant is a major facility (F.A.C Rule 17-2.100) because allowable emissions of PM, SO_2, and NOx can exceed 100 TPY for each of these air pollutants. Portland cement plants are on the List of 28, Major Facility Categories (F.A.C. Rule 17-2, Table 500-1). The project is not subject to the Prevention of Significant Deterioration (PSD) regulations (F.A.C. Rule 17-2.500) or the New Source Review for Nonattainment Areas (F.A.C. Rule 17-2.510) because the modification will not result in a significant net increase of any criteria pollutant. The project is subject to F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. Organic (VOC) emissions will be regulated under F.A.C. Rule 17-2.620, General Pollutant Emission Limiting Standards, which restrict emissions to controls as deemed necessary by the Department. The

Department deems 95% destruction of the VOC air pollutants as a minimum standard for this unit. Also, the discharge of air pollutants shall not cause an objectionable odor or an exceedance of any Acceptable Ambient Concentration (AAC) for any toxic pollutant. Other pollutants will be permitted at the emission rates requested by the applicant. Higher emissions could subject this source to other air pollution control regulations.

The source is also subject to F.A.C. Rule 17-775, Soil Thermal Treatment Facilities. Because the source will use "off-spec" waste oil as fuel for the kiln and treat soil contaminated with "off-spec" petroleum products, it may also be subject to F.A.C. Rule 17-30, Hazardous Waste, and 40 CFR 260-271, including the regulations promulgated in the February 21, 1991, Federal Register, Burning of Hazardous Waste in Boilers and Industrial Furnaces. This evaluation addresses the requirements of F.A.C. Chapter 17-2, Air Pollution, only.

III. Technical Evaluation

Soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel oils, and motor oil) will be processed in the modified stone dryer. The modified dryer may also be operated, without the fume incinerator, to dry stone. "On and off-spec" petroleum fuel may be burned in the dryer. The soil may contain "on and off-spec" petroleum products. Only natural gas fuel is used in the fume incinerator. "Off-spec" petroleum product contaminated soil cannot be treated without written permission from the Department.

The permittee may request, in writing, permission to treat "off-spec" petroleum material. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. After public notice, the Department will approve or deny each request in writing on a case-by-case basis.

Soil contaminated with petroleum products will be sampled and tested for the presence of PCBs (polychlorobiphenyls), BTEX (benzene, toluene, ethyl benzene, and xylene), and RCRA materials prior to decontamination. The PCB and RCRA tests may be waived if the applicant can provide the Department with reasonable assurance that the soil is contaminated only with "on-spec" and virgin petroleum products.

The modified dryer will be capable of heating up to 40 TPH of contaminated soil to 1500°F using 27.4 MMBtu of "on-spec" waste oil with a maximum of 500 ppm Pb, No. 2 fuel oil with a maximum of 0.5% sulfur, or natural gas fuel. The soil is expected to contain up to 0.6% petroleum products. At this temperature, any gasoline, No. 2 through No. 6 fuel oil, or motor oil will be evaporated from the soil.

The gases leaving the dryer will pass through an 85% efficient Joy-Western multicyclone to a 99.9% efficient Micropul baghouse to remove the entrained particulate matter. Up to 3.3 lbs/hr PM (1 lb/hr avg.) will pass through the baghouse (and afterburner) to the atmosphere. This particulate matter may contain up to 0.13 lbs/hr of Pb. The particulate matter captured by the multicyclone and dryer baghouse will be returned to the contaminated soil being fed to the dryer. The gases leaving the dryer baghouse, which will contain up to 480 lbs/hr of hydrocarbons evaporated from the soil, will pass through a heat exchanger system and a high efficiency afterburner fired by 15 MMBtu/hr of natural gas to reach a temperature of 1600°F for 0.75 seconds. Assuming a minimum afterburner destruction efficiency of 98.8%, 5.5 lbs/hr of VOC will be emitted through a 4.5 ft. diameter by 80 ft. high stack to the atmosphere. The burning of waste oil for fuel in the afterburner is prohibited.

The hot air from the heat exhangers will be sent to the low excess air dryer burners. Treated soil from the dryer will be transferred by the raw material gallery to the stacker. Fugitive dust from the transfer of the treated soil is controlled with a 99.9% efficiency Micropul baghouse. Maximum PM emissions from this baghouse is expected to be 0.02 gr/dscf and 0.5 lbs/hr.

Some soil treated in this unit may be contaminated with up to 800 ppm No. 6 fuel oil containing up to 2.1% sulfur. This sulfur, along with the sulfur in the fuel, will be converted to sulfur dioxide when it is burned and emitted to the atmosphere. The maximum sulfur dioxide emissions from the unit will be 17.18 lbs/hr. A restriction that limits fuel oil consumption by the unit to 769,459 gallons per year will cap sulfur dioxide emissions at 40.2 TPY. Over the previous 5 years, the stone dryer has emitted an average of 0.7 TPY of SO_2. Therefore, the net emissions increase of SO_2 will be less than the significant emissions rate of 40 TPY. As can be seen from the emissions table in Section I.D., the increase in emissions of the other criteria pollutants are less than the significant emissions rates.

At the mass emissions rate from the process proposed by the applicant, there should be no visible emissions from the system.

The guidance used by the Department to determine Acceptable Ambient Concentrations (AAC) of hazardous pollutants is based on the following formula:

$$\text{Acceptable Ambient Concentration (AAC)} = \frac{40}{\text{(hrs per week operation)}} \times \frac{1 \times \text{(OEL)}}{\text{Safety factor}}$$

The safety factors are 100 for category A substances and 50 for category B substances.

OEL - Occupational Exposure Level such as ACGIH, OSHA, and NIOSH published standards for toxic materials.

TWA-TLV values are published by the American Conference of Governmental Industrial Hygienists (ACGIH).

Other acceptable toxic concentrations are based on risk factor. The acceptable concentrations for benzene, the most toxic of the BTEX compounds expected to be in the petroleum products treated in this kiln, are 30 ug/m^3 (8 hr. std.), 7.1 ug/m^3 (24 hr. std.), and 0.12 ug/m^3 (annual std.).

Calculations, using the EPA approved Screen - 1.1 Model (updated PTPLU 6 Model) and the stack parameters listed in the application, show that an emission rate of 1 gram/sec will have maximum ambient air impacts of 6.2 ug/m^3 (1 hr.), 4.34 ug/m^3 (8 hr.), and 0.62 ug/m^3 (annual).

The maximum emissions that can occur without exceeding the AAC can be determined by the following relationship:

AAC = Impact of Unit x Emissions.

With this relationship and data, the Department can estimate the maximum emissions of a pollutant from the proposed unit that can occur without exceeding the AAC. Also, by knowing the process weight for the unit (40 TPH), assuming all VOC in the contaminated soil is evaporated in the kiln, and that 98.8% of this VOC is destroyed by the afterburner, the maximum content of the pollutants in the soil that can exist without the potential to exceed the AAC can be determined. The Department has made these calculations for benzene, the most toxic of the BTEX compounds.

The results show that benzene emission rates above 1.53 lbs/hr would exceed the annual AAC. If the soil contains more than 1,594 ppm benzene, this emission rate could be exceeded.

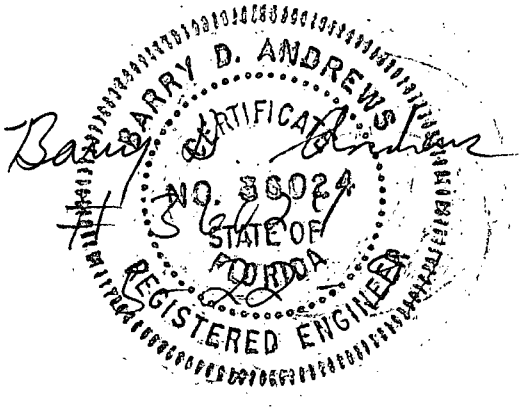
For soil contaminated with other than BTEX petroleum product components and derivatives, the applicant will be required to submit calculations showing the AAC or other concentrations needed to protect public health and safety will not be exceeded before the soil can be treated in this unit.

IV. Air Quality Analysis

Regulations do not require the applicant to determine the ambient air impact for the proposed stone dryer modification. Based on a screening model calculation of the impact of the proposed emissions from the stone dryer, the Department has reasonable assurance that its operation will not create a health hazard or cause/contribute to an ambient air violation.

V. Conclusion

Based on the information provided by Rinker Materials Corporation, the Department has reasonable assurance that the modification/operation of the 40 TPH stone dryer system, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

Permit Number: AC 13-187599
Expiration Date: March 30, 1992
County: Dade
Latitude/Longitude: 25°46'48"N
80°25'10"W
Project: Modification of the Stone Dryer

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Authorization to modify the existing stone dryer system to decontaminate up to 40 TPH of soil containing petroleum products (gasoline, No. 2-6 fuel oils, and motor oil). Major components of the system are Gencor Ultraflame low excess air oil burners for the existing 7 ft. diameter by 80 ft. long rotary dryer, an 85% efficient Joy-Western multicyclone, a 99.9% efficient Micropul baghouse with 3,366 sq. ft. of cloth area, a 99.5% efficient natural gas fired IT/McGill afterburner capable of 0.75 seconds residence time at 1600°F, two heat exchangers for energy recovery, a raw material gallery controlled with a Micropul baghouse that discharges approximately 500 acfm at 400°F through a 1.0 ft. square stack that is 45 ft. high, material handling equipment (screens, inclined belt feeders, bucket elevator, crusher, and stacker), fuel systems ("on-spec" waste oil, "off-spec" waste oil, and No. 2 fuel oil for the dryer, and natural gas for the afterburner), a by-pass stack to be used only when the kiln is drying stone, and associated equipment. Air pollutants from the dryer are discharged in approximately 36,500 acfm of 800°F flue gases through a 4.5 ft. diameter by 80 ft. high stack.

This system is located at the permittee's Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The UTM coordinates of this site are Zone 17, 558.2 km E and 2851.3 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application received December 10, 1990.
2. Rinker's letter dated February 22, 1991.
3. EQ letter dated March 5, 1991.
4. EQ letter dated May 8, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for

GENERAL CONDITIONS:

continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this facility shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The afterburner shall be capable of operating above 1600°F with a 0.75 second retention time. It shall have a minimum VOC destruction efficiency of 98.8 percent.

Emission Restrictions

4. Particulate matter emissions from the afterburner shall neither exceed 0.04 grains/dscf, nor 3.3 lbs/hr (max.)/1.0 lbs/hr (avg.).

SPECIFIC CONDITIONS:

Lead emissions shall not exceed 0.13 lbs/hr. Particulate matter emissions from the fugitive dust baghouse shall not exceed 0.02 grains/dscf, nor 0.5 lbs/hr. Visible emissions from any part of the process shall not exceed 5% opacity.

5. Benzene emissions from the afterburner shall not exceed 1.5 lbs/hr. Total VOC emissions shall not exceed 5.5 lbs/hr. Compliance shall be determined by a material balance using soil analysis, production rate, and the afterburner destruction efficiency.

6. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

7. The system shall be properly operated and maintained (F.A.C. Rule 17-2.210(2)). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly (F.A.C. Rule 17-2.240). The afterburner must be in service any time the stone dryer is used to decontaminate soil. The use of the afterburner is not required when the unit is used to dry stone.

8. Reasonable precautions shall be used to minimize unconfined emissions of particulate matter generated by this operation (F.A.C. Rule 17-2.610(3)). This includes hauling the soil in covered trucks, prompt clean-up of spills, and wetting the area when needed to minimize wind blown dust.

9. The unit shall not be operated in a manner that may create a nuisance.

10. Untreated soil removed from the ground shall be covered with a plastic sheet while in storage.

11. This unit shall be allowed to operate continuously, 24 hours per day, 7 days per week, and 52 weeks per year. The permittee shall maintain a log that shows the process (soil decontamination or stone drying), time, and dates the unit was operated.

12. Use of the existing cement kiln to decontaminate soil shall cease when the stone dryer begins operation as a soil

SPECIFIC CONDITIONS:

decontamination unit or when this construction permit expires, whichever event occurs first.

13. Maximum soil charging rate to the unit shall not exceed 40 TPH. The permittee shall have means to determine the feed or production rate on the system.

14. The dryer is authorized to burn up to 27.4 MMBtu/hr of waste oil (193 GPH) containing a maximum of 0.4% sulfur and 500 ppm lead, No. 2 distillate oil (193 GPH) containing a maximum of 0.5% sulfur, and/or natural gas (460 CFM). The maximum fuel oil consumption shall not exceed 769,459 gallons in any 12 month period.

15. The fume incinerator is authorized to burn up to 15.0 MMBtu/hr of natural gas (250 CFM). The fume incinerator shall be in service any time the stone dryer is being used to process material containing contaminated soil. The by-pass stack must be closed when the unit is processing contaminated soil.

16. Only soils contaminated with virgin (non-recycled) petroleum products and "on-spec" used oil (see Specific Condition No. 17) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation (BAR). The soil decontamination system shall neither be used to thermally process materials that are listed in 40 CFR 261.31, 261.32, 261.33 (revised as of July 1, 1990) nor materials that have the hazardous characteristics of corrosivity, reactivity, EP toxicity, and ignitability. Prior to the acceptance of contaminated materials for processing, the permittee shall obtain reasonable assurance that the soil is contaminated with only virgin and/or "on specification" petroleum products. Reasonable assurance may be obtained by the sampling of the soil, by certification from owners regarding the history of the site, or by any other documentation or submission approved by the DER in such regard. If reasonable assurance is not available, the soil shall be assumed to be contaminated with "off-spec" material.

17. Only soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel, and motor oils) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation.

Hazardous waste as defined in 40 CFR 261.3 shall not be processed by this unit.

Metals in the untreated soil shall not exceed the following:

SPECIFIC CONDITIONS:

Metals	Maximum Concentration TCLP(mg/L)	Total(mg/Kg)
Arsenic	5.0	55
Barium	100.0	2750
Cadmium	1.0	55
Chromium	5.0	275
Lead	5.0	77
Mercury	0.2	17
Selenium	1.0	165
Silver	5.0	165

Total Volatile Organic Aromatics (VOA) constituent in the soil shall not exceed the concentrations that have the potential to exceed the Acceptable Ambient Concentration or the VOC emission limit for this unit (see Specific Conditions Nos. 5 and 19).

To show compliance with this condition, the permittee shall analyze composite samples of the contaminated soil (see Specific Condition No. 18) by the EPA SW 846 Methods, Test Method for Evaluating Solid Waste Physical/Chemical, for VOA (EPA Method 5030/8020), TRPH (EPA draft Method 9073), and Metals (EPA Method 1311, 3050, 6010, 7040, 7041, 7060, 7061, 7080, 7130, 7131, 7190, 7191, 7420, 7421, 7471, and 7760). All soil samples taken at the remediation site and from the soil exiting the dryer shall be stored in a sealed clean glass container immediately upon sampling.

18. The permittee may request, in writing, permission to treat "off-spec" material. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. After public notice, the Department will approve or deny each request in writing on a case-by-case basis.

19. Sampling and analysis of the contaminated soil, based on the procedures prescribed in SW-846, shall be conducted prior to remediation. Minimum number of composite samples for analysis at each site prior to remediation shall be as follows:

SPECIFIC CONDITIONS:

Soil Quantity ($yards^3$)	No. of Composite Samples
Less than 100	1
100 to 500	3
500 to 1000	5
Each additional 250 yds	1 additional sample

20. Unless the Department has determined other concentrations are required to protect public health and safety, predicted ambient air impact of any toxic pollutant, as determined by the PTPLU 6 model or other DARM approved models, shall not exceed the concentration calculated by the following formula:

$$AAC = \frac{40}{X} \cdot \frac{1}{\text{safety factor}} \cdot (OEL)$$

where,

AAC = Acceptable Ambient Concentration

Safety Factor = 100 for category A substances and
50 for category B substances

X = 40 or the hours/week of actual operation, whichever is larger

OEL - Occupational exposure level such as the TWA-TLV published by the ACGIH, OSHA, and NIOSH published standards for toxic materials.

TWA-TLV is the threshold limit value (8 hrs/day, 40 hrs/wk) maximum exposure concentration considered safe for workers by the ACGIH.

Data in the application shows that, for continuous operation, an emission of 1 gram/sec will have a maximum ambient impact of 6.2×10^{-3} mg/m^3 (1 hr.), 4.34×10^{-3} mg/m^3 (8 hr.), and 0.62×10^{-3} mg/m^3 (annual). If the stack parameters are different than the values listed in the application, the permittee must determine and use the actual impact factor calculated by the EPA Approved Screen - 1.1 Model or other DARM approved models.

$$\text{Maximum Allowable Emissions (g/sec)} = \frac{AAC \ (mg/m^3)}{\text{Max. Impact of 1 g/s } (mg/m^3)}$$

SPECIFIC CONDITIONS:

21. Pressure drop across the dryer's baghouse and temperature of the afterburner shall be recorded continuously during operations. The instruments used to obtain these measurements shall be properly calibrated, maintained, and in operation any time the unit is in service. The baghouse and the afterburner must be fully operational, as demonstrated by continuous monitoring instrumentation on the unit, whenever the system is being used to decontaminate soil. The baghouse shall be fully operational when the system is being used to dry stone.

Compliance Requirements

22. This unit shall be tested at a process weight rate of 36 to 40 TPH. All compliance tests shall meet the requirements listed in F.A.C. Rule 17-2.700. The unit shall not operate above the maximum permitted rate of 40 TPH of contaminated soil.

23. When the Department, after investigation, has good reason (such as complaints, increased visible emissions, or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Chapter 17-2, F.A.C., or in this permit is being violated, it may require the owner or operator of the unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the Department.

21. The exhaust stack for this process must be tested concurrently for particulate matter and visible emissions by EPA Methods 5 and 9 pursuant to 40 CFR 60, Appendix A, revised as of July 1, 1990, within 30 days after placing the unit in commercial operation under this permit and annually thereafter. The initial test and any test data submitted with an application for permit to operate (every 5 years) shall include analysis of the filter and impinger catch for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver along with similar analysis of the contaminated and treated soil processed during the test.

22. The unit destruction efficiency, benzene, and VOC emissions shall be established by a material balance using process weight, soil analysis and either Method 18 or 25 test (40 CFR 60, Appendix A, revised as of July 1, 1990) or other methods as approved by the Department. The afterburner temperature that existed during the compliance test shall be specified as the minimum operation temperature in any permit to operate issued for this unit.

SPECIFIC CONDITIONS:

Administrative Requirements

23. This permit requires compliance with any applicable local (county) regulations. This may include requirements for a county operation permit.

24. The Southeast District shall be notified in writing at least 15 days in advance of any annual compliance test to be conducted on this source.

25. Any analysis required by Specific Condition No. 17 which indicates a violation of any condition in this permit shall be reported as soon as feasible to the Southeast District. An average concentration of benzene above 1,599 ppm in the soil or total hydrocarbons above 6,000 ppm or metal concentrations above that listed in Specific Condition No. 17 is a potential violation of this permit. The soil may be decontaminated by operating at less than the 40 TPH production rate, or other means, with prior approval of the Department. The permittee must propose the method of compliance with this permit. Waste oil containing more than 500 ppm lead is also a violation of this permit.

26. Records shall be kept by the permittee on the location, date, time, and number of samples taken for each composite sample. Soil analysis results shall be available for Department inspection for minimum of 3 years.

27. Stack test results for PM and VOC shall be submitted to the Department (Southeast District) within 45 days of the test.

28. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

29. An application for an operation permit must be submitted to the Southeast District at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed

SPECIFIC CONDITIONS:

noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Carol M. Browner, Secretary

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:

Mr. James S. Jenkins III
Rinker Materials Corporation
P. O. Box 650679
Miami, FL 33265-0679

4. Article Number

P 407 852 697

Type of Service:

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

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

MAY 30 1991

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

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

P 407 852 697

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. James S. Jenkins III	
Street and No. Rinker Materials P. O. Box 650679	
P.O., State and ZIP Code Miami, FL 33265-0679	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Permit: AC 13-187599 Mailed: 5-22-91	

☆U.S.G.P.O. 1989-234-555

PS Form 3800, June 1985

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-240
Lawton Chiles, Governor
Carol M. Browner, Secreta

FAX TRANSMITTAL LETTER

DATE: July 15, 1991

TO:

NAME: Ewart Anderson
AGENCY: DERM

TELEPHONE: FAX: (305) 858-4872

OF PAGES (INCLUDE COVER SHEET): 3

FROM:

NAME: Willard Hanks

AGENCY: DER, BAR

IF ANY PAGES ARE NOT CLEARLY RECEIVED, PLEASE CALL IMMEDIATELY. PHONE NO. 904/488-1344

SENDER'S NAME: Willard Hanks

COMMENTS: Quick calculation shows no problem with metal impact from Rinker. Note Specific Condition no 20 of proposed permit doesn't allow impact to exceed acceptable ambient concentration. Specific Condition no. 21 Requires an emission test for metals which will let us check our assumptions. I will address Pat Wong's June 27 letter in the final determination based on the attached calculat.

Rinker - Impact of metal emissions at maximum allowable content

Maximum PM emission = 3.3 lbs/hr ~ 0.42 grams/sec
(average PM emission = 1 lb/hr ~ 0.129 g/s)

Max 1 hr impact of 1 g/s emission = 6.2 ug/m³ (from model)
Max 8 hr impact = (1 hr impact) x 0.7
Max 24 hr impact = (") x 0.4
Max annual impact = (") x 0.1

tal	max PPM in soil	max. metal emission, g/s	maximum AAQ impact (ug/m³) 1 hr	8 hr	24 hr	annual	no Threat level (ug/m³) 8 hr	24 hr	annual
senic	55	2.3×10^{-5}	1.4×10^{-4}	1×10^{-4}	5.7×10^{-5}	1.4×10^{-5}	2	0.48	2.3×10^{-4}
rium	2750	1.2×10^{-3}	7.4×10^{-3}	5.2×10^{-3}	3.0×10^{-3}	7.4×10^{-4}	5	1.2	50
dmium	55	2.3×10^{-5}	1.4×10^{-4}	1×10^{-4}	5.7×10^{-5}	1.4×10^{-5}	0.5	0.12	5.6×10^{-4}
romium	275	1.2×10^{-4}	7.4×10^{-4}	5.2×10^{-4}	3.0×10^{-4}	7.4×10^{-5}	0.5	0.12	8.3×10^{-5}
d	77	3.2×10^{-5}	2×10^{-4}	1.4×10^{-4}	7.9×10^{-5}	2×10^{-5}	1.5	0.36	9×10^{-2}
rcury	17	7.1×10^{-6}	4.4×10^{-5}	3.1×10^{-5}	1.8×10^{-5}	4.4×10^{-6}	0.5	0.12	0.3
enium	165	6.9×10^{-5}	4.3×10^{-4}	3×10^{-4}	1.7×10^{-4}	4.3×10^{-5}	2	0.48	
lver	165	6.9×10^{-5}	4.3×10^{-4}	3×10^{-4}	1.7×10^{-4}	4.3×10^{-5}	0.1	2.4×10^{-2}	3

sample

Arsenic emission = 0.42 g/s 55 ppm/1×10^{6} = 2.3×10^{-5} g/s of arsenic

1 hr Impact arsenic = (2.3×10^{-5} g/s)(6.2 ug/m³/g/s) = 1.4×10^{-4} ug/m³

8 hr Impact arsenic = (1.4×10^{-4})(0.7) = 1.0×10^{-4} ug/m³

24 hr " " = (")(0.4) = 5.7×10^{-5} ug/m³

annual " " = (")(0.1) = 1.4×10^{-5} ug/m³

Also, up to 0.13 lbs/hr lead emission allowed ~ 0.0164 g/s Pb

	AAQ Impact (ug/m³)			
	1 hr	8 hr	24 hr	annual
	0.1	0.07	0.04	0.01

03-08-91
10:40:25

*** SCREEN-1.1 MODEL RUN ***
*** DRAFT VERSION XXXXX ***

rinker stone dryer modification

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	1.000
STACK HEIGHT (M)	=	24.40
STK INSIDE DIAM (M)	=	1.40
STK EXIT VELOCITY (M/S)	=	9.50 (based on flow of 9990 dscfm, 28% H_2O + 800°F)
STK GAS EXIT TEMP (K)	=	700.00
AMBIENT AIR TEMP (K)	=	293.00
RECEPTOR HEIGHT (M)	=	.00
IOPT (1=URB,2=RUR)	=	2
BUILDING HEIGHT (M)	=	.00
MIN HORIZ BLDG DIM (M)	=	.00
MAX HORIZ BLDG DIM (M)	=	.00

BUOY. FLUX = 26.54 M**4/S**3; MOM. FLUX = 18.51 M**4/S**2.

*** FULL METEOROLOGY ***

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

*** 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	0	.0	.0	.0	.0	.0	.0	
100.	.5176E-02	6	1.0	1.6	5000.0	86.9	18.3	18.0	NO
200.	.6643	3	10.0	10.9	3200.0	45.5	24.0	14.7	NO
300.	3.852	3	10.0	10.9	3200.0	45.5	34.7	21.1	NO
400.	5.854	3	10.0	10.9	3200.0	45.5	45.1	27.2	NO
500.	6.185	3	10.0	10.9	3200.0	45.5	55.2	33.1	NO
600.	5.926	3	8.0	8.7	2560.0	51.9	65.2	39.2	NO
700.	5.987	1	1.0	1.1	320.0	259.8	166.5	223.7	NO
800.	6.182	1	1.0	1.1	320.0	259.8	184.1	290.9	NO
900.	5.793	1	1.0	1.1	320.0	259.8	201.7	369.3	NO
1000.	5.341	1	1.0	1.1	320.0	259.8	219.3	458.8	NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:									
481.	6.199	3	10.0	10.9	3200.0	45.5	53.4	32.0	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

8hr impact = $(6.2\times10^{-3})(0.7) = 4.34\times10^{-3}$ mg/m³

24 HR impact = 2.48×10^{-3} mg/m³ 8hr / 24 hr

YR impact = $(6.2\times10^{-3})\times(0.1) = 0.62\times10^{-3}$ mg/m³ annual

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

METROPOLITAN **DADE** COUNTY, FLORIDA

METRO-DADE

METRO-DADE CENTER

ENVIRONMENTAL RESOURCES MANAGEMENT
SUITE 1310
111 N.W. 1st STREET
MIAMI, FLORIDA 33128-1971
(305) 375-3376

June 27, 1991

Willard Hanks
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399

RE: Rinker Materials, Inc. - Rock Dryer Modification - AP-0532

Dear Mr. Hanks:

Pursuant to our telephone conversation this date on the ongoing DER review of the subject application to modify an existing rock dryer, to enable the processing of contaminated soil, this is to officially request that the Florida Department of Environmental Regulation expand its review to include computer modeling to evaluate potential ground level impacts of metals. In view of the history of complaints from neighboring citizens associated with the Rinker facility, we believe that it is essential to verify that the allowance of metals contamination in soils as listed in 17-775 and in DER's policy memo of July 19, 1990 will not result in ambient concentrations due to emissions from the dryer, which exceed the no threat levels for metals established by the Florida Air Toxics Working Group.

Please copy this Department with the results of said modeling for our review, and contact Ewart L. Anderson or myself at (305) 858-0601 with any questions you may have on the above.

Sincerely,

H. Patrick Wong
Chief, Air Section
Environmental Monitoring Division

ELA/aas
W. HANKS

METROPOLITAN DADE COUNTY, FLORIDA

METRO-DADE

METRO-DADE CENTER

ENVIRONMENTAL RESOURCES MANAGEMENT
SUITE 1310
111 N.W. 1st STREET
MIAMI, FLORIDA 33128-1971
(305) 375-3376

June 17, 1991

Clair Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399

RE: FDER Policy Revision for Soil Decontamination

Dear Mr. ~~Fancy~~ Clair:

With reference to our conversation on June 6, 1991, we are requesting further clarification in writing on the FDER revised policy memo dated July 19, 1990 concerning soil decontamination. This new policy stipulates routine analyses of soil concentration levels for metals only. Clarification of the policy as it pertains to halogens and VOC's is needed, especially as it will apply in areas such as Dade County that are designated as non-attainment for ozone.

Additionally, with regards to the application of the referenced policy to the Rinker Materials, Inc. (stone dryer) modification project, you advised that computer modelling was not incorporated in the FDER permit review. We feel that some assessment of the potential ground level impacts of the revised allowable metal content would be prudent, in light of the fact that the new policy allows metal levels in the contaminated soil emission as much as ten times as previously allowed.

Please review this matter and provide your Department's written response as early as possible, since this issue arises almost daily for staff conducting ongoing materials assessment.

You may contact Ewart Anderson or myself with any questions you may have on the above at (305) 858-0601.

Sincerely,

Patrick

H. Patrick Wong
Chief, Air Section
Environmental Monitoring Division

RECEIVED
JUN 21 1991
Division of Air
Resources Management

ELA/aas
c: W. Hanks 7/9/91

Rinker Materials

FACSIMILE

TRANSMISSION

CEMENT DIVISION OFFICE

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

TO: Mr. W. Ward Hanks

DATE: 6/14/91

LOCATION: FDER - Air

FROM: Mike Vardeman

FAX NUMBER
1-904-922-6979

NO. OF PAGES: 32
(Including this page)

Continuation Sheet

Page 15

Rinker Materials

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

June 12, 1991

Mr. Willard Hanks
Florida Department of Environmental Regulation
Twins Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Preliminary Determination

Dear Willard:

Attached are the suggested clarifications we propose in the language of the Technical Evaluation and Preliminary Determination and proposed permit for the construction (modification) of the existing dryer.

These comments are for your review prior to publication of the Notice of Intent to Issue. If there are questions, please contact me. Thank you for your assistance in this matter

Very truly yours,

Michael D. Vardeman
Manager Materials Substitution

MDV/lj
enc.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

RECEIVED MAY 30 1991

May 22, 1991

RECEIVED

JUN 20 1991

Division of Air Resources Management

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III
Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to construct (modify) your existing stone dryer. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The modification will allow the dryer to decontaminate soils containing petroleum fuels and lubricants.

This operation will also be subject to F.A.C. Rule 17-775, Soil Thermal Treatment Facilities, F.A.C. Rule 17-30, Hazardous Waste, and 40 CFR 260-271, including the regulations promulgated in the February 21, 1991, Federal Register, Burning of Hazardous Waste in Boilers and Industrial Furnaces.

"A"

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

Reference for proposed clarification

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/WH/plm

Attachments

c: J. Harper, EPA
I. Goldman, SE Dist.
P. Wong, DERM
Don Ehlenbeck, BWC
Satish Kastury, HWR

Proposed clarification "A"

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to construct (modify) your existing stone dryer. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th. Avenue, Miami, Dade County, Florida 33265-0679. The modification will allow the dryer to decontaminate soils containing petroleum fuels and lubricants.

"A" This operation will also be subject to F.A.C. Rule 17-775, Soil Thermal Treatment Facilities.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

DER File No. AC 13-187599

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue an air construction permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Rinker Materials Corporation, applied on October 5, 1990, to the Department of Environmental Regulation for a permit to construct (modify) the existing stone dryer. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The modification will allow the dryer to decontaminate soils containing petroleum fuels and lubricants.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a

hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copies furnished to:

J. Harper, EPA
I. Goldman, SE Dist.
P. Wong, DERM
Don Ehlenbeck, BWC
Satish Kastury, HWR

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 5-22-91.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statuts, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

5-22-91
Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (AC 13-187599) to Rinker Materials Corporation, Post Office Box 650679, Miami, Florida 33265-0679, to construct (modify) the existing stone dryer by the addition of low nitrogen oxides burners, baghouses, and a fume incinerator, so that it can decontaminate up to 40 TPH of soils containing petroleum fuels and lubricants. This dryer is located in the Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The regulations do not require a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination for this modification. The modified dryer may emit 1 lb/hr (avg.) and 4.4 TPY particulate matter, 0.13 lb/hr and 0.57 TPY lead, 5.5 lbs/hr and 24.0 TPY VOC, 17.2 lbs/hr and 40.2 TPY SO_2, 6.3 lbs/hr and 27.8 TPY NOx, and 2.1 lbs/hr and 9.2 TPY CO. These emissions will not cause a violation of any ambient air quality standard or Prevention of Significant Deterioration (PSD) increment. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Dade County Department of Environmental
Resources Management
Jose Marti Building
801 S.W. 3rd Avenue, 2nd Floor
Miami, Florida 33130

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Rinker Materials Corporation
Miami, Dade County, Florida

Stone Dryer Modification

File No.: AC 13-187599

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

May 21, 1991

I. General Information

A. Applicant

Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

B. Request

On October 5, 1990, Rinker Materials Corporation submitted an application for a permit to construct (modify) the existing stone dryer at their Portland cement manufacturing plant (SIC 3241) by the addition of low NOx burners, baghouses, and a fume incinerator. This control equipment was needed so that the stone dryer can be used to decontaminate soils containing petroleum fuels and lubricants. The application was revised and resubmitted on December 10, 1990. Additional information on this project was submitted on February 28, March 5, and May 10, 1991. The application was considered complete on receipt of applicant's March 5, 1991, letter.

C. Project

The applicant is currently decontaminating soil at their facility in the Portland cement manufacturing kiln. The applicant will transfer their soil decontaminating operation from the Portland cement manufacturing kiln to their stone dryer (AO 13-127621). Soil decontamination involves heating the contaminated soil to evaporate the petroleum products, removing the dust from this gas steam, and burning the evaporated petroleum products. To comply with the Department's policy that requires a minimum of 95% VOC destruction efficiency and other air pollution control regulations for soil decontamination operations, the applicant is installing low NOx burners, a baghouse, and a fume incinerator on the stone dryer. Also included in the project are heat exchangers (heat recovery) and raw material handling which is controlled by its own baghouse.

D. Emissions

The applicant proposes to decontaminate up to 40 TPH of soils contaminated with an average of 0.6% petroleum fuels and lubricants (gasoline, Nos. 1 thru 6 type fuel oils, and internal combustion engine motor oils) in a rotary kiln that uses up to 27.4 MMBtu/hr heat from waste oil (max. 500 ppm lead), No. 2 fuel oil, and natural gas. Total fuel oil consumption will be limited by the permit to 769,459 gallons per year. Dust from the gases leaving the kiln will be removed by a baghouse and the petroleum fumes will be burned in a 99.5% efficient natural gas fired fume incinerator. A separate baghouse will be used to control fugitive emissions caused by the handling of the treated soil. The unit will be allowed to operate continuously (8,760 hours per year).

The gases leaving the dryer will pass through an 85% efficient Joy-Western multicyclone to a 99.9% efficient Micropul baghouse to remove the entrained particulate matter. Up to 3.3 lbs/hr PM (1 lb/hr avg.) will pass through the baghouse (and afterburner) to the atmosphere. This particulate matter may contain up to 0.13 lbs/hr of Pb. The particulate matter captured by the multicyclone and dryer baghouse will be returned to the contaminated soil being fed to the dryer. The gases leaving the dryer baghouse, which will contain up to 480 lbs/hr of hydrocarbons evaporated from the soil, will pass through a heat exchanger system and a high efficiency afterburner fired by 15 MMBtu/hr of natural gas to reach a temperature of 1600°F for 0.75 seconds. Assuming a minimum afterburner destruction efficiency of 98.8%, 5.5 lbs/hr of VOC will be emitted through a 4.5 ft. diameter by 80 ft. high stack to the atmosphere. The burning of waste oil for fuel in the afterburner is prohibited.

The hot air from the heat exhangers will be sent to the low excess air dryer burners. Treated soil from the dryer will be transferred by the raw material gallery to the stacker. Fugitive dust from the transfer of the treated soil is controlled with a 99.9% efficiency Micropul baghouse. Maximum PM emissions from this baghouse is expected to be 0.02 gr/dscf and 0.5 lbs/hr.

Some soil treated in this unit may be contaminated with up to 800 ppm No. 6 fuel oil containing up to 2.1% sulfur. This sulfur, along with the sulfur in the fuel, will be converted to sulfur dioxide when it is burned and emitted to the atmosphere. The maximum sulfur dioxide emissions from the unit will be 17.18 lbs/hr. A restriction that limits fuel oil consumption by the unit to 769,459 gallons per year will cap sulfur dioxide emissions at 40.2 TPY. Over the previous 5 years, the stone dryer has emitted an average of 0.7 TPY of SO_2. Therefore, the net emissions increase of SO_2 will be less than the significant emissions rate of 40 TPY. As can be seen from the emissions table in Section I.D., the increase in emissions of the other criteria pollutants are less than the significant emissions rates.

At the mass emissions rate from the process proposed by the applicant, there should be no visible emissions from the system.

The guidance used by the Department to determine Acceptable Ambient Concentrations (AAC) of hazardous pollutants is based on the following formula:

$$\text{Acceptable Ambient Concentration (AAC)} = \frac{40}{\text{(hrs per week operation)}} \times \frac{1 \times \text{(OEL)}}{\text{Safety factor}}$$

The safety factors are 100 for category A substances and 50 for category B substances.

OEL - Occupational Exposure Level such as ACGIH, OSHA, and NIOSH published standards for toxic materials.

Soil thermal treatment facilities emit particulate matter (PM) including lead (Pb) compounds, volatile organic compounds (VOC), and the incomplete and complete products of combustion (SO_2, NO_x, and CO).

The maximum emissions expected from the operation are shown in the following table:

Pollutant	lbs/hr	TPY
PM	3.3 max/1 avg.	4.4
Pb	0.13	0.57
SO_2	17.2 max	40.2*
CO	2.1	9.2
VOC	5.5	24.0
NOx	6.3	27.8

*Restricting fuel oil consumption of the unit to 769,459 gal/yr will reduce potential SO_2 emissions from 75.2 to 40.2 TPY.

The fugitive dust baghouse will emit an additional 0.5 lbs/hr (2.3 TPY) PM.

Visible emissions from both baghouses should not exceed 5% opacity.

The unit will also be used, without the fume incinerator, to dry stones. "Off-spec" used oil containing a maximum of 500 ppm lead may be burned for fuel in the kiln.

II. Rule Applicability

The proposed project, modification of the existing stone dryer, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The source will be located in an area designated nonattainment for ozone (F.A.C. Rule 17-2.410), and attainment for all criteria pollutants (F.A.C. Rule 17-2.420).

The plant is a major facility (F.A.C Rule 17-2.100) because allowable emissions of PM, SO_2, and NOx can exceed 100 TPY for each of these air pollutants. Portland cement plants are on the List of 28, Major Facility Categories (F.A.C. Rule 17-2, Table 500-1). The project is not subject to the Prevention of Significant Deterioration (PSD) regulations (F.A.C. Rule 17-2.500) or the New Source Review for Nonattainment Areas (F.A.C. Rule 17-2.510) because the modification will not result in a significant net increase of any criteria pollutant. The project is subject to F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. Organic (VOC) emissions will be regulated under F.A.C. Rule 17-2.620, General Pollutant Emission Limiting Standards, which restrict emissions to controls as deemed necessary by the Department. The

Reference for proposed clarification "B"

Department deems 95% destruction of the VOC air pollutants as a minimum standard for this unit. Also, the discharge of air pollutants shall not cause an objectionable odor or an exceedance of any Acceptable Ambient Concentration (AAC) for any toxic pollutant. Other pollutants will be permitted at the emission rates requested by the applicant. Higher emissions could subject this source to other air pollution control regulations.

The source is also subject to F.A.C. Rule 17-775, Soil Thermal Treatment Facilities. Because the source will use "off-spec" waste oil as fuel for the kiln and treat soil contaminated with "off-spec" petroleum products, it may also be "B" subject to F.A.C. Rule 17-30, Hazardous Waste, and 40 CFR 260-271, including the regulations promulgated in the February 21, 1991, Federal Register, Burning of Hazardous Waste in Boilers and Industrial Furnaces. This evaluation addresses the requirements of F.A.C. Chapter 17-2, Air Pollution, only.

III. Technical Evaluation

Soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel oils, and motor oil) will be processed in the modified stone dryer. The modified dryer may also be operated, without the fume incinerator, to dry stone. "On and off-spec" petroleum fuel "B" may be burned in the dryer. The soil may contain "on and off-spec" petroleum products. Only natural gas fuel is used in the fume incinerator. "Off-spec" petroleum product contaminated soil cannot be treated without written permission from the Department.

The permittee may request, in writing, permission to treat "off-spec" petroleum material. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the "B" unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. After public notice, the Department will approve or deny each request in writing on a case-by-case basis.

Soil contaminated with petroleum products will be sampled and tested for the presence of PCBs (polychlorobiphenyls), BTEX (benzene, toluene, ethyl benzene, and xylene), and RCRA materials prior to decontamination. The PCB and RCRA tests may be waived if "B" the applicant can provide the Department with reasonable assurance that the soil is contaminated only with "on-spec" and virgin petroleum products.

The modified dryer will be capable of heating up to 40 TPH of contaminated soil to 1500°F using 27.4 MMBtu of "on-spec" waste oil with a maximum of 500 ppm Pb, No. 2 fuel oil with a maximum of 0.5% sulfur, or natural gas fuel. The soil is expected to contain up to 0.6% petroleum products. At this temperature, any gasoline, No. 2 through No. 6 fuel oil, or motor oil will be evaporated from the soil.

Proposed clarification "B"

Department deems 95% destruction of the VOC air pollutants as a minimum standard for this unit. Also, the discharge of air pollutants shall not cause an objectionable odor or an exceedance of any Acceptable Ambient Concentration (AAC) for any toxic pollutant. Other pollutants will be permitted at the emission rates requested by the applicant. Higher emissions could subject this source to other air pollution control regulations.

The source is also subject to FAC rule 17-775, soil thermal treatment facilities. The source is also permitted to burn "on-spec" and "off-spec" waste oil and treat "on-spec" and "off-spec" contaminated soils. These materials are not regulated as hazardous materials or fuels and are not "B" subject to 40 CFR 260-271 including the regulations promulgated in the February 21, 1991 Federal Register. Burning of Hazardous Waste in Boilers and Industrial Furnaces. This evalution addresses the requirements by FAC Chapter 17-2 Air Pollution only.

III Technical Evaluation

Soils contaminated with petroleum products (gasoline, Nos.2-6 fuel oils, and motor oil) will be processed in the modified stone dryer. The modified dryer may also be operated, without the fume incinerator, to dry stone. "B" "On and off-spec" petroleum fuel may be burned in the dryer. The soil may contain "on and off-spec" petroleum products. Only natural gas fuel is used in the fume incinerator. Contaminated soil not meeting the specifications in FAC 17-775 cannot be treated without written permission from the Department.

The permittee may request, in writing, permission to treat contaminated soils not meeting the specifications in FAC 17-775. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing "B" the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. Public notice may be required for the materials. The Department will approve of deny each request in writing on a case-by-case basis.

Soil contaminated with petroleum products will be sampled and tested as specified in FAC 17-775 prior to decontamination. The PCB and RCRA tests "B" may be waived if the applicant can provide the Department with reasonable assurance that the soil is contaminated only with "on-spec" and virgin petroleum products.

The modified dryer will be capable of heating up to 40 TPH of contaminated soil to 1500°F using 27.4 MMVtu of "on-spec" waste oil with a maximum of 500 ppm Pb, No. 2 fuel oil with a maximum of 0.5% sulfur, or natural gas fuel. The soil is expected to contain up to 0.6% petroleum products. At this temperature, any gasoline, No. 2 through No.6 fuel oil, or motor oil will be evaporated from the soil.

TWA-TLV values are published by the American Conference of Governmental Industrial Hygienists (ACGIH).

Other acceptable toxic concentrations are based on risk factor. The acceptable concentrations for benzene, the most toxic of the BTEX compounds expected to be in the petroleum products treated in this kiln, are 30 ug/m^3 (8 hr. std.), 7.1 ug/m^3 (24 hr. std.), and 0.12 ug/m^3 (annual std.).

Calculations, using the EPA approved Screen - 1.1 Model (updated PTPLU 6 Model) and the stack parameters listed in the application, show that an emission rate of 1 gram/sec will have maximum ambient air impacts of 6.2 ug/m^3 (1 hr.), 4.34 ug/m^3 (8 hr.), and 0.62 ug/m^3 (annual).

The maximum emissions that can occur without exceeding the AAC can be determined by the following relationship:

AAC = Impact of Unit x Emissions.

With this relationship and data, the Department can estimate the maximum emissions of a pollutant from the proposed unit that can occur without exceeding the AAC. Also, by knowing the process weight for the unit (40 TPH), assuming all VOC in the contaminated soil is evaporated in the kiln, and that 98.8% of this VOC is destroyed by the afterburner, the maximum content of the pollutants in the soil that can exist without the potential to exceed the AAC can be determined. The Department has made these calculations for benzene, the most toxic of the BTEX compounds.

The results show that benzene emission rates above 1.53 lbs/hr would exceed the annual AAC. If the soil contains more than 1,594 ppm benzene, this emission rate could be exceeded.

For soil contaminated with other than BTEX petroleum product components and derivatives, the applicant will be required to submit calculations showing the AAC or other concentrations needed to protect public health and safety will not be exceeded before the soil can be treated in this unit.

IV. Air Quality Analysis

Regulations do not require the applicant to determine the ambient air impact for the proposed stone dryer modification. Based on a screening model calculation of the impact of the proposed emissions from the stone dryer, the Department has reasonable assurance that its operation will not create a health hazard or cause/contribute to an ambient air violation.

V. Conclusion

Based on the information provided by Rinker Materials Corporation, the Department has reasonable assurance that the modification/operation of the 40 TPH stone dryer system, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

Barry D. Andrews
#36024
5-22-91

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Rinker Materials Corporation
P. O. Box 650679
Miami, Florida 33265-0679

Permit Number: AC 13-187599
Expiration Date: March 30, 1992
County: Dade
Latitude/Longitude: 25°46'48"N
80°25'10"W
Project: Modification of the Stone Dryer

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Authorization to modify the existing stone dryer system to decontaminate up to 40 TPH of soil containing petroleum products (gasoline, No. 2-6 fuel oils, and motor oil). Major components of the system are Gencor Ultraflame low excess air oil burners for the existing 7 ft. diameter by 80 ft. long rotary dryer, an 85% efficient Joy-Western multicyclone, a 99.9% efficient Micropul baghouse with 3,366 sq. ft. of cloth area, a 99.5% efficient natural gas fired IT/McGill afterburner capable of 0.75 seconds residence time at 1600°F, two heat exchangers for energy recovery, a raw material gallery controlled with a Micropul baghouse that discharges approximately 500 acfm at 400°F through a 1.0 ft. square stack that is 45 ft. high, material handling equipment (screens, inclined belt feeders, bucket elevator, crusher, and stacker), fuel systems ("on-spec" waste oil, "off-spec" waste oil, and No. 2 fuel oil for the dryer, and natural gas for the afterburner), a by-pass stack to be used only when the kiln is drying stone, and associated equipment. Air pollutants from the dryer are discharged in approximately 36,500 acfm of 800°F flue gases through a 4.5 ft. diameter by 80 ft. high stack.

This system is located at the permittee's Portland cement manufacturing plant at 1200 Northwest 137th Avenue, Miami, Dade County, Florida 33265-0679. The UTM coordinates of this site are Zone 17, 558.2 km E and 2851.3 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application received December 10, 1990.
2. Rinker's letter dated February 22, 1991.
3. EQ letter dated March 5, 1991.
4. EQ letter dated May 8, 1991.

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for

GENERAL CONDITIONS:

continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this facility shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The afterburner shall be capable of operating above 1600°F with a 0.75 second retention time. It shall have a minimum VOC destruction efficiency of 98.8 percent.

Emission Restrictions

4. Particulate matter emissions from the afterburner shall neither exceed 0.04 grains/dscf, nor 3.3 lbs/hr (max.)/1.0 lbs/hr (avg.).

SPECIFIC CONDITIONS:

Lead emissions shall not exceed 0.13 lbs/hr. Particulate matter emissions from the fugitive dust baghouse shall not exceed 0.02 grains/dscf, nor 0.5 lbs/hr. Visible emissions from any part of the process shall not exceed 5% opacity.

5. Benzene emissions from the afterburner shall not exceed 1.5 lbs/hr. Total VOC emissions shall not exceed 5.5 lbs/hr. Compliance shall be determined by a material balance using soil analysis, production rate, and the afterburner destruction efficiency.

6. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

7. The system shall be properly operated and maintained (F.A.C. Rule 17-2.210(2)). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly (F.A.C. Rule 17-2.240). The afterburner must be in service any time the stone dryer is used to decontaminate soil. The use of the afterburner is not required when the unit is used to dry stone.

8. Reasonable precautions shall be used to minimize unconfined emissions of particulate matter generated by this operation (F.A.C. Rule 17-2.610(3)). This includes hauling the soil in covered trucks, prompt clean-up of spills, and wetting the area when needed to minimize wind blown dust.

9. The unit shall not be operated in a manner that may create a nuisance.

10. Untreated soil removed from the ground shall be covered with a plastic sheet while in storage.

11. This unit shall be allowed to operate continuously, 24 hours per day, 7 days per week, and 52 weeks per year. The permittee shall maintain a log that shows the process (soil decontamination or stone drying), time, and dates the unit was operated.

12. Use of the existing cement kiln to decontaminate soil shall cease when the stone dryer begins operation as a soil

Reference for proposed clarification "C"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

decontamination unit or when this construction permit expires, whichever event occurs first.

13. Maximum soil charging rate to the unit shall not exceed 40 TPH. The permittee shall have means to determine the feed or production rate on the system.

14. The dryer is authorized to burn up to 27.4 MMBtu/hr of waste oil (193 GPH) containing a maximum of 0.4% sulfur and 500 ppm lead, No. 2 distillate oil (193 GPH) containing a maximum of 0.5% sulfur, and/or natural gas (460 CFM). The maximum fuel oil consumption shall not exceed 769,459 gallons in any 12 month period.

15. The fume incinerator is authorized to burn up to 15.0 MMBtu/hr of natural gas (250 CFM). The fume incinerator shall be in service any time the stone dryer is being used to process material containing contaminated soil. The by-pass stack must be closed when the unit is processing contaminated soil.

16. Only soils contaminated with virgin (non-recycled) petroleum products and "on-spec" used oil (see Specific Condition No. 17) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation (BAR). The soil decontamination system shall neither be used to thermally process materials that are listed in 40 CFR 261.31, 261.32, 261.33 (revised as of July 1, 1990) nor materials that have the hazardous characteristics of corrosivity, reactivity, EP toxicity, and ignitability. Prior to the acceptance of contaminated materials for processing, the permittee shall obtain reasonable assurance that the soil is contaminated with only virgin
"C" and/or "on specification" petroleum products. Reasonable assurance may be obtained by the sampling of the soil, by certification from owners regarding the history of the site, or by any other documentation or submission approved by the DER in such regard. If reasonable assurance is not available, the soil shall be assumed to be contaminated with "off-spec" material.

17. Only soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel, and motor oils) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation.

Hazardous waste as defined in 40 CFR 261.3 shall not be processed by this unit.

"C" Metals in the untreated soil shall not exceed the following:

Proposed clarification "C"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Experiation Date: March 30, 1992

SPECIFIC CONDITIONS:

decontamination unit or when this construction permit expires, whichever event occurs first.

13. Maximum soil charging rate to the unit shall not exceed 40 TPH. The permittee shall have means to determine the feed or production rate on the system.

14. The dryer is authorized to burn up to 27.4 MMBtu/hr of waste oil (193 GPH) containing a maximum of 0.4% sulfur and 500 ppm lead, No. 2 destillate oil (193 GPH) containing a maximum of 0.5% sulfur, and/or natural gas (460 CFM). The maximum fuel oil consumption shall not exceed 769,459 gallons in any 12 month period.

15. The fume incinerator is authorized to burn up to 15.0 MMBtu/hr of natural gas (250 CFM). The fume incinerator shall be in service any time the stone dryer is being used to process material containing contaminated soil. The by-pass stack must be closed when the unit is processing contaminated soil.

16. Only soils contaminated with virgin (non-recycled) petroleum products "on-spec" and "off-spec" used oil (see Specific Condition No. 17) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation (BAR). The soil decontamination system shall neither be used to thermally process materials that are listed in 40 CFR 261.31, 261.32, 261.33 (revised as of July 1, 1990) nor materials that have the hazardous characteristics of corrosivity, reactivity, EP toxicity, and ignitability. Prior to the acceptance of contaminated materials for processing, the permittee shall obtain reasonable assurance that the soil is contaminated with only virgin and/or "on specification" petroleum products. Reasonable assurance may be obtained by sampling of the soil, by certification from owners regarding the history of the site, or by any other documentation or submission approved by the DER in such regard. If reasonable assurance is not available, the soil shall be assumed to be contaminated with "off-spec" material.

"C"

17. Only soils contaminated with petroleum products (gasoline, Nos. 2-6 fuel, and motor oils) shall be treated in this unit unless otherwise approved by the Bureau of Air Regulation.

Hazardous waste as defined in 40 CFR 261.3 shall not be processed by this unit.

"C" Metals in the soils to be treated shall not exceed the following:

Reference for proposed clarification "D"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

Metals	Maximum Concentration TCLP(mg/L)	Total(mg/Kg)
Arsenic	5.0	55
Barium	100.0	2750
Cadmium	1.0	55
Chromium	5.0	275
Lead	5.0	77
Mercury	0.2	17
Selenium	1.0	165
Silver	5.0	165

Total Volatile Organic Aromatics (VOA) constituent in the soil shall not exceed the concentrations that have the potential to exceed the Acceptable Ambient Concentration or the VOC emission limit for this unit (see Specific Conditions Nos. 5 and 19).

To show compliance with this condition, the permittee shall analyze composite samples of the contaminated soil (see Specific Condition No. 18) by the EPA SW 846 Methods, Test Method for Evaluating Solid Waste Physical/Chemical, for VOA (EPA Method 5030/8020), TRPH (EPA draft Method 9073), and Metals (EPA Method 1311, 3050, 6010, 7040, 7041, 7060, 7061, 7080, 7130, 7131, 7190, 7191, 7420, 7421, 7471, and 7760). All soil samples taken at the remediation site and from the soil exiting the dryer shall be stored in a sealed clean glass container immediately upon sampling.

"D"

18. The permittee may request, in writing, permission to treat "off-spec" material. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for any toxic pollutant. After public notice, the Department will approve or deny each request in writing on a case-by-case basis.

19. Sampling and analysis of the contaminated soil, based on the procedures prescribed in SW-846, shall be conducted prior to remediation. Minimum number of composite samples for analysis at each site prior to remediation shall be as follows:

Proposed clarification "D"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

Metals	Maximum Concentration TCLP (mg/L)	Total (mg/Kg)
Arsenic	5.0	55
Barium	100.0	2750
Cadmium	1.0	55
Chromium	5.0	275
Lead	5.0	77
Mercury	0.2	17
Selenium	1.0	165
Silver	5.0	165

Total Volatile Organic Aromatics (VOA) constituent in thesoil shall not exceed the concentrations that have the potential to exceed the Acceptable Ambient Concentration or the VOC emission limit for this unit (see Specific Conditions Nos. 5 and 19).

To show compliance with this condition, the permittee shall analyze composite samples of the contaminated soil (see Specific Condition No. 18) by the EPA SW 846 Methods, Test Method for Evaluating Solid Waste Physical/ Chemical, for VOA (EPA Method 5030/8020), TRPH (EPA draft Method 9073), and Metals (EPA Method 1311, 3050, 6010, 7040, 7041, 7060, 7061, 7080, 7130, 7131, 7190, 7191, 7420, 7421, 7471, and 7760). All soil samples taken at the remediation site and from the soil exiting the dryer shall be stored in a sealed clean glass container immediately upon sampling.

18. The permittee may request, in writing, permission to treat materials not meeting the specifications in FAC 17-775. The request shall include the history of the soil to be treated, an analysis of the contaminants suspected to be in the soil, an estimate of the emissions from the unit while processing "D" the soil, and calculations showing that the ambient air impact from the unit will not exceed the Acceptable Ambient Concentration for nay toxic pollutant. Public notice may be required for Department as a part of Department review. The Department will approve or deny each request in writing on a case-by-case basis.

19. Sampling and analysis of the contaminated soil, based on the procedures prescribed in SW-846, shall be conducted prior to remediatin. Minimum number of composite samples for analysis at each site priore to remediation shall be as follows:

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

Soil Quantity ($yards^3$)	No. of Composite Samples
Less than 100	1
100 to 500	3
500 to 1000	5
Each additional 250 yds	1 additional sample

20. Unless the Department has determined other concentrations are required to protect public health and safety, predicted ambient air impact of any toxic pollutant, as determined by the PTPLU 6 model or other DARM approved models, shall not exceed the concentration calculated by the following formula:

$$AAC = \frac{40}{X} \cdot \frac{1}{\text{safety factor}} \cdot (OEL)$$

where,

AAC = Acceptable Ambient Concentration

Safety Factor = 100 for category A substances and
50 for category B substances

X = 40 or the hours/week of actual operation, whichever is larger

OEL - Occupational exposure level such as the TWA-TLV published by the ACGIH, OSHA, and NIOSH published standards for toxic materials.

TWA-TLV is the threshold limit value (8 hrs/day, 40 hrs/wk) maximum exposure concentration considered safe for workers by the ACGIH.

Data in the application shows that, for continuous operation, an emission of 1 gram/sec will have a maximum ambient impact of 6.2×10^{-3} mg/m^3 (1 hr.), 4.34×10^{-3} mg/m^3 (8 hr.), and 0.62×10^{-3} mg/m^3 (annual). If the stack parameters are different than the values listed in the application, the permittee must determine and use the actual impact factor calculated by the EPA Approved Screen - 1.1 Model or other DARM approved models.

$$\text{Maximum Allowable Emissions (g/sec)} = \frac{AAC \quad mg/m^3}{\text{Max. Impact of 1 g/s } (mg/m^3)}$$

Reference for proposed clarification "E"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

21. Pressure drop across the dryer's baghouse and temperature of the afterburner shall be recorded continuously during operations. The instruments used to obtain these measurements shall be properly calibrated, maintained, and in operation any time the unit is in service. The baghouse and the afterburner must be fully operational, as demonstrated by continuous monitoring instrumentation on the unit, whenever the system is being used to decontaminate soil. The baghouse shall be fully operational when the system is being used to dry stone.

Compliance Requirements

22. This unit shall be tested at a process weight rate of 36 to 40 TPH. All compliance tests shall meet the requirements listed in F.A.C. Rule 17-2.700. The unit shall not operate above the maximum permitted rate of 40 TPH of contaminated soil.

23. When the Department, after investigation, has good reason (such as complaints, increased visible emissions, or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Chapter 17-2, F.A.C., or in this permit is being violated, it may require the owner or operator of the unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the Department.

21. The exhaust stack for this process must be tested concurrently for particulate matter and visible emissions by EPA Methods 5 and 9 pursuant to 40 CFR 60, Appendix A, revised as of July 1, 1990, within 30 days after placing the unit in commercial operation under this permit and annually thereafter. The initial test and any test data submitted with an application for permit to operate (every 5 years) shall include analysis of the filter and impinger catch for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver along with similar analysis of the contaminated and treated soil processed during the test. "E"

22. The unit destruction efficiency, benzene, and VOC emissions shall be established by a material balance using process weight, soil analysis and either Method 18 or 25 test (40 CFR 60, Appendix A, revised as of July 1, 1990) or other methods as approved by the Department. The afterburner temperature that existed during the compliance test shall be specified as the minimum operation temperature in any permit to operate issued for this unit. "E"

Proposed clarification "E"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

21. Pressure drop across the dryer's baghouse and temperature of the afterburner shall be recorded continuously during operations. The instruments used to obtain these measurements shall be properly calibrated, maintained, and in operation any time the unit is in service. The baghouse and the afterburner must be fully operational, as demonstrated by continuous monitoring instrumentation on the unit, whenever the system is being used to decontaminate soil. The baghouse shall be fully operational when the system is being used to dry stone.

Compliance Requirements

22. This unit shall be tested at a process weight rate of 36 to 40 TPH. All compliance tests shall meet the requirements listed in F.A.C. Rule 17-2.700. The unit shall not operate above the maximum permitted rate of 40 TPH of contaminated soil.

23. When the Department, after investigation, has good reason (such as complaints, increased visible emissions, or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Chapter 17-2, F.A.C., or in this permit is being violated, it may require the owner or operator of the unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the Department.

24. The exhaust stack for this process must be tested concurrently for particulate matter and visible emissions by EPA Methods 5 and 9 pursuant to 40 CFR 60, Appendix A, revised as of July 1, 1990, within 30 days after placing the unit in commercial operation under this permit and annually thereafter. The initial test and any test data submitted with an application for permit to operate (every 5 years) shall include analysis of the filter and impinger catch for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver along with similar analysis of the contaminated and treated soil processed during the test. "E"

25. The unit destruction efficiency, benzene, and VOC emissions shall be established by a material balance using process weight, soil analysis and either Method 18 or 25 test (40 CFR 60, Appendix A, revised as of July 1, 1990) or other methods as approved by the Department. The afterburner temperature that existed during the compliance test shall be specified as the minimum operation temperature in any permit to operate issued for this unit. "E"

Reference for proposed clarification "F"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

Administrative Requirements

"F" 23. This permit requires compliance with any applicable local (county) regulations. This may include requirements for a county operation permit.

"F" 24. The Southeast District shall be notified in writing at least 15 days in advance of any annual compliance test to be conducted on this source.

"F" 25. Any analysis required by Specific Condition No. 17 which indicates a violation of any condition in this permit shall be reported as soon as feasible to the Southeast District. An average concentration of benzene above 1,599 ppm in the soil or total hydrocarbons above 6,000 ppm or metal concentrations above that listed in Specific Condition No. 17 is a potential violation of this permit. The soil may be decontaminated by operating at less than the 40 TPH production rate, or other means, with prior approval of the Department. The permittee must propose the method of compliance with this permit. Waste oil containing more than 500 ppm lead is also a violation of this permit.

"F" 26. Records shall be kept by the permittee on the location, date, time, and number of samples taken for each composite sample. Soil analysis results shall be available for Department inspection for minimum of 3 years.

"F" 27. Stack test results for PM and VOC shall be submitted to the Department (Southeast District) within 45 days of the test.

"F" 28. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

"F" 29. An application for an operation permit must be submitted to the Southeast District at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed

Proposed clarification "F"

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

Administrative Requirements

"F" 26. This permit requires compliance with any applicable local (county) regulations. This may include requirements for a county operation permit.

'F' 27. The Southeast District shall be notified in writing at least 15 days in advance of any annual compliance test to be conducted on this source.

"F" 28. Any analysis required by Specific Condition No. 17 which indicates a violation of any condition in this permit shall be reported as soon as feasible to the Southeast District. An average concentration of benzene above 1,599 ppm in the soil or total hydrocarbons above 6,000 ppm or metal concentrations above that listed in Specific Condition No. 17 is a potential violation of this permit. The soil may be decontaminated by operating at less than the 40 TPH production rate, or other means, with prior approval of the Department. The permittee must propose the method of compliance with this permit. Waste oil containing more than 500 ppm lead is also a violation of this permit.

"F" 29. Records shall be kept by the permittee on the location, date, time, and number of samples taken for each composite sample. Soil analysis results shall be available for Department inspection for minimum of 3 years.

"F" 30. Stack test results for PM and VOC shall be submitted to the Department (Southeast District) within 45 days of the test.

"F" 31. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

"F" 32. An application for an operation permit must be submitted to the Southeast District at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Carol M. Browner, Secretary

Best Available Copy

EQ FAX

Date of Transmittal: 5/13/91

Time of Transmittal: 3:35 pm

Number of Pages (including cover): 5

To Verify Receipt, Call: (919) 489 5299

To: Willard Hanks *Phone No:* 904 488-1344

Company: DER

Fax No: 904 922 6979

From: R. Hamm

Message:

Reiber test data

Environmental Quality Management, Inc.
3109 University Drive, Durham, North Carolina 27707
Tel: (919) 489 5299; Fax: (919) 489 5552

AIR POLLUTANT MEASUREMENTS AND SOIL TESTING DURING THERMAL PROCESSING OF CREOSOTE-CONTAMINATED SOIL

PINKER MATERIALS CORPORATION
MIAMI, FLORIDA

APRIL 5-6, 1989

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
[illegible] NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
[illegible] FAX [illegible]

1.0 INTRODUCTION

Rinker Materials Corporation operates a wet process cement plant in Dade County, Florida. During the test period of April 5-6, 1989, a limerock dryer at the plant permitted by Permit A013-127621 was used to thermally process soil contaminated with creosote. This test was approved by the Florida Department of Environmental Regulation as a one-time amendment to Permit A013-127621 by letter dated February 10, 1989. The intent of the test was to evaluate air emissions, soil decontamination efficiency and the possibility of routing the rock dryer exhaust gases to the cement kiln for incineration of the hydrocarbons stripped from the soil. By quantifying organic compounds that will eventually be directed to the cement kiln, both the effect of these compounds on the kiln and the effectiveness of the kiln for destroying these compounds can be evaluated.

During the test period, Koogler & Associates, Environmental Services, of Gainesville, Florida, conducted emission measurements on the rock dryer exhaust stack and collected integrated samples of both creosote-contaminated soil and processed soil. The emissions from the dryer were controlled by a cyclone collector. Hydrocarbon emissions were uncontrolled and simulate anticipated emissions into the cement kiln combustion zone. Emission measurements were conducted for particulate matter, semi-volatile organics, volatile organics, nitrogen oxides, selected metals, hydrogen chloride, and sulfur dioxide. Specific test methods are discussed in Section 4.0. Soil samples were analyzed for semi-volatile hydrocarbons and selected metals.

The processing rate of the contaminated soil during the test period varied from 12-15 tons per hour. The temperature of the discharged soil ranged from 900-1050 degrees Fahrenheit during the test period. Waste oil was utilized for the dryer fuel at a rate of 5.5 gallons per ton of soil processed.

4.0 FIELD AND ANALYTICAL PROCEDURES

Emission measurements were conducted for particulate matter, semi-volatile organics, volatile organics, nitrogen oxides, selected metals, hydrogen chloride, and sulfur dioxide. The stack gas velocity, stack gas moisture and stack gas oxygen measurements were made in conjunction with the MM5 tests. Stack gas velocity and moisture were measured in accordance with EPA Method 2 and EPA Method 4, respectively, and oxygen was measured with a zirconium oxide cell. The test methods used for collection of each sample are detailed below:

Parameter	Sampling Method
Particulate Matter	EPA Modified Method 5 (MM5)
Semi-Volatile Organics	EPA Modified Method 5 (MM5)
Volatile Organics	EPA Volatile Organic Sampling Train (VOST)
Nitrogen Oxides	EPA Method 7
~~Metals~~	~~EPA MM5 filter analysis (EPA-600/4-79-020)~~
Hydrogen Chloride	NaOH Absorber
Sulfur Dioxide	EPA Method 6

Particulate matter emission rates were determined from the filter portion of the MM5 sample train. Prior to this analysis, the filter was thoroughly washed with a methylene chloride/methanol mixture to remove any organics that were collected on the filter. The organics were combined with the MM5 samples. ~~After gravimetric analysis each filter was analyzed for metals in accordance with methods published in EPA Publication EPA-600/4-79-020.~~ The semi-volatiles collected in the MM5 sampling train were analyzed in

(5)

TABLE 1

RINKER MATERIALS CORPORATION
APRIL 5, 1989
PARTICULATE MATTER EMISSIONS

Run No.	Stack Gas Oxygen (%)	Stack Gas Flow Rate (SCFMD)	Stack Gas Temperature (Deg F)	Stack Gas Moisture (%)	Particulate Matter Conc. (gr/SCF)	Particulate Matter Emission Rate (Lbs/Hr
1	17.9	10,543	375.7	15.0	1.6071	145.56
2	18.0	9,800	355.0	13.8	1.7240	145.14
3	18.3	9,584	367.8	14.1	2.1920	180.48
Avg.	18.1	9,976	366.2	14.3	1.8410	157.06

analysis of oil burned during test is not available

TABLE 5

RINKER MATERIALS CORPORATION
APRIL 5, 1989
METALS
~~EMISSION RATE (#/hr)~~

Metal	Run 1	Run 2	Run 3	Average
Arsenic	0.226	0.194	0.199	0.206
Cadmium	0.002	0.002	0.002	0.002
Chromium	0.131	0.121	0.121	0.124
Hexavalent Chromium	0.002	0.001	0.003	0.002
Copper	0.109	0.096	0.095	0.100
Lead	0.135	0.112	0.096	0.114
Mercury	0.0001	0.0001	0.0001	0.0001
Zinc	0.291	0.285	0.251	0.276

TABLE 9

RINKER MATERIALS CORPORATION
APRIL 5, 1989
CONTAMINATED / PROCESSED SOIL
(mg/kg) OF METALS

Metal	Contaminated Soil	Processed Soil #1	Processed Soil #2	Processed Soil #3
Arsenic	129	129	130	124
Cadmium	1.7	1.6	1.8	1.6
Chromium	155	148	149	135
Hexavalent Chromium	<0.4	<0.4	<0.4	<0.4
Copper	90	114	93	80
Lead	19	21	24	22
Mercury	0.444	0.011	<0.007	<0.010
Zinc	52	53	60	57

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
3109 University Drive • Suite B
Durham, North Carolina 27707
(919) 489-5299
FAX (919) 489-5552

May 8, 1991

Mr. Willard Hanks
State of Florida
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32399-2400

Re: Lead Emissions

Dear Mr. Hanks:

Per our discussion concerning the expected lead emissions from the stone dryer, we have reviewed available data and have concluded the lead emission increase will not exceed 1200 lb/yr. Therefore, as originally expected the modification will not result in a significant increase under the definition for prevention of significant deterioration (PSD).

It is expected that 80 percent of the lead entering the unit in soil and waste fuel will remain in the treated soil. The remaining 20 percent will exit the dryer with the flue gases and be filtered in the fabric filter prior to entering the afterburner.

Because of the particle size of lead oxide fume, we estimate a worst-case filter efficiency of 90 percent. In reality, however, the lead fume will condense on larger particles and the filter efficiency will be higher. The actual improvement occurring through condensation cannot be determined without testing after construction.

Total lead entering the system is 56,766.6 lb/yr (2805 lb/yr fuel and 53,961.6 lb/yr soil). Uncontrolled emissions are expected to be 11,353.3 lb/yr (i.e., 20%). Controlled emissions are calculated to be 1135.3 lb/yr or 0.1296 lb/h.

Historic emissions are estimated to be 3.25 lb/yr based on a historic total suspended particulate (TSP) emission rate of 2.24 tons/yr with a lead content of 0.0725 percent.

I have enclosed a summary and mass flow diagram for the system. I hope this will be adequate for issuance of the permit to construct. If you have any questions, please give me a call at (919) 489-5299.

Sincerely,

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

Ronald L. Hawks

RLH/drd

Enclosure

Historic Pb Emissions

Pb in stack dust 0.114 lb/h at 15 tons/h rate

$$TSP = 157.06 \text{ lb/h}$$

$$Pb \simeq 0.0725\%$$

$$\text{Annual TSP} = 2.24 \text{ tons/yr}$$

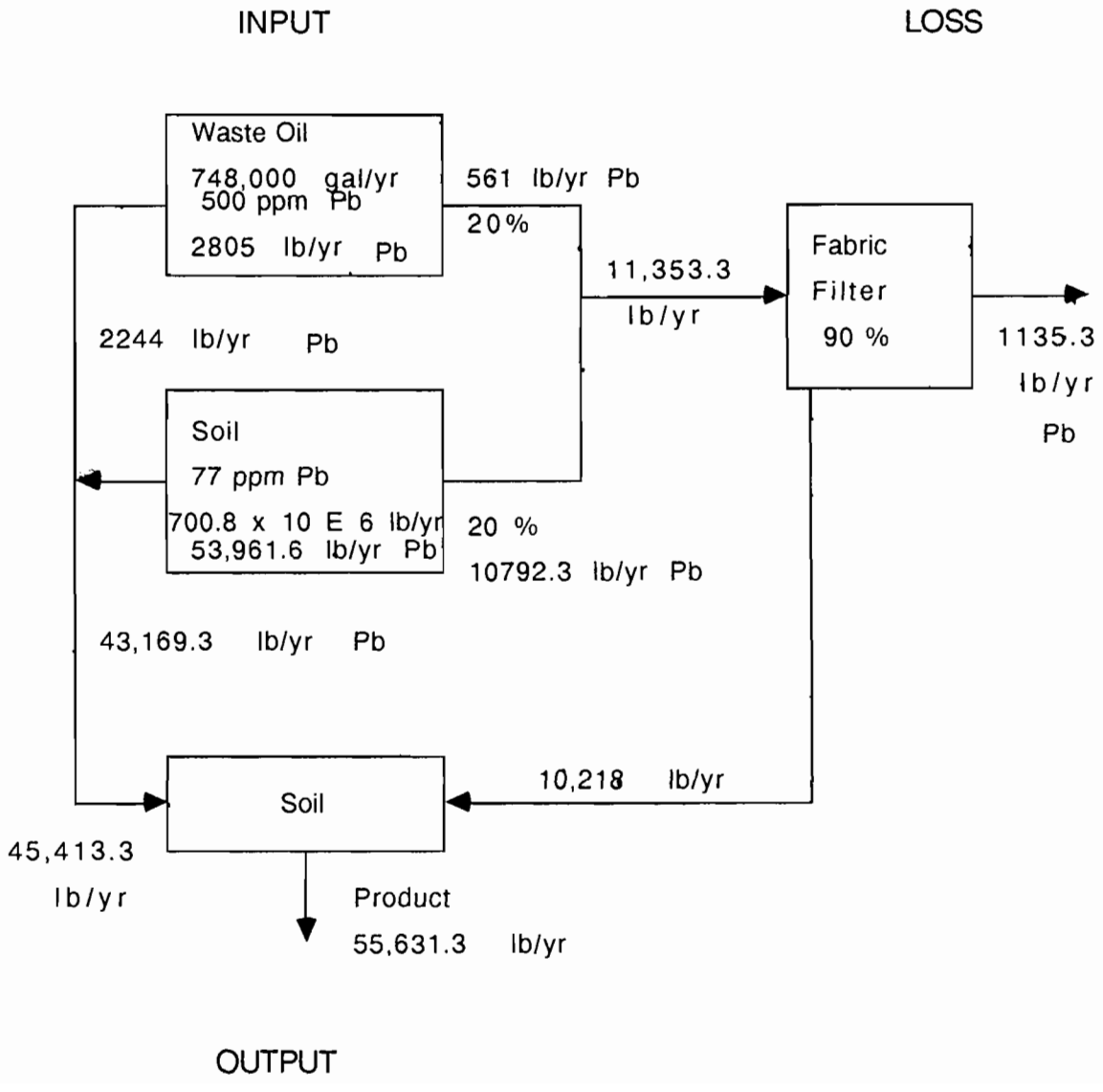
$$(2.24)(2000)\frac{(0.0725)}{(100)} = 3.248 \text{ lb/yr}$$

Expected Pb Emissions

$$1135.2 \text{ lb/yr} \rightarrow 0.1295 \text{ lb/h}$$

Net Change

$$1135.3 - 3.248 = 1131.95 \text{ lb/yr}$$


INPUT
LOSS
Waste Oil
748,000 gal/yr
500 ppm Pb
2805 lb/yr Pb
561 lb/yr Pb
20%
11,353.3
lb/yr
Fabric
Filter
90 %
1135.3
lb/yr
Pb
2244 lb/yr Pb
Soil
77 ppm Pb
700.8 x 10 E 6 lb/yr
53,961.6 lb/yr Pb
20 %
10792.3 lb/yr Pb
43,169.3 lb/yr Pb
Soil
10,218 lb/yr
45,413.3
lb/yr
Product
55,631.3 lb/yr
OUTPUT

Best Available Copy

CSR **Rinker Materials**

FACSIMILE

TRANSMISSION

CEMENT DIVISION OFFICE

Rinker Materials Corporation
1200 N.W. 137th Avenue
Miami, FL 33182

P.O. Box 650679
Miami, FL 33265-0679

Facsimile (305) 223-5403
Telephone (305) 221-7645

TO: Willard Hanks **DATE:** 5-10-91

LOCATION: STATE OF FLORIDA Department of Environmental Regulation **FROM:** Michael VARDEMAN Rinker Materials

FAX NUMBER 904-922-6979 **NO. OF PAGES:** 5 **(Including this page)**

Willard;

Enclosed are Ron Hanks calculations on the lead emissions. These were made using used oil off spec standards (i.e. ~~Pb 500 PPM or less~~)

The hard copy will follow.

I'll give you a call later.

Michael Vardeman

BEST AVAILABLE COPY

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
3109 University Drive • Suite B
Durham, North Carolina 27707
(919) 489-5299
FAX (919) 489-5552

May 8, 1991

Mr. Willard Hanks
State of Florida
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32399-2400

Re: Lead Emissions

Dear Mr. Hanks:

Per our discussion concerning the expected lead emissions from the stone dryer, we have reviewed available data and have concluded the lead emission increase will not exceed 1200 lb/yr. Therefore, as originally expected the modification will not result in a significant increase under the definition for prevention of significant deterioration (PSD).

It is expected that 80 percent of the lead entering the unit in soil and waste fuel will remain in the treated soil. The remaining 20 percent will exit the dryer with the flue gases and be filtered in the fabric filter prior to entering the afterburner.

Because of the particle size of lead oxide fume, we estimate a worst-case filter efficiency of 90 percent. In reality, however, the lead fume will condense on larger particles and the filter efficiency will be higher. The actual improvement occurring through condensation cannot be determined without testing after construction.

Total lead entering the system is 56,766.6 lb/yr (2805 lb/yr fuel and 53,961.6 lb/yr soil). Uncontrolled emissions are expected to be 11,353.3 lb/yr (i.e., 20%). Controlled emissions are calculated to be 1135.3 lb/yr or 0.1296 lb/h.

Historic emissions are estimated to be 3.25 lb/yr based on a historic total suspended particulate (TSP) emission rate of 2.24 tons/yr with a lead content of 0.0725 percent.

I have enclosed a summary and mass flow diagram for the system. I hope this will be adequate for issuance of the permit to construct. If you have any questions, please give me a call at (919) 489-5299.

Sincerely,

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

Ronald L. Hawks

RLH/drd

Enclosure

Historic Pb Emissions

Pb in stack dust 0.114 lb/h at 15 tons/h rate

TSP = 157.06 lb/h

Pb = 0.0725%

Annual TSP = 2.24 tons/yr

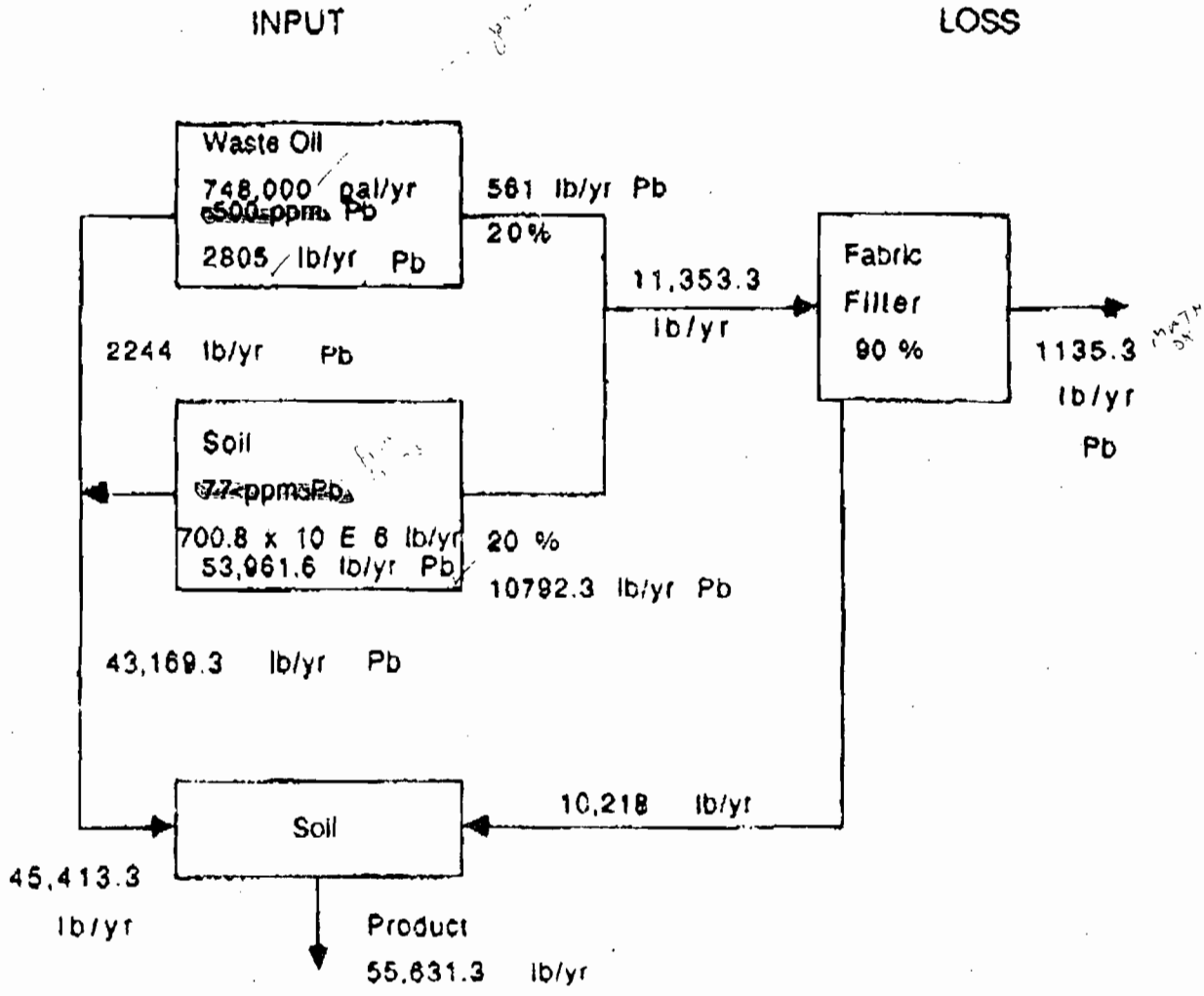
$$(2.24)(2000)\frac{(0.0725)}{(100)} = 3.248 \text{ lb/yr}$$

Expected Pb Emissions

1135.2 lb/yr → 0.1295 lb/h

Net Change

1135.3 - 3.248 = 1131.95 lb/yr


INPUT
LOSS
Waste Oil
748,000 gal/yr
2805 lb/yr Pb
561 lb/yr Pb
20%
11,353.3
lb/yr
Fabric
Filter
90 %
1135.3
lb/yr
Pb
2244 lb/yr Pb
Soil
700.8 x 10 E 6 lb/yr
53,961.6 lb/yr Pb
20 %
10782.3 lb/yr Pb
43,169.3 lb/yr Pb
Soil
10,218 lb/yr
45,413.3
lb/yr
Product
55,631.3 lb/yr
OUTPUT

RINKER MATERIALS 05/01/91

NAME	AFFILIATION	PHONE
E. GARY EARLY	FDER / OGC	(904) 488-9730
John E Griffin	FDER / DWM	(904) 488-0300
Mike Harley	FDER / ACE	(904) 488-1344
Doug Outlaw	FDER/DWM	(904) 488-0300
Michael VARDEMAN	RINKER MATERIALS	(305) 221-7645
BILL VOSHELL	RINKER MATERIALS	(407) 820-8348
RONALD HAWKS	ENVIRONMENTAL QUALITY	(919) 489 5299
WILLARD HANKS	FDER / BAR	(904) 488-1344
Barry Andrews	FDER / BAR	" " "

The Miami Herald

PUBLISHED DAILY
MIAMI — DADE — FLORIDA

STATE OF FLORIDA
COUNTY OF DADE:

RECEIVED
'91 APR 3 PM 1 04

FLA. DEPARTMENT OF
ENVIRONMENTAL REG.
WEST PALM BEACH

Before the undersigned authority personally appeared

ANN MARTULA

who on oath says that he/she is

CUSTODIAN OF RECORDS

of The Miami Herald, a daily newspaper published at Miami in Dade County, Florida; that the attached copy of advertisement was published in said newspaper in the issues of

MARCH 20, 1991

Affiant further says that the said The Miami Herald is a newspaper published at Miami, in the said Dade County, Florida and that the said newspaper has heretofore been continuously published in said Dade County, Florida, each day and has been entered as second class mail matter at the post office in Miami, in said Dade County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Ann Martula

Sworn to and subscribed before me this

day of March A.D. 19 91

My commission expires Linda L. Madigan

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. AUG. 1, 1992
BONDED THRU GENERAL INS. UND.

LINDA L. MADIGAN
NOTARY PUBLIC
STATE OF FLORIDA AT LARGE

Notice of Application

The Department of Environmental Regulation announces receipt of an application for a permit from Rinker Material Corporation to construct (modify) an existing rock dryer to evaporate and burn petroleum fuels and lubricants from soils contaminated by leaking fuel tanks, spills, etc. This stationary unit will operate in the cement manufacturing plant located at 1200 NW 137th Avenue, Miami, Dade County, Florida 33265-0679..

The application is being processed at the Department of Environmental Regulation, BAR, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Copies of the application are available for public inspection at this office and the following offices during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays:

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Dade County Department of Environmental Resources Management
111 NW 1st Street, Suite 1310
Miami, Florida 33128-1971

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address.

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location)

1. Willard Hanks, BAR, Tallahassee
2.
3. RECEIVED
4. APR 8 1991

Remarks:

DER - BAQM

I rec'd this 4-3-91
belongs to you.

From: Stephanie J. Brooks

Date 4-3-91

Phone 232-2650

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

FEB 08 1990

Mr. Satish Kastury
Environmental Administrator
Hazardous Waste Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone
Tallahassee, Florida 32399-2400

3/26/91 References

RE: Thermal Processing of Soils, Sludges, and Still Bottoms in Rotary Kiln/Afterburner System
Mid Florida Mining Company
EPA I.D. No. FLD 991 275 355

Dear Mr. Kastury:

It has recently come to our attention that Mid Florida Mining has applied to the Florida Department of Environmental Regulation's (FDER) Division of Air Resources Management for a permit to construct an afterburner as an addition to the currently operated rotary kiln clay dryer. This rotary kiln/afterburner system will then be used for the thermal destruction of volatile and semi-volatile organic compounds in soils, sludges, and still bottoms containing hydrocarbon products. The Draft Air Permit clearly states that these wastes will be non-hazardous. However, we are concerned about the effect of these activities on the facility's current standing under the Resource Conservation and Recovery Act (RCRA) regulations.

Mid Florida Mining currently has an FDER-issued RCRA permit for the storage of hazardous waste fuels prior to burning them in the rotary kiln for energy recovery. It was determined that the rotary kiln met the definition of an industrial furnace in 40 CFR §260.10 and, therefore, did not require a RCRA permit. An industrial furnace is defined as an enclosed device which is an integral part of a manufacturing process.

From reviewing the FDER's Draft Air Permit, it appears that of the 8,760 potential operating hours per year, Mid Florida Mining will be allowed to conduct soil decontamination for 8,300 hours, or approximately 95% of the operating time (see enclosure). The primary purpose of the unit will then be for incineration of the contaminated media, rather than use as an industrial furnace.

This distinction is reflected in the FDER Air Division's "Technical Evaluation and Preliminary Determination (Amended)", dated September 29, 1989. When operating the rotary

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location)

1. Willard Hanks BAR TT 310E
2.
3. FAX: (305) 223-5403
4.

Remarks:

I have enclosed a copy of an EPA letter sent out last year to address a similar situation to that of Rinker. EPA is interpreting that off-spec used oil used to decontaminate soils cannot be burned without first obtaining a RCRA incinerator permit. I don't necessarily agree with this, because if the contaminated soils are not a hazardous waste and the off-spec used oil is not a hazardous waste, why would a hazardous waste incinerator permit be necessary? I can discuss this with you further.

RECEIVED
MAR 27 1991
DER - BAQM

From: Bill Nevins

Date 3/26/91

Phone 8-0300

kiln/afterburner system as a two-chamber incinerator, the Source Classification Codes are "Incineration-Multiple Chamber" and "Incineration-Sludge." When operating the rotary kiln only, the Source Classification Codes are "In-Process Fuel Use-Residual Oil-General" and "Mining and Quarrying of Nonmetallic Minerals-Ore Dryer."

Since 40 CFR Part 266 limits the burning of hazardous waste fuels and off-specification used oil to boilers and industrial furnaces only, the burning of such materials in the rotary kiln/afterburner system when it is used as an incinerator would be in violation of these regulations.

We suggest that Mid Florida Mining be contacted to determine whether their proposed operating practices are as we have interpreted. If so, the facility should be informed that hazardous waste fuels and off-specification used oil may be burned in the rotary kiln only when it is being used as an industrial furnace, i.e., when manufacturing clay aggregate. When used as a solid waste incinerator, hazardous waste fuels and off-specification used oil may not be burned in either the rotary kiln or the afterburner without first obtaining a RCRA permit for operation of a hazardous waste incinerator.

Please copy my office on any correspondence between the FDER and Mid Florida Mining regarding this issue. Should you have any questions, please contact Robin Mitchell at (404) 347-3433.

Sincerely yours,

James H. Scarbrough

James H. Scarbrough, P.E.
Chief, RCRA Branch
Waste Management Division

Enclosure

cc: Laxsamee Levin, FDER, Central District

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To: _____ Location: _____
To: _____ Location: _____
To: _____ Location: _____
From: _____ Date: _____

Interoffice Memorandum

RECEIVED
MAR 14 1991
DER-BAQM

TO: Clair Fancy, DARM, TLH.

FROM: I. Goldman, SEFD

DATE: March 12, 1991

SUBJECT: Rinker Portland Cement - Contaminated Soils

We have been informed by Rinker that you verbally indicated that they could process contaminated soils in their kilns. The permit for this facility does not presently provide for contaminated soils processing.

Willard Hanks has advised us that the only application related to contaminated soils at this facility deals with the rock dryer which was to be ducted to the kiln so that the VOC loaded fumes could be reduced.

Since there is no written approval for the contaminated soils being processed in the Rinker kilns, we have no way of assuring that Rinker is in compliance with the conditions which formed the basis for such approval.

Processing contaminated soils through the rock dryer followed by processing the evaporated VOCs through one of the kilns is very different from processing the contaminated soils directly in the kiln.

Since this office has no written evidence that an approval has been granted for their use of a kiln to process contaminated soils, this office is contemplating enforcement action to bring the source into compliance with its permit.

If authorization has been given verbally for the subject operations, please provide this office with a copy of your written approval and the conditions for such approval. If not in the form of an enforceable permit modification, please provide us with the regulation which would enable us to enforce the conditions of any such approval.

Please provide the information requested above by March 29, 1991 if you wish enforcement action against Rinker to be avoided.

cc: Jim Pennington, DARM
Bill Voshell, Rinker Materials Corporation

Willard
for permit file
Clair

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
3109 University Drive • Suite B
Durham, North Carolina 27707
(919) 489-5299
FAX (919) 489-5552

March 5, 1991

Mr. Willard Hanks
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Rinker Cement Permit Application Dryer/Roaster

Dear Mr. Hanks:

Per our telephone conversation on March 5, 1991, concerning the sulfur content of the soils to be processed in the roaster/dryer, Rinker Portland Cement proposes to limit the maximum sulfur dioxide emissions from the soil to 2.68 lb/h. These emissions would occur if soil containing 800 ppm residual oil at 2.1 percent sulfur were processed at 40 tons/h.

Please note that the 850 ppm and 2.86 lb/h values in the first paragraph of page D-1 are in error and should be 800 ppm and 2.68 lb/h. Also the equation on page D-3 should also reflect 800 ppm and 2.68 lb/h.

I hope this clarifies the sulfur dioxide emissions from the soils. If you have any questions, please give me a call at (919) 489-5299.

Sincerely,

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

Ronald Hawks

Ronald L. Hawks
Director, Compliance and Engineering

cc: M. Vardeman
W. Voshell

RLH/drd

C: HANKS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
3109 University Drive • Suite B
Durham, North Carolina 27707

RALEIGH NC 276
PM
8 MAR
1991

MR. Willard Hanks
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

EQ

file

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

March 8, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III
Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Re: File No. AC 13-187599, Rock Dryer Modification

The Department has completed its preliminary review of your application for permit to modify the existing rock dryer at your plant located in Miami, Dade County, Florida. We find the application is now substantially complete.

Applicants for permits to construct soil remediation units are required to publish a Notice of Application on submittal of a complete application. Your Notice of Application is enclosed. You must publish the notice in a newspaper having general circulation in Dade County and provide the Department with proof of the publication. You will also be required to publish a Notice of Intent to Issue in the same newspaper should the Department approve your application.

We cannot complete the processing of your application until we receive the proof of publication. If you have any questions on this matter, please write to me or call Willard Hanks at 904-488-1344.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/WH/plm

Attachment

c: I. Goldman, SED
P. Wong, DERM

Notice of Application

The Department of Environmental Regulation announces receipt of an application for a permit from Rinker Material Corporation to construct (modify) an existing rock dryer to evaporate and burn petroleum fuels and lubricants from soils contaminated by leaking fuel tanks, spills, etc. This stationary unit will operate in the cement manufacturing plant located at 1200 NW 137th Avenue, Miami, Dade County, Florida 33265-0679.

The application is being processed at the Department of Environmental Regulation, BAR, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Copies of the application are available for public inspection at this office and the following offices during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays:

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Dade County Department of Environmental
Resources Management
111 NW 1st Street, Suite 1310
Miami, Florida 33128-1971

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. James S. Jenkins III
Rinker Materials Corp.
P.O. BOX 650679
Miami, Fl 33265-0679

4. Article Number
P 407 852 929

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

RECEIVED
MAR 22 1991
DER - BAQM

5. Signature — Addressee
X

6. Signature — Agent
X

MAR 14 1991

7. Date of Delivery

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

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

P 407 852 929

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to James S. Jenkins	
Street and No. Rinker Materials	
P.O., State and ZIP Code Miami Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date 3-8-91 AC13-187599	

☆U.S.G.P.O. 1989-234-555

PS Form 3800, June 1985

February 22, 1991

Mr. Willard Hanks
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Permit Application

Dear Mr. Hanks:

Per our meeting on January 30, 1991, we have reviewed our records concerning the operation of our stone dryer. Based on the past five years of records, we have operated the dryer a total of 850 h and used 95,625 gal of waste oil.

Enclosed are the revised attachments D, F, and G to our permit application. It should be noted that Rinker will accept a restriction in the operating permit that will limit the total waste oil or distillate oil consumption to 769,459 gal/year. This limit at 0.5 percent sulfur fuel produces a net SO_2 increase of 39.5 tons/year. Rinker will maintain records and fuel oil burning integrators necessary to establish compliance with the total fuel use limitations. The balance of the fuel input will be natural gas, which has a negligible sulfur content.

I hope this will resolve the issue of emission changes to the agency's satisfaction. If you have any questions or you need any additional information, please give me a call at (305) 221-7645.

Sincerely,

Rinker Portland Cement Corporation

Mike Vardeman

C: HANKS
S. Brooks, SE Dist
P. Wong, PERM

ATTACHMENT D

EMISSION ESTIMATES

Pollutant emission estimates are based on expected maximum operating conditions and worst-case feed material. The highest soil contamination is assumed to be 850 ppm of residual oil. This condition is not constantly expected but represents a worst-case situation. Because of the sulfur content of residual oil this increases the potential SO_2 loss from the dryer (14.37 lb/h fuel combustion and 2.86 lb/h process loss from soil).

NO_x emissions are calculated based on NO_x generation from low excess air dryer burner and low excess air afterburner. An additional adjustment is made based on experience with the total system gas volume.

A. NO_x

° Assumptions

- 150 ppm NO_x on dryer burner based on 30 percent excess air in dry flue gases
- 150 ppm NO_x on afterburner combustion based on burner dry flue gases
- 15 ppm additional NO_x in total dry gas volume
- Worst-case without organics; full burner operation

° Dryer

$$\frac{(27.5\text{x}10^6\ Btu/h)(8740\ scf/10^6\ Btu)(1.3)}{60\ \text{min}/h} = 5207 dscfm$$

$$\frac{(150\ x\ 10^{-6}\ scf\ NO_x\ /scf)(5207 scfm)(60\text{min}/h)}{12.8\ scf\ NO_x/lbNO_x} = 3.67\ lb/h$$

° Afterburner

° Afterburner

$$\frac{(15 \times 10^6\ Btu/h)(8740\ scf/10^6\ Btu)(1.3)}{60\ min/h} = 2841\ dscfm$$

$$\frac{(150 \times 10^{-6}\ scf\ NO_x/scf)(2841\ dscfm)(60\ min/h)}{12.8\ scf\ NO_x/lb\ NO_x} = 1.99\ lb/h$$

Total gas

$$\frac{(15 \times 10^{-6}\ scf\ NO_x/scf)(60\ min/h)(9773\ scfm)}{12.8\ scf\ NO_x/lb\ NO_x} = 0.687\ lb/h$$

Total NO_x = 6.34 lb/h

B. CO

° Assumptions

- 50 ppm CO remaining in afterburner flue gases (dry basis)
- 30 percent excess air

$$\frac{(50 \times 10^{-6}\ scf\ CO/scf)(9773\ scfm)(60\ min/h)}{13.76\ scf\ CO/lb\ CO} = 2.1\ lb/h$$

C. SO_2

° Assumptions

- Distillate oil used in dryer with sulfur content of 0.50 percent
- Fuel oil heat content 142,000 Btu/gal
- Dryer heat input 27.5 x 10^6 Btu/h
- Natural gas used on afterburner
- Maximum 850 ppm residual oil in soil at 2.1 percent S

$$\frac{27.5 \times 10^6 \ Btu/h}{142{,}000 \ Btu/gal} = 193.7 \ gal/h$$

$$\left[193.7 \ \frac{gal}{h}\right]\left[7.4 \ \frac{lb}{gal}\right] = 1433 \ lb/h$$

$$100 \qquad (1433 \text{ lb/h}) = 14.32$$

° Afterburner

$$(15 \times 10^6 \ \frac{Btu}{h}) \rightarrow neg. \ sulfur$$

° Fuel in Soil

(2)(40 ton/h)(2000 lb/ton)(850 x 10^{-6})(2.1/100 %S) = 2.68 lb/h

Total SO_2 = 17.18 lb/h

D. VOC

° Potential (40 tons/h)(2000 lb/ton)(6000 x 10^{-6}) = 480 lb/h

° Controlled (1 - 0.988)(480 lb/h) = 5.48 lb/h

E. PM

° Assumptions

- 0.02 gr/acf at baghouse exit

$$\frac{(5716 \ dscfm)(0.02 \ gr/dscf)(60 \text{ min}/h)}{7000 \ gr/lb} = 0.97 \ lb/h$$

Afterburner firing rate

$$\frac{15 \times 10^6 \ Btu/h}{1100 \ Btu/cf \ (10^6)} = 0.0136 \ mm \ cf/h$$

$$(0.0136 \ mm \ \frac{cf}{h})(1.0 \ \frac{lb}{mm \ cf}) = 0.0136 \ lb/h \ (neg)$$

Total PM < 1.0 lb/h

EXPECTED ANNUAL POTENTIAL EMISSIONS

	lb/h	lb/yr	tons/yr
PM	1200	10,512,000	5256
SO_2	17.18	80,420	40.21
CO	2.1	18,396	9.19
VOC	480	4,204,800	2102.4
NO_x	6.34	55,538	27.77

ANNUAL ACTUAL CONTROLLED EMISSIONS

	lb/h	lb/yr	tons/yr
PM	1.0	8,760	4.38
SO_2	17.18	80,420	40.21
CO	2.1	18,396	9.19
VOC	5.48	48,000	24.0
NO_x	6.34	55,538	27.77

ATTACHMENT F

HISTORIC EMISSION ESTIMATES

A. NO_x

° Assumptions

- Emission rate 0.133 lb/10^6 Btu
- Existing burner without NO_x control or excess air control

Heat input = (25 ton/h)(4.5 gal/ton)(142,000 Btu/gal) = 15.97 x 10^6 Btu/h

NO_x = (0.133 lb/10^6 Btu)(15.97 x 10^6 Btu/h) = 2.12 lb/h

NO_x = (2.12 lb/h)(170 h/yr) (1 ton/2000 lb) = 0.18 tons/yr

B. CO

° Assumptions

- Dryer excess air at stack 134%
- Stack flow rate approximately 5750 dscfm
- Stack CO concentration approximately 400 ppm (v/v) dry

$$CO = \frac{(400 \times 10^{-6} \text{ scf CO/scf})(5750 \text{ scfm})(60 \text{ min/h})}{(13.76 \text{ scf CO/lb CO})} = 10.03 \text{ lb/h}$$

CO = (10.03 lb/h)(170 h/yr)(1 ton/2000 lb) = 0.85 tons/yr

C. SO_2

° Assumptions

- Distillate oil used in dryer with sulfur content of 0.50 percent
- Fuel oil heat content 142,000 Btu/gal
- Dryer production rate 25 tons/h
- Fuel efficiency 4.5 gal/ton stone
- 170 h/yr operation (5 year average)

Production = (170 h/yr)(25 tons/h) = 4,250 tons/yr

Fuel usage = (4,250 tons/yr) (4.5 gal/ton) = 19,125 gal/yr

SO_2 = (1 ton/2000 lb)(19,125 gal/yr)(2)(0.5 %S/100)(7.4 lb/gal) = 0.71 tons/yr

D. VOC

Contaminated soils have not historically been processed in the drier.

E. PM

° Assumptions

- Emissions have been consistent with permit allowables (i.e., 26.41 lb/h)

- Production rate 25 tons/h

PM = (26.41 lb/h)(170 h/yr)(1 ton/2000 lb) = 2.24 tons/yr

HISTORIC ANNUAL POTENTIAL EMISSIONS

	lb/h	lb/yr	tons/yr
PM	750	127,500	63.75
SO_2	8.32	1,414	0.71
CO	10.03	1,705	0.85
VOC	0	0	0
NO_x	2.12	360	0.18

HISTORIC CONTROLLED EMISSIONS

	lb/h	lb/yr	tons/yr
PM	26.41	4,500	2.24
SO_2	8.32	1,420	0.71
CO	10.03	1,700	0.85
VOC	0	0	0
NO_x	2.12	360	0.18

ATTACHMENT G

NET CHANGE IN EMISSIONS

	Actual historic		Actual proposed		Change	
	lb/h	tons/yr[a]	lb/h	tons/yr	lb/h	tons/yr
PM	26.41	2.24	1.0[b]	4.38	-25.41	2.14
SO_2	8.32	0.71	17.18	40.21[c]	8.86	39.50
CO	10.03	0.85	2.1	9.19	-7.93	8.34
VOC	0	0	5.48	24.00	5.48	24.00
NO_x	2.12	0.18	6.34	27.77	4.22	27.59

[a] Based on 5 year average of 170 h/year operation (100h, 100h, 100h, 250h, and 300h)

[b] Maximum of 4 lb/h (Average 1.0 lb/h)

[c] Maximum fuel oil use of 769,459 gal/year at 0.5% S, 7.4 lb/gal, maximun SO_2 from S in the soil of 11.74 ton/year

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor | Dale Twachtmann, Secretary | John Shearer, Assistant Secretary

December 27, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III
Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Re: File No. AC 13-187599, Rock Dryer Modification

The Department has reviewed Mr. William Voshell's November 28, 1990, letter that provided additional information which had been requested on the proposed modification of your stone dryer. We are requesting clarification of the contemporaneous emission change calculations (question No. 2 of our Nov. 1 letter). Actual emission calculations must be based on actual operation parameters (production, hours of operation, etc.). Your historic emission estimates (Attachment F) were based on continuous operation (8,760 hrs/yr) of the stone dryer at its permitted production rate (25 TPH). We suspect that the unit did not operate continuously at its permitted rate. Please recalculate your contemporaneous emission changes using actual emissions as defined in the regulations (F.A.C. Rule 17-2.100(3)). If the calculations show a significant emissions increase of any pollutant (Table 500-2 of Chapter 17-2, F.A.C.), you will need to submit the additional data required by F.A.C. Rule 17-2.500 to confirm that the project will comply with the Prevention of Significant Deterioration regulations.

We will resume processing the application after the requested information is received. If you have any questions on this matter, please write to me or call Willard Hanks at 904-488-1344.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/WH/plm

c: I. Goldman, SE Dist.
P. Wong, DERM
W. Voshell, Rinker

III.B.4. CREDITABLE AMOUNT

As mentioned above, only contemporaneous and creditable emissions changes are considered in determining the source-wide net emissions change. All contemporaneous and creditable emissions increases and decreases at the source must, however, be considered. The amount of each contemporaneous and creditable emissions increase or decrease involves determining old and new actual annual emissions levels for each affected emission unit.

The following basic criteria should be used when quantifying the increase or decrease:

- For proposed new units which have not begun normal operations, the potential to emit must be used to determine the increase from the units.
- For an existing unit, actual emissions just prior to either a physical or operational change are based on the lower of the actual or allowable emissions levels. This "old" emissions level equals the average rate (in tons per year) at which the unit actually emitted the pollutant during the 2-year period just prior to the change which resulted in the emissions increase. These emissions are calculated using the actual hours of operation, capacity, fuel combusted and other parameters which affected the unit's emissions over the 2-year averaging period. In certain limited circumstances, where sufficient representative operating data do not exist to determine historic actual emissions and the reviewing agency has reason to believe that the source is operating at or near its allowable emissions level, the reviewing agency may presume that source-specific allowable emissions (or a fraction thereof) are equivalent to (and therefore are used in place of) actual emissions at the unit. For determining the difference in emissions from the change at the unit, emissions after the change are the potential to emit from the units.
- A source cannot receive emission reduction credit for reducing any portion of actual emissions which resulted because the source was operating out of compliance.
- An emissions decrease cannot be credited from a unit that has not been constructed or operated.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. James S. Jenkins III
Rinker Materials Corp.
P..O. Box 650679
Miami, FL 33265-0679

4. Article Number
P 407 852 907

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery
JAN - 4 1991

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

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

P 407 852 907

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. James S. Jenkins, Rinker Materials	
Street and No. P. O. Box 650679	
P.O., State and ZIP Code Miami, FL 33265-0679	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 1-2-91 Permit: AC 13-187599	

PS Form 3800, June 1985 ☆U.S.G.P.O. 1989-234-555

Rinker Materials

Rinker Materials Corporation
1501 Belvedere Road
West Palm Beach, FL 33406

P.O. Box 24635
West Palm Beach, FL 33416

Facsimile (407) 659-4361
Telephone (407) 833-5555

November 28, 1990

Mr. C. H. Fancy, P.E. Chief
Bureau of Air Regulation
Florida Dept. of Environmental Regulations
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: File No. AC 13-187599-Rock Dryer Modification

Dear Mr. Fancy:

This acknowledges receipt of the Department's letter dated November 1, 1990, regarding the preliminary review of the Rinker Materials rock dryer modification. Find enclosed a resubmittal of the original construction permit application that also addresses the additional information requested. To assist in the permit review process,we have also included as an attachment a short narrative discussion on each item referenced in the November 1, 1990 letter.

Should there be any other question call me at (407)820-8348.

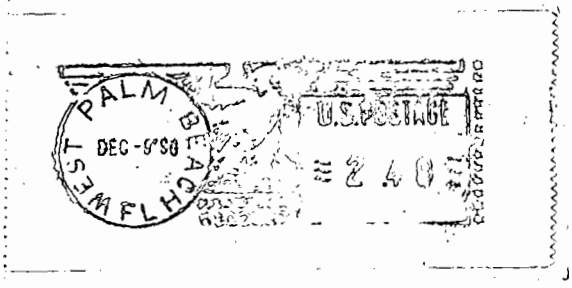
Sincerely,

RINKER MATERIALS CORPORATION

William Voshell

William E. Voshell
Environmental Manager

Attachments (2)



RINKER MATERIALS CORP.

P.O. BOX 24635
WEST PALM BEACH, FLORIDA
33416-4635

TO:

Mr. C. H. Fancy, P.E. Chief
Bureau of Air Regulation
Fla. Dept. of Environmental Reg.
Twin Towers Office Bld.
2600 Blair StoneRd.
Tallahassee, Fla 32399-2400

ATTACHMENT

Item 1- A copy of permit AO 13-177168 issued 5/3/90 is enclosed

Item 2- Contemporaneous emissions for criteria pollutants are 115.68 tons/yr. PM, 36.46 tons/yr. SO_2 , 9.29 tons/yr NOx , 0 tons/yr. VOC, and 43.93 tons/yr. CO. Calculations and assumptions are provided in Attachment F of the revised permit application.

Item 3- Donald A. Beers, P.E.
P.O. Box 24635
West Palm Beach, Fl 33416

Item 4- The dryer will be equipped with a by-pass stack which will allow continued use as a stone dryer. Use of the dryer as a soil treatment system is secondary to the primary function as part of the cement manufacturing process. The secondary stack will be installed between the dryer baghouse and afterburner. This stack will only be used when the dryer is processing virgin stone. This mode of operation is necessary to prevent fouling of heat exchangers and reduce pressure drop through the system when the afterburner is not required.

Item 5- The criteria pollutant emission rates for which a permit is requested are PM 1.0 lb/h (4.38 tons/yr), SO_2 17.18 lb/h (75.25 tons/yr.), NOx 6.34 lb/h (27.77 tons/yr), VOC 5.48 lb/h (24.0 tons/yr.), and CO 2.1 lb/h (9.19 tons/yr.). Calculations and assumptions for the requested rates are provided in Attachment D of the revised permit application.

Item 6- Experience has indicated that soil contaminated with residual oils at high sulfur content are not normally received for treatment. It is estimated that the average concentration of residual oil in soils will be less than 850 ppm. This would increase the emissions of SO_2 by 2.86 lb/h (12.5 tons/yr.) if these soils were received on a normal basis. It is expected that the major portion of VOC to be treated would be gasoline and other light hydrocarbons. The maximum expected to be received would be 6000 ppm which would result in a potential emission of 480 lb/h (2102.4 tons/yr.) if all soils processed were received at this level of contamination.

Item 7- It is expected that the baghouse to be installed on the dryer and used on the gallery discharge system will have an emission rate $\leq$ 5 percent opacity and $\leq$ 0.02 gr/dscf.

Item 8- Rinker Materials is a permitted facility allowed to burn "on spec" and "off spec" waste oil as fuel. Rinker wishes to retain the option to burn either waste oil type and process soils containing "on spec" and off spec" waste oils. Should further discussion be necessary, please advise.

Item 9- Fuel oil and waste oil used in the stone dryer will have a maximum sulfur content of 0.5 percent. See revised permit application for fuel specification.

Item 10- Map is enclosed showing location of dryer afterburner stack, dryer by-pass stack, and fugitive dust baghouse stack.

Item 11- The maximum expected heat input to the dryer is 27.4×10^6 Btu/h when processing light organic type contaminants in soil. This heat input is slightly higher than the expected heat input of 25.4×10^6 Btu/h which is required when preheated combustion air is provided from the afterburner. The maximum heat input to the afterburner is expected to be 15×10^6 Btu/h but may be reduced through the use of heat exchangers and when heat from VOC being oxidized is included.

Item 12- The data provided in Tables 1, 2, and 3 are heat and mass balances for four potential operating conditions for the dryer afterburner system. These four conditions were developed to define the range of heat input and gas volumes expected for control equipment sizing. Case No.1 represents conditions requiring maximum soil temperature (1500°F) and use of preheated combustion air. Case No. 2 represents conditions expected when light organics or low concentrations in soil are expected and lower soil temperature can be used (1000°F). Case No.'s 3 and 4 are identical to Case No.'s. 1 and 2 except that the assumption was made that preheat combustion air could not be used.

Item 13- The basis for calculation of afterburner residence time is provided in Attachment H of the revised permit application.

Item 14- Rinker proposes to contain treated soil from the dryer using a stacker located on the north side of the raw material gallery. This unit restricts free fall of soil and allows material to discharge to the gallery through a series of doors which reduce fugitive dust. The stacker allows fugitive dust generated by free fall into the stacker to be contained. The stacker and elevator will be vented to a baghouse and PM captured. This design has been shown to be effective in controlling fugitive dust generated from transfer of bulk materials to storage piles. All dust collected will be returned to the stacker via an air lock and discharge tube. Also the raw material gallery is enclosed on the top and two sides. The treated soil storage area is near the center of the clinker/raw material gallery and will not be exposed to ambient wind conditions.

Florida Department of Environmental Regulation

Southeast District ● 1900 S. Congress Ave., Suite A ● West Palm Beach, Florida 33406 ● 407-964-9668

Bob Martinez, Governor | Dale Twachtmann, Secretary | John Shearer, Assistant Secretary
Scott Benyon, Deputy Assistant Secretary

PERMITTEE:
Mr. William E. Voshell, Jr.
Environmental Manager
Rinker Materials Corporation
P. O. Box 24635
West Palm Beach, Florida 33416

I.D. NUMBER: 50/DAD/13/0014
PERMIT/CERTIFICATION NUMBER: AO 13-177168 *
DATE OF ISSUE: MAY 23 1990
EXPIRATION DATE: April 15, 1995
COUNTY: Dade
LATITUDE/LONGITUDE: 25°46'48"N/80°25'10"W
UTM: Zone 17; 558.0 Km. E; 2851.5 Km. N
PROJECT: Rinker Materials Corporation
Stone Dryer

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule 17-2, and in conformance with all existing regulations of the Florida Department of Environmental Regulation. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

OPERATE: An air pollution source consisting of a 25 T/hr.stone dryer with a Model 9VGR12 Western Precipitater Multicyclone, a Norblo Model 240AMS fabric-type Dust Collector on the east bank of silos, and a similar dust collector on the west bank of silos. The stone dryer emits particulate to the atmosphere at a height 77 feet above ground level and the dust collectors emit particulate 122 feet above ground level.

IN ACCORDANCE WITH: Application for Renewal of Permit to Operate Air Pollution Sources received March 7, 1990 and Applications to Operate Air Pollution Sources dated July 11, 1975 (stone dryer), April 1, 1976 and April 3, 1976 (east and west banks of silos) (none are attached).

LOCATED AT: 1200 Northwest 137 Avenue, Miami, Dade County, Florida.

TO SERVE: A cement manufacturing plant (SIC # 3241).

SUBJECT TO: General Conditions 1-14 and Specific Conditions 1-9.

* This permit is a renewal of AO 13-127621 issued January 16, 1987.

DER Form 17-1.201 (57)
Effective November 30, 1982

PERMITTEE:
Mr. William E. Voshell, Jr.
Rinker Materials Corporation
West Palm Beach, Florida

I.D. NUMBER: 50/DAD/13/0014
PERMIT/CERTIFICATION NUMBER: AO 13-177168
DATE OF ISSUE: MAY 23 1990
EXPIRATION DATE: April 15, 1995

SPECIFIC CONDITIONS:

1. Compliance testing shall be conducted for the sources covered by this permit by February 18, 1991 and annually thereafter in accordance with the methods specified below.

2. Emission limiting standards are as follows:

   a. Rock Dryer:

      In accordance with Florida Administrative Code Rule 17-2.610(1)(a)1. - No person shall cause, let, permit, suffer or allow the discharge of any pollutants in excess of the allowables in Table 610-1 or the following formula

      $E = 3.59P^{0.62}$ where

      P is the process rate and is less than or equal to 30 tons/hour, and E is the emission rate in lb./hr.

   b. Rock Dryer and Silos

      In accordance with Florida Administrative Code Rule 17-2.610(2)(a) - No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere any air pollutants with an opacity greater than or equal to 20 percent.

3. The compliance test report shall include results of tests by the following methods:

Source/Emission Point	Pollutant	Test Method
Stone Dryer	Particulate	EPA Method 5*
	Visible Emissions	DER Method 9
Silo Dust Collectors	Visible Emissions	EPA Method 9

   *Particulate and visible emissions testing shall be performed concurrently.

   The compliance test report shall be submitted to the Department in accordance with Florida Administrative Code (F.A.C.) Rule 17-2.700(7).

4. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source. Otherwise the Department may require the test to be repeated or modify the permit to reflect tested rates and/or fuels.

5. The Department shall be notified of expected test dates at least fifteen (15) days prior to compliance testing.

6. On or before March 1 of each calendar year, a completed DER Form 17-1.202(6), Annual Operations Report Form for Air Emissions Sources shall be submitted to the Department.

7. Copies of all reports, tests, notifications or other submittals required by this permit shall be submitted to both the Department of Environmental Regulation, Southeast District Office and Dade County Environmental Resources Management.

8. Unconfined emissions of particulate shall be controlled by the following means:

   a) Paved parking and trafficked areas shall be maintained and kept free of particulate matter build-up; and

   b) Sprinkling with water shall be used as necessary on paved areas and stockpiles.

PERMITTEE:
Mr. William E. Voshell, Jr.
Rinker Materials Corporation
West Palm Beach, Florida

I.D. NUMBER: 50/DAD/13/0014
PERMIT/CERTIFICATION NUMBER: AO 13-177168
DATE OF ISSUE: MAY 23 1990
EXPIRATION DATE: April 15, 1995

SPECIFIC CONDITIONS:

9. The permittee shall be aware of and operate under the attached "General Permit Conditions #1 thru 14.". General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

Issued this 23rd day of May, 1990

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

J. Scott Benyon
Deputy Assistant Secretary

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406 • 407-964-9668

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Scott Benson, Deputy Assistant Secretary

SOURCE TYPE: Afterburner [ ] New[1] [x] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [X] Modification

COMPANY NAME: Rinker Materials Corporation COUNTY: Dade

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired): stone dryer

SOURCE LOCATION: Street 1200 Northwest 137th Avenue City Miami

UTM: East Zone 17;558.2 km North 2851.3 km

Latitude 25 ° 46 ' 48 "N Longitude 80 ° 25 ' 10 "W

APPLICANT NAME AND TITLE: James S. Jenkins III, Vice President Cement Operations

APPLICANT ADDRESS: P. O. Box 650679, Miami, Florida 33265-0679

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Rinker Materials Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Furthe I agree to maintain and operate the pollution control source and pollution contr facilities in such a manner as to comply with the provision of Chapter 403, Flori Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferab and I will promptly notify the department upon sale or legal transfer of the permitt establishment.

*Attach letter of authorization

Signed: James S. Jenkins

James Jenkins, V.P. Cement Operations
Name and Title (Please Type)

Date: 12/3/90 Telephone No. 305-221-7645

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project ha been designed/examined by me and found to be in conformity with modern engineeri principles applicable to the treatment and disposal of pollutants characterized in t permit application. There is reasonable assurance, in my professional judgment, th

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed _____

Donald A Beers
Name (Please Type)

Rinker Materials Corporation
Company Name (Please Type)

P.O. Box 24635 WPB, Fl 33416
Mailing Address (Please Type)

Florida Registration No. 32530 Date: 12/6/90 Telephone No. 407/820-8346

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Modify existing stone dryer to process petroleum contaminated soil pursuant to Florida DER Policy Memorandum dated August 1, 1990. Project will include a baghouse and afterburner to fully comply with all rules and regulations.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction 2/1/91 Completion of Construction 10/30/91

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Baghouse $80,000
Afterburner $500,000

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AO 13-127621, DER permit dated May 23, 1990.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? Yes

   c. If yes, list non-attainment pollutants. VOC

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? Yes

   a. If yes, for what pollutants? VOC

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

Controlled VOC emissions less than 25 tons/yr.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Soil	Limestone, sand	100	72,000	Attachment A 4
	Petroleum	6000 ppm	480 avg.	Attachment A
	Water	10	8,000	Attachment A

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 40 tons/h (10% moisture)

2. Product Weight (lbs/hr): 36 tons/h (0% moisture)

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
PM	<1.0	4.38	Process weight eq.	31.0		5256	7
VOC	5.48	24.0	95% control	24.0		2102	7
CO	2.1	9.2		NA		9.2	7
NO_x	6.3	27.8		NA		27.8	7
SO_2	17.18	75.25				75.25	7

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3] Calculated from operating rate and applicable standard.

[4] Emission, if source operated without control (See Section V, Item 3).

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

fugitive dust baghouse

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
PM	0.5	2.3	Process wt eq.	31			
	(0.02 gr/dscf)						

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Multicyclone	PM	85	>10 μm	Engr. calculatio
Baghouse	PM	99.9	>1.0μm	Engr. calculatio
Afterburner	VOC	99.5	NA	Design

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Waste oil	193 gal/min	193 gal/min	27.4
Dist. oil	193 gal/min	193 gal/min	27.4
Natural gas	2.5×10^4 ft^3	2.5×10^4 ft^3	27.4

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: 0.50% Distillate
0.40 Waste oil

Percent Sulfur: _____ Percent Ash: unknown

Density: 7.4 lbs/gal Typical Percent Nitrogen: unknown

Heat Capacity: _____ BTU/lb 142,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average 0 Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Processed soil to be returned to site as clean fill per Florida DER 17-775 F.A.C. or used as substitute cement raw materials.

D. Control Devices: (See Section V, Item 4) fugitive dust baghouse

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
micropul BH	PM	99.9	>1.0 µm	design

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Waste oil components.

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 80 ft. Stack Diameter: 4.5 ft.

Gas Flow Rate: 36,500 ACFM 9770 DSCFM Gas Exit Temperature: 800 °F.

Water Vapor Content: 28 % Velocity: 50 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated						480	
Uncontrolled (lbs/hr)						480	

Description of Waste: Petroleum products in dryer flue gases

Total Weight Incinerated (lbs/hr): 480 Design Capacity (lbs/hr): 480

Approximate Number of Hours of Operation per day: 24 day/wk: 7 wks/yr.: 52

Manufacturer: IT/McGill

Date Constructed: 10/1/91 Model No.: custom design

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber	746	15×10^6	N.G.	15×10^6	1600
Secondary Chamber					

Stack Height: 80 ft. Stack Diameter: 4.5 Stack Temp. 800

Gas Flow Rate: 36,500 ACFM 9770 DSCFM* Velocity: 50 FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [X] Afterburner

[ ] Other (specify)

fugitive dust baghouse

4. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 45 ft. Stack Diameter: 1.0 x 1.0 ft.

Gas Flow Rate: 5000 ACFM 3070 DSCFM Gas Exit Temperature: 400 °F.

Water Vapor Content: 0 % Velocity: 60 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: Afterburner system will consist of heat exchanger to preheat flue gases; afterburner; heat exchanger to preheat dryer combustion air and stack

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^{2*} _____ Wind spd/dir

Period of Monitoring ____/____/____ to ____/____/____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

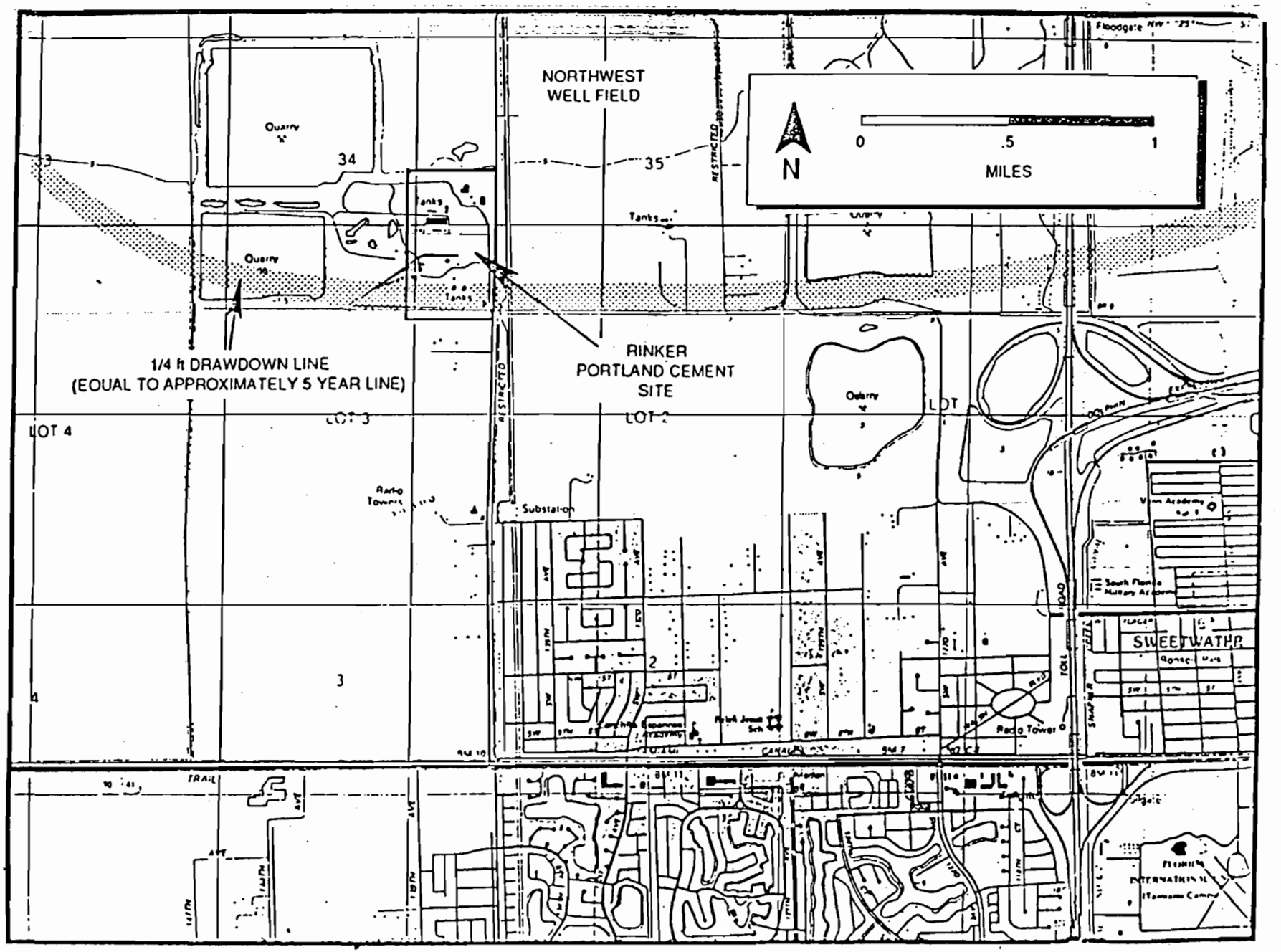
Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

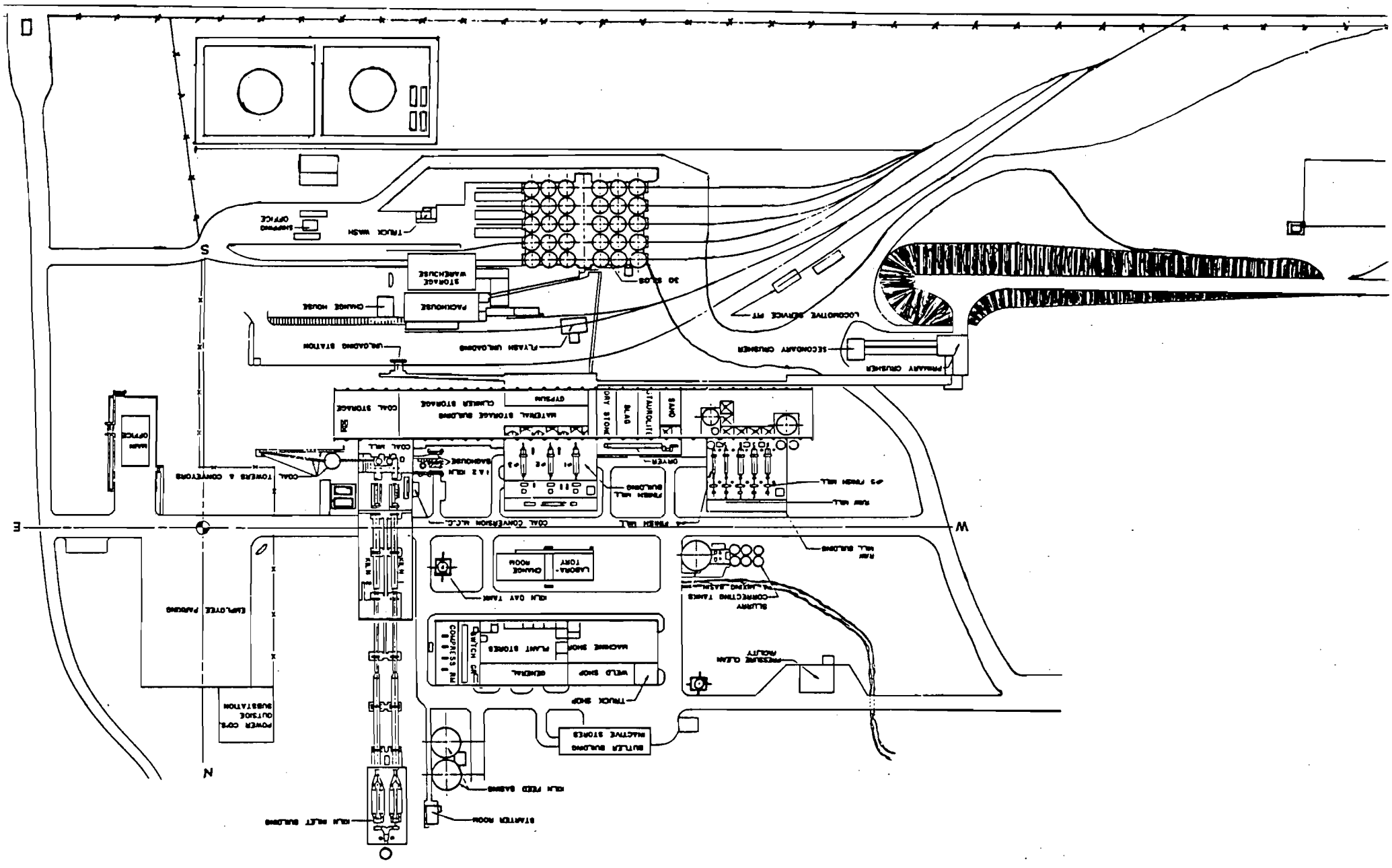
G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

BEST AVAILABLE COPY



BEST AVAILABLE COPY



ATTACHMENT A

DRYER DESCRIPTION

The existing stone dryer is a 7 by 80 foot rotary dryer that was installed as part of the original plant equipment. Because of the higher temperatures required to remove petroleum products from soil, the burner and drum are to be modified to achieve a product temperature of 1500°F. The existing Todd Shipyard burner will be replaced with a Gencor ultraflame burner to provide a design heat input of 27.5 x 10^6 Btu/h. This burner is a low excess air design (30%) and provides maximum turn down and control stability.

To insure complete soil desorption and uniform temperature, the drum will be flighted and soil preheated in the drum as it moves countercurrent to the flame. Maximum production will be 40 tons/h with production adjusted to rates necessary to produce the required soil discharge temperatures. The soil temperature required will be determined by type of petroleum product and concentration.

The operation will reduce petroleum levels in the soil to clean fill standards (i.e., <5 ppm), which can allow the soil to be returned to the clean up site or used in the cement plant raw feed.

All particulate matter collected by the multicyclone and baghouse will be returned to the feed to ensure complete contaminate removal. The dust system will use screw conveyors and elevator.

Tables 1, 2, and 3 are heat and mass balances for the dryer at 27.5 tons/h feed rate (heavy organics) and 40 tons/h (light organics). Figure A-1 is a flow diagram for the system. Figures A-2 and A-3 are dryer mass balance outputs at 1000°F and 1500°F, respectively.

Feed System Description

Soil will be received and the required tests performed to ensure compliance with off-specification used oil limitations (i.e., arsenic, lead, halogens, etc.). The soil will be placed in the raw material gallery in separate bins for discharge to the roaster. Before placement in the roaster, the soil will be screened to remove large rocks, debris, trash, roots, etc. Oversize stone will be crushed and rescreened to insure uniform feed size to the roaster. Soil will be transferred to the roaster feed bin using an inclined belt feeder. Treated soil will be discharged from the roaster and transferred to the raw material gallery using a bucket elevator and drop leg (stacker).

TABLE 1. DRYER OPERATING CONDITIONS

	1[a]	2[b]	3[c]	4[d]
Feed rate, tons/h	27.5	40.0	27.5	40.0
Moisture, %	10	10	10	10
Product rate, tons/h	24.75	36.0	24.75	36.0
Drum speed, RPM	7.0	8.5	7.0	8.5
Flue gas weight, lb/h	28,636	33,551	30,447	35,562
CO_2, % volume	11.79	11.79	11.79	11.79
O_2, % volume	5.06	5.06	5.06	5.06
N_2, % volume	83.1	83.1	83.1	83.1
H_2O, % volume	34.3	39.6	32.98	
Temperature, °F	350	350	350	350
Volume, acfm	10,872	13,060	11,487	16,875
Combustion air weight, lb/h	21,957	24,248	23,675	26,157
Temperature, °F	400	400	90	90
Fuel Type	oil	oil	oil	oil
Fuel weight, lb/h	1,179.5	1,302.0	1,271.8	1,405.2
Heat input, 10^6 Btu	23.0	25.4	24.8	27.4
Efficiency, 10^6 Btu/ton (wet)	0.83	0.63	0.90	0.68
Efficiency, 10^6 Btu/ton (dry)	0.92	0.70	1.00	0.76
Product temperature, °F	1,500	1,000	1,500	1,000
Burner excess air, %	30	30	30	30

[a]Heavy VOC contaminants requiring high temperature using preheated combustion air.
[b]Light VOC contaminants requiring lower temperature using pre-heated combustion air.
[c]Heavy VOC contaminants requiring high temperature using ambient combustion air.
[d]Light VOC contaminants requiring lower temperature using ambient combustion air.

TABLE 2. DRYER MASS BALANCE

	1[a]	2[b]	3[c]	4[d]
Mass input				
Fuel, lb/h	1,179.5	1,302.6	1,271.8	1,405.1
Stone, lb/h	55,000.0	80,000	55,000.0	80,000.0
Combustion air, lb/h	21,956.9	24,248.1	23,675.0	26,157.4
Total, lb/h	78,136.4	105,550.7	79,947.9	107,562.5
Mass output				
Dry flue gases, lb/h	21,818.1	24,094.8	23,525.9	25,992.3
Wet gases, lb/h	6,818.3	9,455.8	6,921.2	9,570.2
Dry stone, lb/h	49,500.0	72,000.0	49,500.0	72,000.0
Total, lb/h	78,136.4	105,550.7	79,947.9	107,567.5

[a]Heavy VOC contaminants requiring high temperature using preheated combustion air.
[b]Light VOC contaminants requiring lower temperature using pre-heated combustion air.
[c]Heavy VOC contaminants requiring high temperature using ambient combustion air.
[d]Light VOC contaminants requiring lower temperature using ambient combustion air.

TABLE 3. DRYER HEAT BALANCE

	1[a]		2[b]		3[c]		4[d]	
	10^6 Btu/lb	%	10^6 Btu/lb	%	10^6 Btu/lb	%	10^6 Btu/lb	%
Heat input								
Fuel	23.00	90.62	27.40	96.52	24.80	97.06	25.40	90.19
Stone	0.273	1.07	0.397	1.40	0.273	1.07	0.397	1.42
Moisture liquid	0.154	0.606	0.224	0.79	0.154	0.60	0.224	0.79
Combustion air	1.955	7.70	0.364	1.29	0.329	1.29	2.141	7.60
Total	25.38	100.00	28.385	100.00	25.55	100.00	28.163	100.00
Heat output								
Dry stone	14.32	56.60	13.73	48.46	14.32	56.07	13.73	48.91
Dry flue gases	1.495	5.91	1.782	6.28	1.613	6.32	1.65	5.88
Moisture	8.288	32.75	11.63	41.03	8.41	32.93	11.49	40.93
Radiation	1.200	4.74	1.20	4.23	1.20	4.69	1.20	4.28
Total	25.30	100.00	28.34	100.00	25.54	100.00	28.07	100.00

[a]Heavy VOC contaminants requiring high temperature using preheated combustion air.
[b]Light VOC contaminants requiring lower temperature using pre-heated combustion air.
[c]Heavy VOC contaminants requiring high temperature using ambient combustion air.
[d]Light VOC contaminants requiring lower temperature using ambient combustion air.

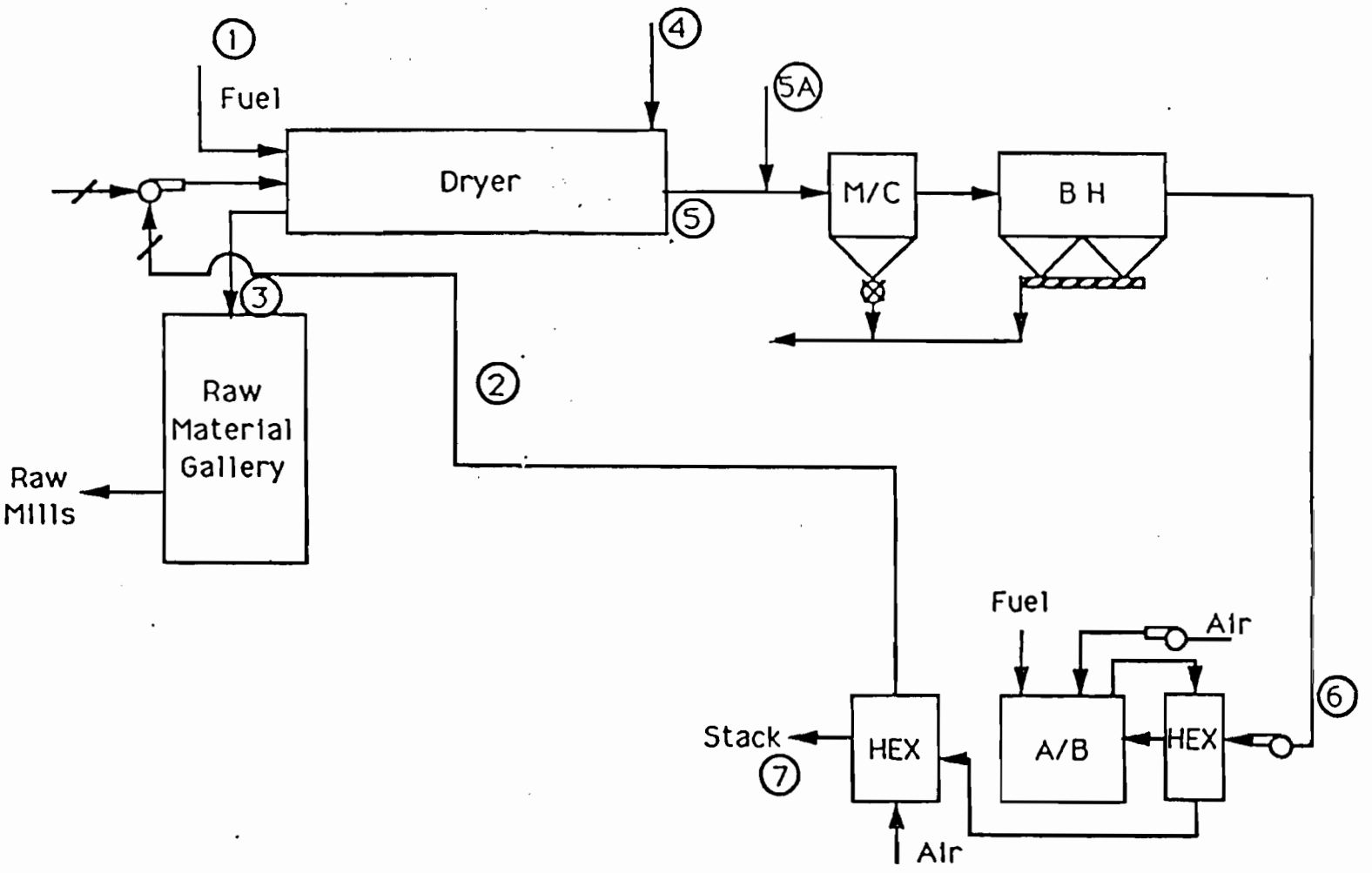


Figure A–1. Dryer flow diagram/mass balance.

STREAM NO.	MEDIA TYPE	MASS LB/HR	TEMP F	FLOW WSCFM	FLOW DSCFM	FLOW ACFM	CO2 %V/V	O2 %V/V	N2 %V/V	H2O %V/V	CO2 LB/HR	O2 LB/HR	N2 LB/HR	H2O LB/HR
1	OIL	1302.0	90	-	-	-	-	-	-	-	-	-	-	-
2	AIR	24248.0	400	5388	5388	8777	0.00	20.90	79.10	0.00	0	5626	18622	0
3	DRY STONE	72000.0	1000	-	-	-	-	-	-	-	-	-	-	-
4	WET STONE	80000.0	60	-	-	-	-	-	-	-	-	-	-	5565
5	FLUE GAS	33550.6	350	8513	5139	13060	11.79	5.06	83.13	39.60	4156	1294	18634	9456
5A	AIR	2596.0	90	578	578	600	0.00	20.90	79.10	0.00	0	602	1994	0
6	FLUE GAS	36146.6	335	9087	5716	13683	10.69	6.70	82.73	37.09	4156	1896	20628	9456

Figure A–2. Dryer mass balance at 400°F preheated combustion air/1000°F.[a]

[a]Stream number relates to drawing on page A–5 for Case No. 2

STREAM NO.	MEDIA TYPE	MASS LB/HR	TEMP F	FLOW WSCFM	FLOW DSCFM	FLOW ACFM	CO2 %V/V	O2 %V/V	N2 %V/V	H2O %V/V	CO2 LB/HR	O2 LB/HR	N2 LB/HR	H2O LB/HR
1	OIL	1179.5	90	-	-	-	-	-	-	-	-	-	-	-
2	AIR	21956.9	400	4879	4879	7947	0.00	20.90	79.10	0.00	0	5094	16863	0
3	DRY STONE	49500.0	1500	-	-	-	-	-	-	-	-	-	-	-
4	WET STONE	55000.0	60	-	-	-	-	-	-	-	-	-	-	5565
5	FLUE GAS	28636.4	350	7087	4654	10872	11.79	5.06	83.13	34.30	3764	1172	16874	6818
5A	AIR	5013.0	90	482	482	502	0.00	20.90	79.10	0.00	0	502	1731	0
6	FLUE GAS	34958.0	335	8022	5135	12079	10.69	6.50	82.77	35.99	3968	1674	18605	6945

Figure A–3. Dryer mass balance at 400°F preheated combustion air/1500°.[a]

[a]Stream number relates to drawing on page A–5 for Case No. 1.

ATTACHMENT B

DESCRIPTION OF CONTROL EQUIPMENT

A. Multicyclone

Joy-Western
35 tubes, 9" diameter (27 active)
3.5 in. H_2O pressure drop
13,680 acfm
335°F

B. Fabric Filter

Pulse-jet cleaning
Micropul
238 bags; 4.5 inches diameter; 12 ft long
3366 ft^2 cloth area
Fiberglass cloth
4.16 air-to-cloth ratio
14,000 acfm at 335°F (450°F max.)
6.0 in. H_2O expected pressure drop
0.02 gr/dscf outlet loading

C. Afterburner

Fuel: natural gas
Heat input: 15×10^6 Btu/h (max.)
30%: excess air
1600°F: combustion temperature
0.75 s: residence time
746 ft^3: primary chamber volume
98.8%: efficiency (minimum)
Manufacturer: IT/McGill, Tulsa, OK

D. Fugitive Fabric Filter

Pulse-jet cleaning
Micropul
130 bags; 4.5 inches diameter; 8 ft long
4.0 ft^2 cloth area
Nomex cloth
4.0 air-to-cloth ratio
5000 acfm at 400°F
4 in. H_2O expected pressure drop
0.02 gr/dscf outlet loading

ATTACHMENT C

AFTERBURNER SYSTEM DESCRIPTION

The afterburner used to destroy organics that are volatilized from the soil will be a direct natural gas-fired system. The dryer flue gases will be preheated to 750°F using a heat exchanger at the afterburner exhaust.

Combustion temperature in the afterburner is 1600°F at 30 percent excess air. Expected destruction efficiency is >98.8 percent on heavy hydrocarbons. The design system residence time is 0.75 seconds.

Combustion air for the dryer burner will be preheated using a second heat exchanger. A portion of the afterburner flue gases will be bypassed around the heat exchangers to maintain proper heat balance and prevent preignition of organics in the dryer exhaust.

The afterburner maximum heat input will be 15×10^6 Btu/h. This heat input would only occur during the startup period. A reduced heat input would be required during operation because of the heat release from the organics (VOC) in flue gas stream.

The system will be equipped with all flame safety and interlock controls as necessary to comply with the local codes. Combustion chamber temperature will be controlled by a feed back loop to maintain set points. A flow diagram for the system is provided in Figure C-1.

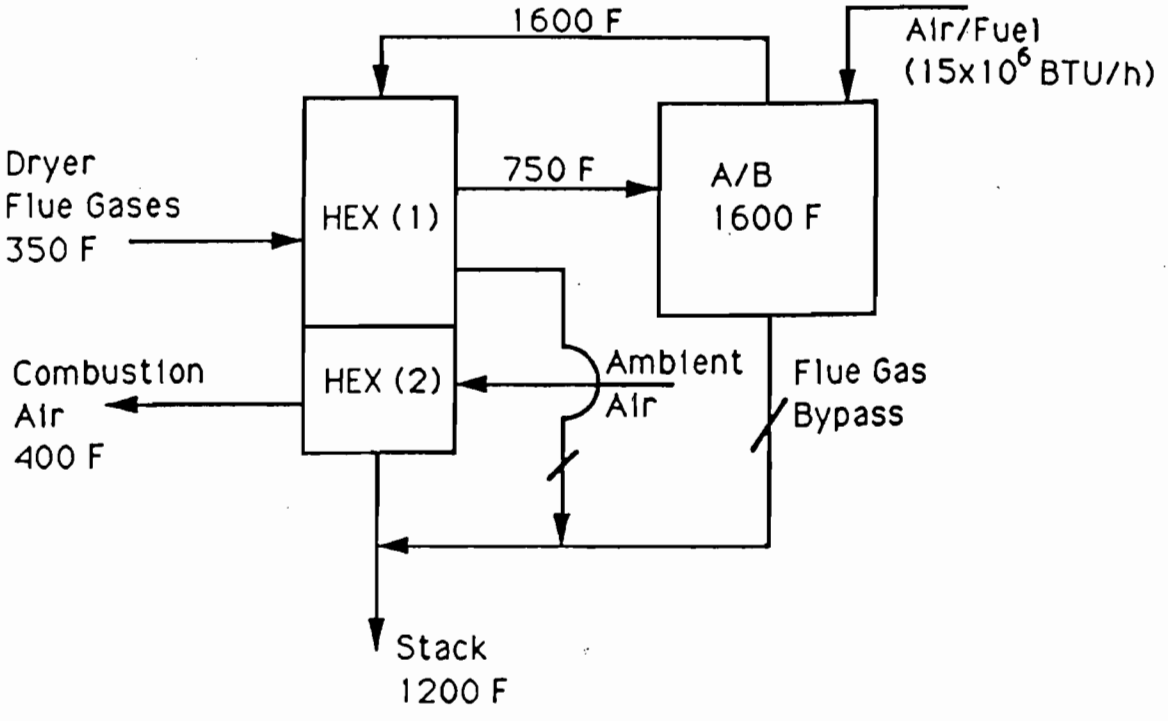


Figure C-1. Afterburner system arrangement.

ATTACHMENT D

EMISSION ESTIMATES

Pollutant emission estimates are based on expected maximum operating conditions and worst-case feed material. The highest soil contamination is assumed to be 850 ppm of residual oil. This condition is not constantly expected but represents a worst-case situation. Because of the sulfur content of residual oil this increases the potential SO_2 loss from the dryer (14.37 lb/h fuel combustion and 2.86 lb/h process loss from soil).

NO_x emissions are calculated based on NO_x generation from low excess air dryer burner and low excess air afterburner. An additional adjustment is made based on experience with the total system gas volume.

A. NO_x

° Assumptions

- 150 ppm NO_x on dryer burner based on 30 percent excess air in dry flue gases
- 150 ppm NO_x on afterburner combustion based on burner dry flue gases
- 15 ppm additional NO_x in total dry gas volume
- Worst-case without organics; full burner operation

° Dryer

$$\frac{(27.5 \times 10^6\ Btu/h)(8740\ scf/10^6\ Btu)(1.3)}{60\ \text{min}/h} = 5207 dscfm$$

$$\frac{(150 \times 10^{-6}\ scf\ NO_x\ /scf)(5207 scfm)(60 \text{min}/h)}{12.8\ scf\ NO_x/lb NO_x} = 3.67\ lb/h$$

° Afterburner

° Afterburner

$$\frac{(15 \times 10^6\ Btu/h)(8740\ scf/10^6\ Btu)(1.3)}{60\ min/h} = 2841\ dscfm$$

$$\frac{(150 \times 10^{-6}\ scf\ NO_x/scf)(2841\ dscfm)(60\ min/h)}{12.8\ scf\ NO_x/lb\ NO_x} = 1.99\ lb/h$$

Total gas

$$\frac{(15 \times 10^{-6}\ scf\ NO_x/scf)(60\ min/h)(9773\ scfm)}{12.8\ scf\ NO_x/lb\ NO_x} = 0.687\ lb/h$$

Total NO_x = 6.34 lb/h

B. CO

° Assumptions

- 50 ppm CO remaining in afterburner flue gases (dry basis)
- 30 percent excess air

$$\frac{(50 \times 10^{-6}\ scf\ CO/scf)(9773\ scfm)(60\ min/h)}{13.76\ scf\ CO/lb\ CO} = 2.1\ lb/h$$

C. SO_2

° Assumptions

- Distillate oil used in dryer with sulfur content of 0.50 percent
- Fuel oil heat content 142,000 Btu/gal
- Dryer heat input 27.5 x 10^6 Btu/h
- Natural gas used on afterburner
- Maximum 850 ppm residual oil in soil at 2.1 percent S

$$\frac{27.5 \times 10^6\ Btu/h}{142{,}000\ Btu/gal} = 193.7\ gal/h$$

$$\left[193.7\ \frac{gal}{h}\right]\left[7.4\ \frac{lb}{gal}\right] = 1433\ lb/h$$

$$100 \qquad (1433\ lb/h) = 14.32$$

° Afterburner

$$(15 \times 10^6\ \frac{Btu}{h}) \rightarrow neg.\ sulfur$$

° Fuel in Soil

$$(2)(40\ ton/h)(2000\ lb/ton)(850 \times 10^{-6})(2.1/100\ \%S) = 2.68\ lb/h$$

Total SO_2 = 17.18 lb/h

D. VOC

° Potential (40 tons/h)(2000 lb/ton)(6000 x 10^{-6}) = 480 lb/h

° Controlled (1 - 0.988)(480 lb/h) = 5.48 lb/h

E. PM

° Assumptions

- 0.02 gr/acf at baghouse exit

$$\frac{(5716\ dscfm)(0.02\ gr/dscf)(60\ min/h)}{7000\ gr/lb} = 0.97\ lb/h$$

Afterburner firing rate

$$\frac{15 \times 10^6 \ Btu/h}{1100 \ Btu/cf \ (10^6)} = 0.0136 \ mm \ cf/h$$

$$(0.0136 \ mm \ \frac{cf}{h})(1.0 \ \frac{lb}{mm \ cf} = 0.0136 \ lb/h \ (neg)$$

Total PM < 1.0 lb/h

EXPECTED ANNUAL POTENTIAL EMISSIONS

	lb/h	lb/yr	tons/yr
PM	1200	10,512,000	5256
SO_2	17.18	150,497	75.25
CO	2.1	18,396	9.19
VOC	480	4,204,800	2102.4
NO_x	6.34	55,538	27.77

ANNUAL ACTUAL CONTROLLED EMISSIONS

	lb/h	lb/yr	tons/yr
PM	1.0	8,760	4.38
SO_2	17.18	150,497	75.25
CO	2.1	18,396	9.19
VOC	5.48	48,000	24.0
NO_x	6.34	55,538	27.77

ATTACHMENT E

FUGITIVE DUST CONTROL

A material stacker will be used to place treated soil in the raw-material gallery. The stacker and elevator will be vented to a baghouse to control fugitive dust. Ambient air will be mixed with vent gases to maintain baghouse temperature below 400°F (Figure E-1).

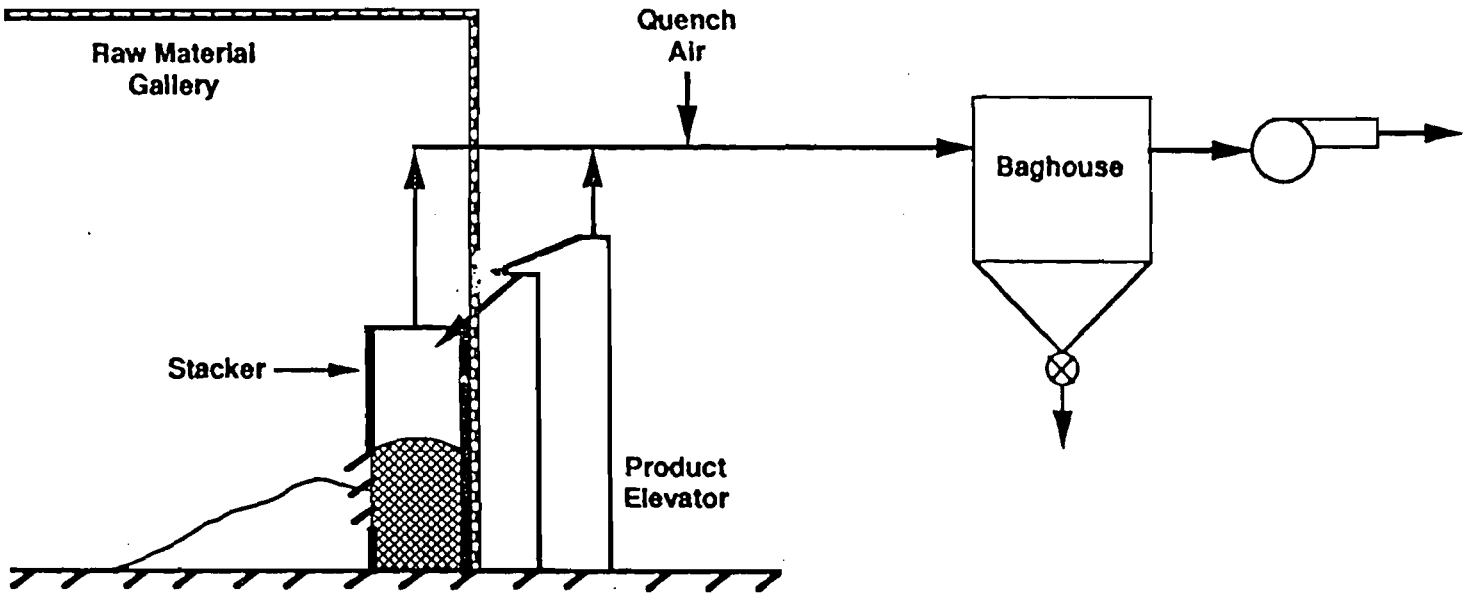


Figure E-1. Stacker fugitive dust control system.

ATTACHMENT F

HISTORIC EMISSION ESTIMATES

A. NO_x

° Assumptions

- Emission rate 0.133 lb/10^6 Btu
- Existing burner without NO_x control or excess air control

Heat input = (25 ton/h)(4.5 gal/ton)(142,000 Btu/gal) = 15.97 x 10^6 Btu/h

NO_x = (0.133 lb/10^6 Btu)(15.97 x 10^6 Btu/h) = 2.12 lb/h

NO_x = (2.12 lb/h)(8960 h/yr) (1 ton/2000 lb) = 9.29 tons/yr

B. CO

° Assumptions

- Dryer excess air at stack 134%
- Stack flow rate approximately 5750 dscfm
- Stack CO concentration approximately 400 ppm (v/v) dry

$$CO = \frac{(400 \times 10^{-6} \text{ scf CO/scf})(5750 \text{ scfm})(60 \text{ min/h})}{(13.76 \text{ scf CO/lb CO})} = 10.03 \text{ lb/h}$$

CO = (10.03 lb/h)(8760 h/yr)(1 ton/2000 lb) = 43.93 tons/yr

C. SO_2

° Assumptions

- Distillate oil used in dryer with sulfur content of 0.50 percent
- Fuel oil heat content 142,000 Btu/gal
- Dryer production rate 25 tons/h
- Fuel efficiency 4.5 gal/ton stone
- 8760 h/yr operation

Production = (8760 h/yr)(25 tons/h) = 219,000 tons/yr

Fuel usage = (219,000 tons/yr) (4.5 gal/ton) = 985,500 gal/yr

SO_2 = (1 ton/2000 lb)(985,000 gal/yr)(2)(0.5 %S/100)(7.4 lb/gal) = 36.46 tons/yr

D. VOC

Contaminated soils have not historically been processed in the drier.

E. PM

° Assumptions

- Emissions have been consistent with permit allowables (i.e., 26.41 lb/h)
- Production rate 25 tons/h

PM = (26.41 lb/h)(8760 h/yr)(1 ton/2000 lb) = 115.67 tons/yr

HISTORIC ANNUAL POTENTIAL EMISSIONS

	lb/h	lb/yr	tons/yr
PM	750	6,570,000	3285
SO_2	8.32	72,883	36.44
CO	10.03	87,863	43.93
VOC	0	0	0
NO_x	2.12	18,571	9.28

HISTORIC CONTROLLED EMISSIONS

	lb/h	lb/yr	tons/yr
PM	26.41	231,352	115.67
SO_2	8.32	72,883	36.44
CO	10.03	87,863	43.93
VOC	0	0	0
NO_x	2.12	18,571	9.28

ATTACHMENT G

NET CHANGE IN EMISSIONS

	Actual historic		Actual proposed		Change	
	lb/h	tons/yr	lb/h	tons/yr	lb/h	tons/yr
PM	26.41	115.67	1.0	4.38	-25.41	-111.29
SO_2	8.32	36.44	17.18	75.25	8.86	38.80
CO	10.03	43.93	2.1	9.19	-7.93	-34.73
VOC	0	0	5.48	24.0	5.48	24.00
NO_x	2.12	9.28	6.34	27.77	4.22	18.48

ATTACHMENT H

CALCULATION OF AFTERBURNER RESIDENCE TIME

° Assumptions

- Chamber volume 746 ft^3
- Afterburner gas volume 15,300 wscfm
- Afterburner average temperature 1600°F

$$1/t = (1 \text{ min}/60 \text{ s})(15{,}300 \text{ ft}^3/\text{min})(1/746 \text{ ft}^3)(1600°F + 460/68°F + 460) = 1.33/s$$

$t = 0.75$ seconds

File Copy

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

November 1, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James S. Jenkins III
Rinker Materials Corporation
Post Office Box 650679
Miami, Florida 33265-0679

Dear Mr. Jenkins:

Re: File No. AC 13-187599, Rock Dryer Modification

The Department has made a preliminary review of your application for permit to modify the existing rock dryer at your plant located in Miami, Dade County, Florida. Before this application can be processed, we need the following information:

1. Please furnish a copy of the latest permit to construct and permit to operate the rock dryer.

2. What is the contemporaneous emission change of all criteria pollutants associated with this project? Please supply calculations for this change that show actual and permitted emissions being requested for these pollutants.

3. What is the name and address of the professional engineer that sealed this application?

4. Will this unit continue to be used to dry rock?

5. What is the criteria pollutant emission rates (max. lbs/hr and TPY) you are requesting the dryer be permitted for?

6. What is the basis for the maximum concentration of VOC in the contaminated soil being 6000 ppm and the maximum sulfur content being 2.1%?

7. Will both proposed baghouses meet a particulate matter emission standard of 0.02 grains/dscf and 5% opacity?

8. Will this dryer burn "off-spec" waste oil as fuel or treat soil contaminated with "off-spec" oil?

9. Please confirm that the No. 2 fuel oil used in this dryer will contain a maximum of 0.25% sulfur.

10. Please provide a map showing the location of the facility.

11. What is the maximum heat input to the dryer and the maximum heat input to the afterburner?

12. Please clarify the basis for the four sets of calculations in Tables 1, 2, and 3.

13. Please provide a copy of the calculations for the residence time in the afterburner.

14. How will fugitive emissions from the raw material galley be controlled?

We will resume processing the application after we received the requested information. If you have any questions on this matter, please write to me or call Willard Hanks at (904)488-1344.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/WH/t

cc: I. Goldman, SE District
P. Wong, DERM
B. Voshell, Rinker
Willard Hanks
Reading File } 11-1-90

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
James S. Jenkins III
Rinker Materials Corporation
P.O. Box 650679
Miami, FL 33265-0679

4. Article Number
P 256 396 226

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X [signature] NOV 6 1990

6. Signature – Agent
X

7. Date of Delivery

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

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

P 256 396 226

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to
James S. Jenkins III
Rinker Materials Corp.
Street and No.
P.O. Box 650679
P.O. State and ZIP Code
Miami, FL 33265-0679

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date mailed: 11/1/90 AC 13-187599	

PS Form 3800, June 1985 ★U.S.G.P.O. 1989-234-555

RINKER MATERIALS CORP.
CEMENT - AGGREGATE - MATERIALS - REAL ESTATE
FIRST WITH THE BEST
P. O. BOX 24635 WEST PALM BEACH, FL 33416-4635 TELEPHONE (407) 833-5555

September 28, 1990

Mr. Willard Hanks, Permitting Engineer
Florida Department of Environmental Regulation
Bureau of Air Regulations
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Re: Permit to Constuct

Dear Mr. Hanks:

Find enclosed a Rinker Materials Corporation Application (and fee) to Construct for the installation and operation of a baghouse and custom design afterburner. The installation is an addition to the pollution control system on the existing rock dryer so that Rinker can comply with the Department's August 1, 1990 policy memorandum to control VOC emissions from soil thermal treatment facilities.

As per your discussion with Bill Voshell, Rinker request a meeting to discuss the Department's preliminary review of the application and permitting requirements. Bill Voshell, Ron Hawks of PEI and I am available preferably on October 18, 1990. October 17, 1990 could serve as an alternate date. Please confirm an acceptable date.

Should there be any questions in the interim, call me at 305/221-7645.

Sincerely,

Michael Vardeman WEV

Michael D. Vardeman
Manager Materials Substitution

Enclosures
MDV:lg
cc: S. Brooks, SE Dist
D. Hong, DERM

RECEIVED
DER - MAIL ROOM
1990 OCT -5 AM 9:07

001031

RINKER MATERIALS CORP.

P.O. BOX 24635
WEST PALM BEACH, FLORIDA
33416-4635

TO:

Mr. Willard Hanks, Permitting Eng.
Fla. Dept. Environmental Regulation
Bureau of Air Regulations
2600 Blair Stone Road
Twin Towers Office Bldg.
Tallahassee, Florida 32301

Rinker Materials

P.O. BOX 24635
WEST PALM BEACH, FL 33416-4635
PHONE (407) 833-5555

No. 024382 63-568/631

NO. 024382

BARNETT BANK
CALHOUN AT JEFFERSON ST.
TALLAHASSEE, FL 32301

DATE OCTOBER 02, 1990

$1,000 DOLLARS 00 CENTS

Amount of Check
$1,000.00*

RINKER MATERIALS CORPORATION

Daniel Kelly

PAY TO THE ORDER OF
FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
2600 BLAIRSTONE ROAD
TALLAHASSEE FL 32399

516
3/90

[redacted]

2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Re: Permit to Constuct

Dear Mr. Hanks:

Find enclosed a Rinker Materials Corporation Application (and fee) to Construct for the installation and operation of a baghouse and custom design afterburner. The installation is an addition to the pollution control system on the existing rock dryer so that Rinker can comply with the Department's August 1, 1990 policy memorandum to control VOC emissions from soil thermal treatment facilities.

As per your discussion with Bill Voshell, Rinker request a meeting to discuss the Department's preliminary review of the application and permitting requirements. Bill Voshell, Ron Hawks of PEI and I am available preferably on October 18, 1990. October 17, 1990 could serve as an alternate date. Please confirm an acceptable date.

Should there be any questions in the interim, call me at 305/221-7645.

Sincerely,

Michael Vardeman wev

Michael D. Vardeman
Manager Materials Substitution

Enclosures
MDV:lg

001031

RECEIVED
DER - MAIL ROOM
1990 OCT -5 AM 9:07

$1,000 pd
10-5-90
Receipt #151143

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406 • 407-964-9668

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Scott Benson, Deputy Assistant Secretary

AC 13-187599

SOURCE TYPE: Afterburner [ ] New[1] [x] Existing[1]

APPLICATION TYPE: [x] Construction [ ] Operation [x] Modification

COMPANY NAME: Rinker Materials Corporation **COUNTY:** Dade

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired): stone dryer

SOURCE LOCATION: **Street** 1200 Northwest 137th Avenue **City** Miami

UTM: **East** Zone 17;558.2 km **North** 2851.3 km

Latitude 25 ° 46 ' 48 "N **Longitude** 80 ° 25 ' 10 "W

APPLICANT NAME AND TITLE: James S. Jenkins III, Vice President Cement Operations

APPLICANT ADDRESS: P. O. Box 650679, Miami, Florida 33265-0679

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Rinker Materials Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Furthe I agree to maintain and operate the pollution control source and pollution contr facilitie in such a manner as to comply with the provision of Chapter 403, Flori Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferab and I will promptly notify the department upon sale or legal transfer of the permitt establishment.

*Attach letter of authorization

Signed: James S. Jenkins, III

James S. Jenkins III, VP Cement Operations
Name and Title (Please Type)

Date: 9/16/90 Telephone No. 305-221-7645

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project ha been designed/examined by me and found to be in conformity with modern engineeri principles applicable to the treatment and disposal of pollutants characterized in t permit application. There is reasonable assurance, in my professional judgment, th

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed _____

_____
Name (Please Type)

_____
Company Name (Please Type)

_____
Mailing Address (Please Type)

Florida Registration No. 32530 Date: SEPT 28, 90 Telephone No. (407) 833-5555

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Modify existing stone dryer to process petroleum contaminated soil pursuant to Florida DER Policy Memorandum dated August 1, 1990. Project will include a baghouse and afterburner to fully comply with all rules and regulations.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction 2/1/91 Completion of Construction 10/30/91

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Baghouse $80,000

Afterburner $500,000

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AO 13-127621, DER permit dated May 23, 1990.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? Yes

   c. If yes, list non-attainment pollutants. VOC

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? Yes

   a. If yes, for what pollutants? VOC

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

Controlled VOC emissions less than 25 tons/yr.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Soil	Limestone, sand	100	72,000	Attachment A 4
	Petroleum	6000 ppm	480	Attachment A
	Water	10	8,000	Attachment A

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 40 tons/h (10% moisture)

2. Product Weight (lbs/hr): 36 tons/h (0% moisture)

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
PM	<1.0	4.38	Process weight eq.	31.0		5256	7
VOC	2.5	10.5	95% control	24.0		2102	7
CO	2.1	9.2		NA		9.2	7
NO_x	6.3	27.8		NA		27.8	7
SO_2	27.16	118.96				118.96	7

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3] Calculated from operating rate and applicable standard.

[4] Emission, if source operated without control (See Section V, Item 3).

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

fugitive dust baghouse

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
PM	0.5	2.3	Process wt eq.	31			

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Multicyclone	PM	85	>10 μm	Engr. calculation
Baghouse	PM	99.9	>1.0μm	Engr. calculation
Afterburner	VOC	99.5	NA	Design

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Waste oil	193 gal/min	193 gal/min	27.4
Dist. oil	193 gal/min	193 gal/min	27.4
Natural gas	2.5×10^4 ft^3	2.5×10^4 ft^3	27.4

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: 0.25% Distillate
0.12% Waste oil Percent Ash: unknown

Density: 7.4 lbs/gal Typical Percent Nitrogen: unknown

Heat Capacity: _____ BTU/lb 142,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average 0 Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Processed soil to be returned to site as clean fill per Florida DER 17-775 F.A.C. or used as substitute cement raw materials.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 80 ft. Stack Diameter: 4.5 ft.

Gas Flow Rate: 36,500 ACFM 9770 DSCFM Gas Exit Temperature: 800 °F.

Water Vapor Content: 28 % Velocity: 50 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated						480	
Uncontrolled (lbs/hr)						480	

Description of Waste Petroleum products in dryer flue gases

Total Weight Incinerated (lbs/hr) 480 Design Capacity (lbs/hr) 480

Approximate Number of Hours of Operation per day 24 day/wk 7 wks/yr. 52

Manufacturer IT/McGill

Date Constructed 10/1/91 Model No. custom design

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber	565	15×10^6	N.G.	15×10^6	1600
Secondary Chamber					

Stack Height: 80 ft. Stack Diameter: 4.5 Stack Temp. 800

Gas Flow Rate: 36,500 ACFM 9770 DSCFM* Velocity: 50 FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [x] Afterburner

[ ] Other (specify)

D. Control Devices: (See Section V, Item 4) fugitive dust baghouse

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
micropul BH	PM	99.9	>1.0 µm	design

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Waste oil components.

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

fugitive dust baghouse

4. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 45 ft. Stack Diameter: 1.0 x 1.0 ft.

Gas Flow Rate: 5000 ACFM 3070 DSCFM Gas Exit Temperature: 400 °F.

Water Vapor Content: 0 % Velocity: 60 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: Afterburner system will consist of heat exchanger to preheat flue gases; afterburner; heat exchanger to preheat dryer combustion air and stack

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A

DRYER DESCRIPTION

The existing stone dryer is a 7 by 80 foot rotary dryer that was installed as part of the original plant equipment. Because of the higher temperatures required to remove petroleum products from soil, the burner and drum are to be modified to achieve a product temperature of 1500°F. The existing Todd Shipyard burner will be replaced with a Gencor ultraflame burner to provide a design heat input of 27.5×10^6 Btu/h. This burner is a low excess air design (30%) and provides maximum turn down and control stability.

To insure complete soil desorption and uniform temperature, the drum will be flighted and soil preheated in the drum as it moves countercurrent to the flame. Maximum production will be 40 tons/h with production adjusted to rates necessary to produce the required soil discharge temperatures. The soil temperature required will be determined by type of petroleum product and concentration.

The operation will reduce petroleum levels in the soil to clean fill standards (i.e., <5 ppm), which can allow the soil to be returned to the clean up site or used in the cement plant raw feed.

All particulate matter collected by the multicyclone and baghouse will be returned to the feed to ensure complete contaminate removal. The dust system will use screw conveyors and elevator.

Tables 1, 2, and 3 are heat and mass balances for the dryer at 27.5 tons/h feed rate (heavy organics) and 40 tons/h (light organics). Figure A-1 is a flow diagram for the system. Figures A-2 and A-3 are dryer mass balance outputs at 1000°F and 1500°F, respectively.

Feed System Description

Soil will be received and the required tests performed to ensure compliance with off-specification used oil limitations (i.e., arsenic, lead, halogens, etc.). The soil will be placed in the raw material gallery in separate bins for discharge to the roaster. Before placement in the roaster, the soil will be screened to remove large rocks, debris, trash, roots, etc. Oversize stone will be crushed and rescreened to insure uniform feed size to the roaster. Soil will be transferred to the roaster feed bin using an inclined belt feeder. Treated soil will be discharged from the roaster and transferred to the raw material gallery using a bucket elevator and drop leg (stacker).

TABLE 1. DRYER OPERATING CONDITIONS

	1	2	3	4
Feed rate, tons/h	27.5	40.0	27.5	40.0
Moisture, %	10	10	10	10
Product rate, tons/h	24.75	36.0	24.75	36.0
Drum speed, RPM	7.0	8.5	7.0	8.5
Flue gas weight, lb/h	28,636	33,551	30,447	35,562
CO_2, % volume	11.79	11.79	11.79	11.79
O_2, % volume	5.06	5.06	5.06	5.06
N_2, % volume	83.1	83.1	83.1	83.1
H_2O, % volume	34.3	39.6	32.98	
Temperature, °F	350	350	350	350
Volume, acfm	10,872	13,060	11,487	16,875
Combustion air weight, lb/h	21,957	24,248	23,675	26,157
Temperature, °F	400	400	90	90
Fuel type	oil	oil	oil	oil
Fuel weight, lb/h	1,179.5	1,302.0	1,271.8	1,405.2
Heat input, 10^6 Btu	23.0	25.4	24.8	27.4
Efficiency, 10^6 Btu/ ton (wet)	0.836	0.635	0.902	0.685
Efficiency, 10^6 Btu/ ton (wet)	0.929	0.705	1.00	0.761
Product temperature, °F	1,500	1000	1500	1000
Burner excess air, %	30	30	30	30

TABLE 2. DRYER MASS BALANCE

	1	2	3	4
Mass input				
Fuel, lb/h	1,179.5	1,302.6	1,271.8	1,405.1
Stone, lb/h	55,000.0	80,000	55,000.0	80,000.0
Combustion air, lb/h	21,956.9	24,248.1	23,675.3	26,157.4
Total, lb/h	78,136.4	105,550.7	79,947.9	107,562.5
Mass output				
Dry flue gases, lb/h	21,818.1	24,094.8	23,525.9	25,992.3
Wet gases, lb/h	6,818.3	9,455.8	6,921.2	9,570.2
Dry stone, lb/h	49,500.0	72,000.0	49,500.0	72,000.0
Total, lb/h	78,136.4	105,550.7	79,947.9	107,567.5

TABLE 3. DRYER HEAT BALANCE

	1		2		3		4	
	10^6 Btu/lb	%	10^6 Btu/lb	%	10^6 Btu/lb	%	10^6 Btu/lb	%
Heat input								
Fuel	23.00	90.62	27.40	96.52	24.80	97.06	25.40	90.19
Stone	0.273	1.07	0.397	1.40	0.273	1.07	0.397	1.42
Moisture liquid	0.154	0.606	0.224	0.79	0.154	0.60	0.224	0.79
Combustion air	1.955	7.70	0.364	1.29	0.329	1.29	2.141	7.60
Total	25.38	100.00	28.385	100.00	25.55	100.00	28.163	100.00
Heat output								
Dry stone	14.32	56.60	13.73	48.46	14.32	56.07	13.73	48.91
Dry flue gases	1.495	5.91	1.782	6.28	1.613	6.32	1.65	5.88
Moisture	8.288	32.75	11.63	41.03	8.41	32.93	11.49	40.93
Radiation	1.200	4.74	1.20	4.23	1.20	4.69	1.20	4.28
Total	25.30	100.00	28.34	100.00	25.54	100.00	28.07	100.00

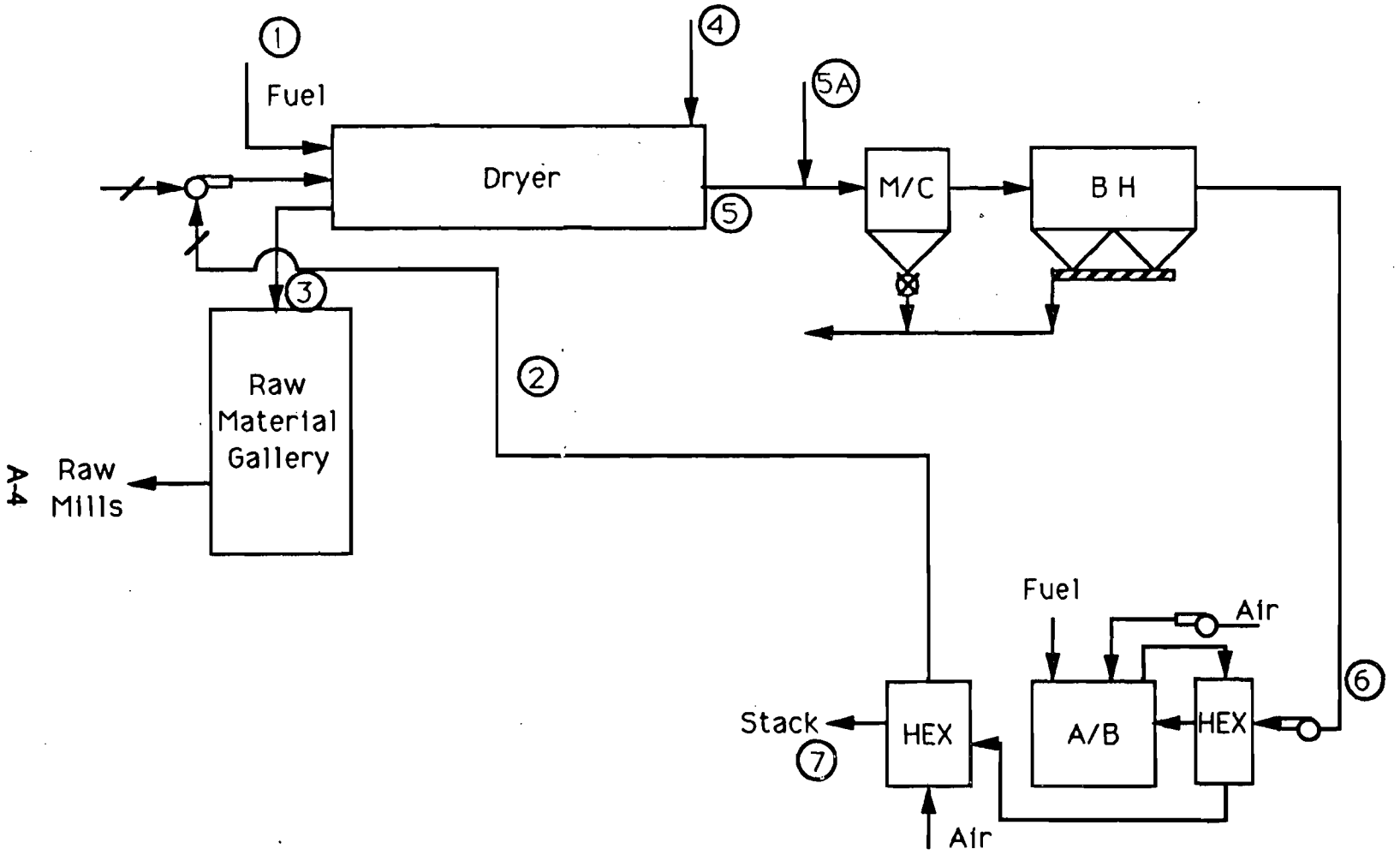


Figure A-1. Dryer flow diagram/mass balance.

STREAM NO.	MEDIA TYPE	MASS LB/HR	TEMP F	FLOW WSCFM	FLOW DSCFM	FLOW ACFM	CO2 %V/V	O2 %V/V	N2 %V/V	H2O %V/V	CO2 LB/HR	O2 LB/HR	N2 LB/HR	H2O LB/HR
1	OIL	1302.0	90	-	-	-	-	-	-	-	-	-	-	-
2	AIR	24248.0	400	5388	5388	8777	0.00	20.90	79.10	0.00	0	5626	18622	0
3	DRY STONE	72000.0	1000	-	-	-	-	-	-	-	-	-	-	-
4	WET STONE	80000.0	60	-	-	-	-	-	-	-	-	-	-	5565
5	FLUE GAS	33550.6	350	8513	5139	13060	11.79	5.06	83.13	39.60	4156	1296	18634	9456
5A	AIR	2596.0	90	578	578	600	0.00	20.90	79.10	0.00	0	602	1996	0
6	FLUE GAS	36146.6	335	9087	5716	13683	10.69	6.70	82.73	37.09	4156	1896	20628	9456

Figure A-2. Dryer mass balance at 400°F preheated combustion air/1000°F.

STREAM NO.	MEDIA TYPE	MASS LB/HR	TEMP F	FLOW WSCFM	FLOW DSCFM	FLOW ACFM	CO2 %V/V	O2 %V/V	N2 %V/V	H2O %V/V	CO2 LB/HR	O2 LB/HR	N2 LB/HR	H2O LB/HR
1	OIL	1179.5	90	-	-	-	-	-	-	-	-	-	-	-
2	AIR	21956.9	400	4879	4879	7947	0.00	20.90	79.10	0.00	0	5094	16863	0
3	DRY STONE	49500.0	1500	-	-	-	-	-	-	-	-	-	-	-
4	WET STONE	55000.0	60	-	-	-	-	-	-	-	-	-	-	5565
5	FLUE GAS	28636.4	350	7087	4654	10872	11.79	5.06	83.13	34.30	3764	1172	16874	6818
5A	AIR	5013.0	90	482	482	502	0.00	20.90	79.10	0.00	0	502	1731	0
6	FLUE GAS	34958.0	335	8022	5135	12079	10.69	6.50	82.77	35.99	3968	1674	18605	6945

Figure A-3. Dryer mass balance at 400°F preheated combustion air/1500°F.

ATTACHMENT B

DESCRIPTION OF CONTROL EQUIPMENT

A. Multicyclone

Joy-Western
35 tubes, 9" diameter (27 active)
3.5 in. H_2O pressure drop
13,680 acfm
335°F

B. Fabric Filter

Pulse-jet cleaning
Micropul
238 bags; 4.5 inches diameter; 12 ft long
3366 ft^2 cloth area
Fiberglass cloth
4.16 air-to-cloth ratio
14,000 acfm at 335°F (450°F max.)
6.0 in. H_2O expected pressure drop
0.02 gr/dscf outlet loading

C. Afterburner

Fuel: natural gas
Heat input: 15×10^6 Btu/h (max.)
30%: excess air
1600°F: combustion temperature
0.75 s: residence time
563 ft^3: primary chamber volume
99.5%: efficiency
Manufacturer: IT/McGill, Tulsa, OK

D. Fugitive Fabric Filter

Pulse-jet cleaning
Micropul
130 bags; 4.5 inches diameter; 8 ft long
4.0 ft^2 cloth area
Nomex cloth
4.0 air-to-cloth ratio
5000 acfm at 400°F
4 in. H_2O expected pressure drop
0.02 gr/dscf outlet loading

ATTACHMENT C

AFTERBURNER SYSTEM DESCRIPTION

The afterburner used to destroy organics that are volatilized from the soil will be a direct natural gas-fired system. The dryer flue gases will be preheated to 750°F using a heat exchanger at the afterburner exhaust.

Combustion temperature in the afterburner is 1600°F at 30 percent excess air. Expected destruction efficiency is 99.5 percent on heavy hydrocarbons. The design system residence time is 0.75 seconds.

Combustion air for the dryer burner will be preheated using a second heat exchanger. A portion of the afterburner flue gases will be bypassed around the heat exchangers to maintain proper heat balance and prevent preignition of organics in the dryer exhaust.

The afterburner maximum heat input will be 15×10^6 Btu/h. This heat input would only occur during the startup period. A reduced heat input would be required during operation because of the heat release from the organics (VOC) in flue gas stream.

The system will be equipped with all flame safety and interlock controls as necessary to comply with the local codes. Combustion chamber temperature will be controlled by a feed back loop to maintain set points. A flow diagram for the system is provided in Figure C-1.

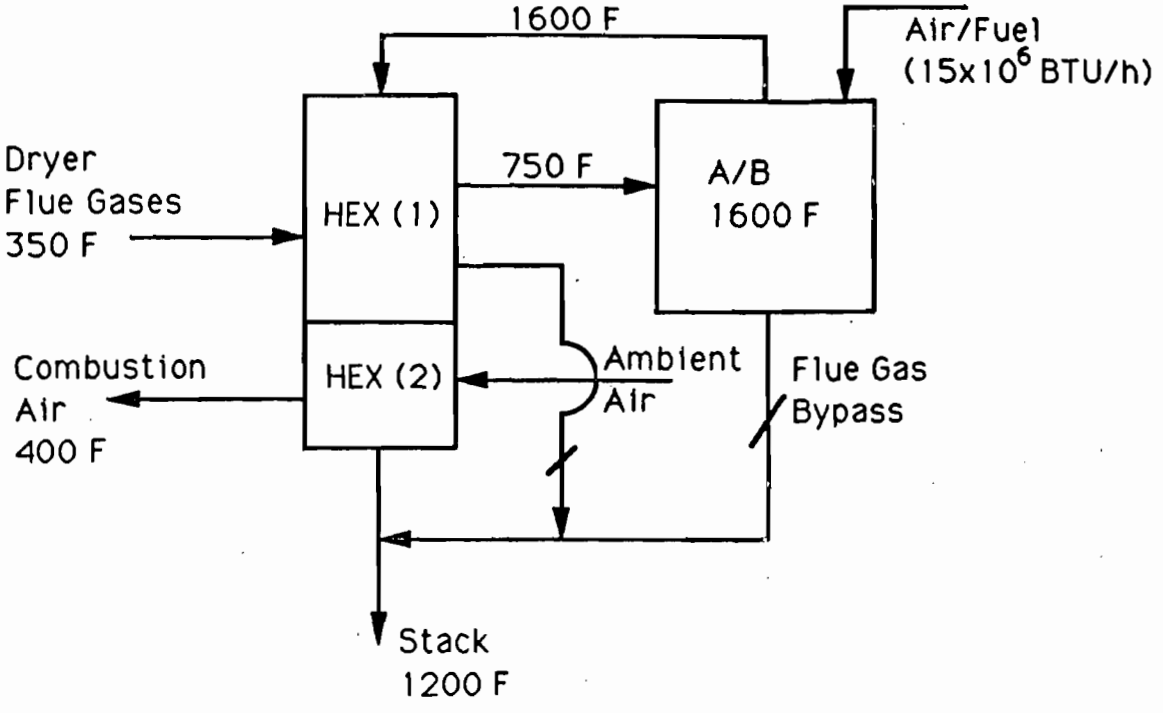


Figure C-1. Afterburner system arrangement.

ATTACHMENT D

EMISSION ESTIMATES

Pollutant emission estimates are based on expected maximum operating conditions and worst-case feed material. The highest soil contamination is assumed to be 6000 ppm of residual oil. This condition is not constantly expected but represents a worst-case situation. Because of the sulfur content of residual oil this greatly increases the potential SO_2 loss from the dryer (3.58 lb/h fuel combustion and 10 lb/h process loss from soil).

NO_x emissions are calculated based on NO_x generation from low excess air dryer burner and low excess air afterburner. An additional adjustment is made based on experience with the total system gas volume.

A. NO_x

° Assumptions

- 150 ppm NO_x on dryer burner based on 30 percent excess air in dry flue gases
- 150 ppm NO_x on afterburner combustion based on burner dry flue gases
- 15 ppm additional NO_x in total dry gas volume
- Worst-case without organics; full burner operation

° Dryer

$$\frac{(27.5x10^6\ Btu/h)(8740\ scf/10^6\ Btu)(1.3)}{60\ min/h} = 5207 dscfm$$

$$\frac{(150\ x\ 10^{-6}\ scf\ NO_x\ /scf)(5207 scfm)(60 min/h)}{12.8\ scf\ NO_x/lbNO_x} = 3.67\ lb/h$$

- Afterburner

$$\frac{(15 \times 10^6\ Btu/h)(8740\ scf/10^6\ Btu)(1.3)}{60\ min/h} = 2841\ dscfm$$

$$\frac{(150 \times 10^{-6}\ scf\ NO_x/scf)(2841\ dscfm)(60\ min/h)}{12.8\ scf\ NO_x/lb\ NO_x} = 1.99\ lb/h$$

Total gas

$$\frac{(15 \times 10^{-6}\ scf\ NO_x/scf)(60\ min/h)(9773\ scfm)}{12.8\ scf\ NO_x/lb\ NO_x} = 0.687\ lb/h$$

Total NO_x = 6.34 lb/h

B. CO

- Assumptions

  - 50 ppm CO remaining in afterburner flue gases (dry basis)
  - 30 percent excess air

$$\frac{(50 \times 10^{-6}\ scf\ CO/scf)(9773\ scfm)(60\ min/h)}{13.76\ scf\ CO/lb\ CO} = 2.1\ lb/h$$

C. SO_2

- Assumptions

  - Distillate oil used in dryer with sulfur content of 0.25 percent
  - Fuel oil heat content 142,000 Btu/gal
  - Dryer heat input 27.5 x 10^6 Btu/h
  - Natural gas used on afterburner
  - Maximum 6000 ppm residual oil in soil at 2.1 percent S

- Dryer Burner

$$\frac{27.5 \times 10^6\ Btu/h}{142{,}000\ Btu/gal} = 193.7\ gal/h$$

$$\left[193.7\ \frac{gal}{h}\right]\left[7.4\ \frac{lb}{gal}\right] = 1433\ lb/h$$

$$\frac{(2)(0.25\ \%S)}{100}(1433\ lb/h) = 7.16\ lb/h$$

- Afterburner

$$(15 \times 10^6\ \frac{Btu}{h}) \rightarrow neg.\ sulfur$$

- Fuel in Soil

$$(2)(40\ ton/h)(2000\ lb/ton)(6000 \times 10^{-6})(\frac{2.1}{100}\%S) = 20\ lb/h$$

Total SO_2 = 27.16 lb/h

D. VOC

- Potential (40 tons/h)(2000 lb/ton)(6000 x 10^{-6}) = 480 lb/h
- Controlled (1 - 0.995)(480 lb/h) = 2.4 lb/h

E. PM

- Assumptions

  - 0.02 gr/acf at baghouse exit

$$\frac{(5716\ dscfm)(0.02\ gr/dscf)(60\ \text{min}/h)}{7000\ gr/lb} = 0.97\ lb/h$$

- Afterburner firing rate

$$\frac{15 \times 10^6\ Btu/h}{1100\ Btu/cf\ (10^6)} = 0.0136\ mm\ cf/h$$

$$(0.0136\ mm\ \frac{cf}{h})(1.0\ \frac{lb}{mm\ cf} = 0.0136\ lb/h\ (neg)$$

Total PM < 1.0 lb/h

ANNUAL POTENTIAL EMISSIONS

	lb/h	lb/yr	tons/yr
PM	1200	10,512,000	5256
SO_2	27.16	237,922	118.96
CO	2.1	18,396	9.19
VOC	480	4,204,800	2102.4
NO_x	6.34	55,538	27.77

ANNUAL ACTUAL CONTROLLED EMISSIONS

	lb/h	lb/yr	tons/yr
PM	1.0	8,760	4.38
SO_2	27.16	237,922	118.96
CO	2.1	18,396	9.19
VOC	2.4	21,024	10.51
NO_x	6.34	55,538	27.77

ATTACHMENT E

FUGITIVE DUST CONTROL

A material stacker will be used to place treated soil in the raw-material gallery. The stacker and elevator will be vented to a baghouse to control fugitive dust. Ambient air will be mixed with vent gases to maintain baghouse temperature below 400°F (Figure E-1).

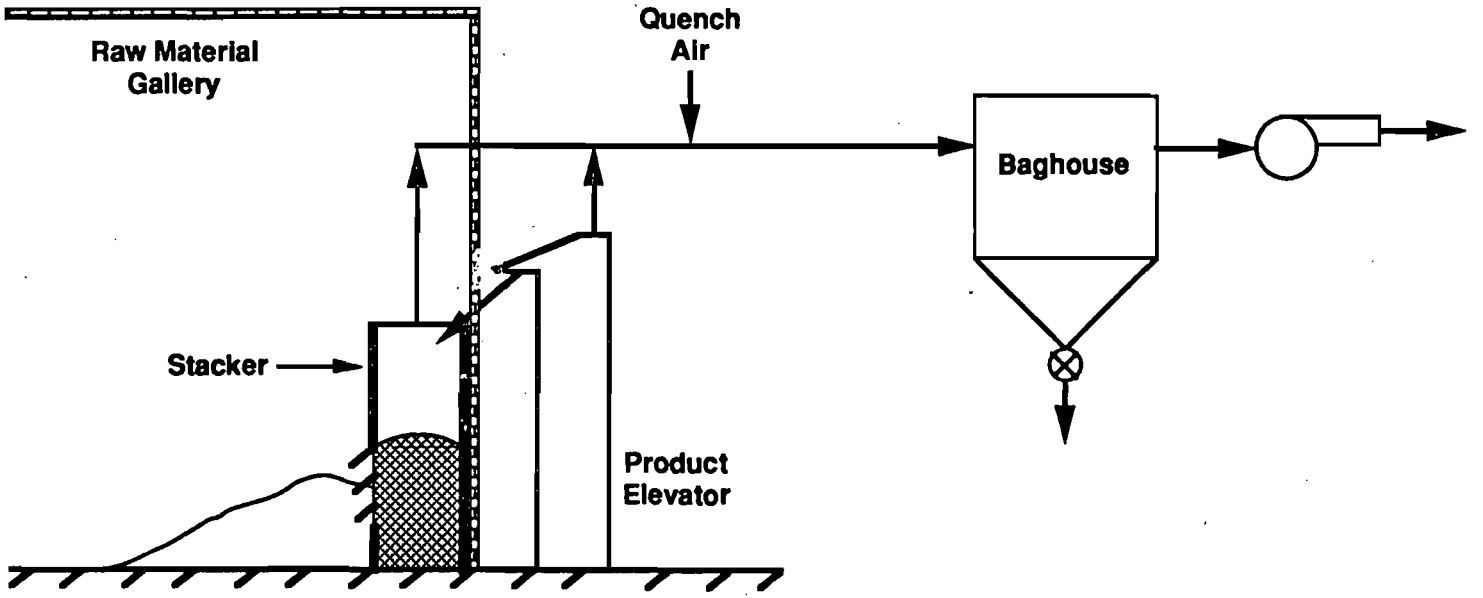
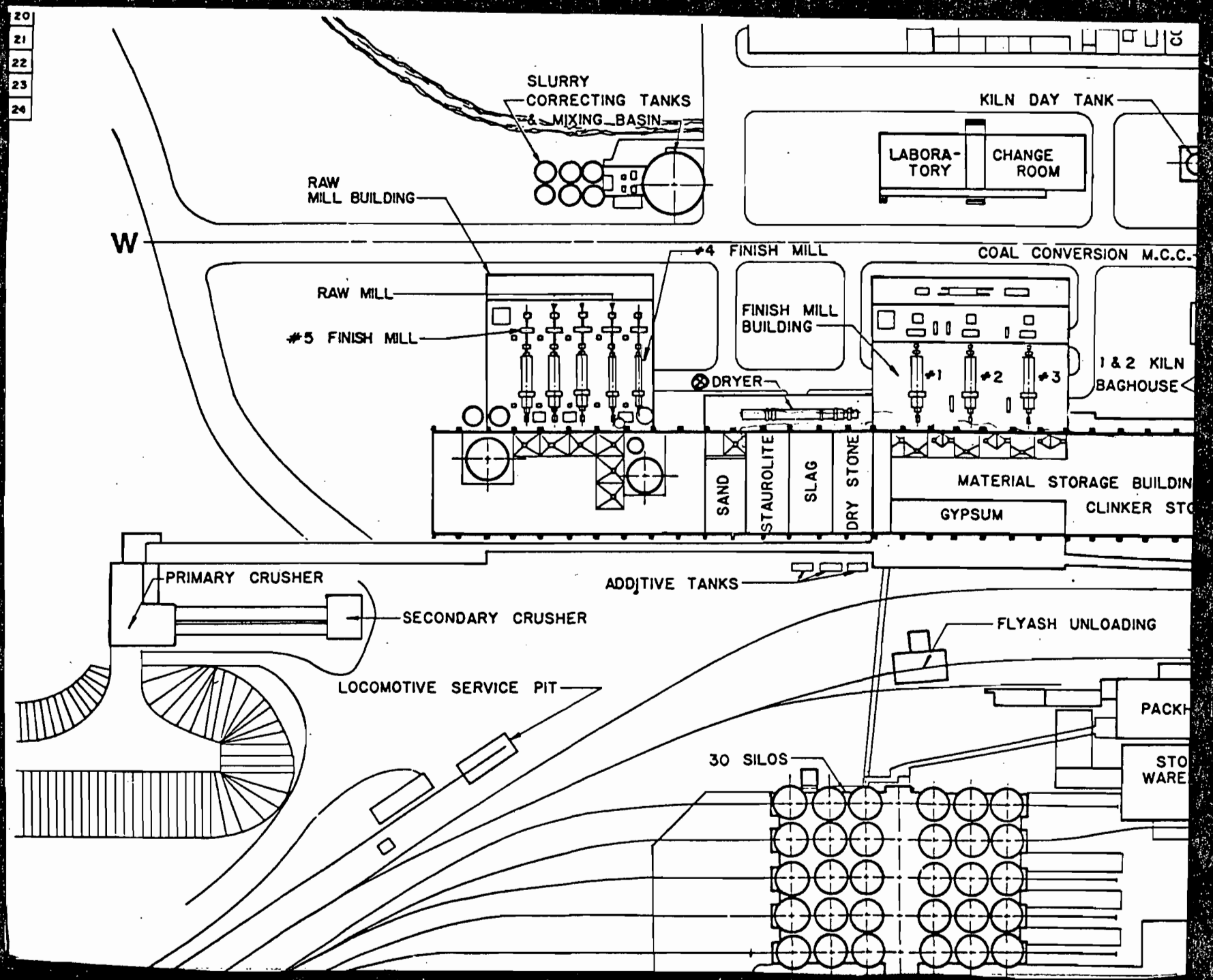


Figure E-1. Stacker fugitive dust control system.



August 1, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dear Sir:

The Department has concluded that the decontamination of soil in asphalt or similar plants has an unacceptable impact on the environment unless volatile organic compound (VOC) pollutants are controlled. Our records show that the permit for your plant allows it to decontaminate soil.

Please be advised that, under the authority of F.A.C. Rule 17-4.080, your permit allowing soil decontamination at this plant will be revoked unless the plant is fitted with control equipment capable of destructing VOC's with at least 95 percent efficiency (an afterburner or equivalent control equipment). Within 30 days of receipt of this letter, please notify this office in writing as to your intent to continue decontaminating soils. If you intend to continue, you must submit an application for a permit to construct within 60 days from receipt of this letter.

If you have any questions, please call me at

Sincerely,

District Air Program
Administrator

A-File

For Routing To Other Than The Addressee

To: _____ Location: _____

To: _____ Location: _____

To: _____ Location: _____

From: _____ Date: _____

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

TO: Deputy Assistant Secretaries
District Air Program Administrators
District Waste Management Program Administrators
Rick Wilkins
John Gentry
John Ruddell
Clair Fancy
Larry George

FROM: Steve Smallwood, P.E., Director
Division of Air Resources Management

DATE: July 19, 1990

SUBJ: SOIL DECONTAMINATION BY ASPHALT AND SIMILAR PLANTS; POLICY REVISION

In a memorandum dated April 2, 1987, the Bureau of Air Quality Management stated that permits to operate asphalt and similar plants could be modified to allow the decontamination of soil containing petroleum products and "on-spec" used oil provided that there was no increase in emissions.

Since that policy was established, the Bureau of Air Regulation has obtained more data on this activity through the review of applications for portable soil decontamination and other units, and through discussions with engineers that have dealt with these operations.

Several problems associated with soil decontamination have been brought to our attention. Among these problems are:

1. The potential VOC emissions are higher than were anticipated when the policy was originally adopted. The increase in VOC emissions from the decontamination facilities in most cases were high enough to require review as a plant modification under existing regulations.

2. Some of the potential VOC emissions are considered toxic air pollutants (i.e., benzene) and the impact of the emissions may exceed acceptable ambient concentration guidelines unless an afterburner or equivalent control device is used. The benzene TLV value of 30 milligrams per cubic meter was replaced with the Occupational Exposure Level of 3 milligrams per cubic meter for ambient air calculations.

limited to, the following: organic halogens; corrosivity; reactivity; toxicity characteristic constituents by the toxicity characteristic leachate procedure (TCLP), which includes 40 metals, organics, and pesticides; and polychlorinated biphenyls (PCB).

2. Since petroleum contaminated soil may contain metals which could constitute a health risk under certain exposure conditions, the following soil concentration levels must not be exceeded:

Contaminant	Maximum Concentration (milligrams per kilogram)
Arsenic	55
Barium	2750
Cadmium	55
Chromium	275
Lead	77
Mercury	17
Selenium	165
Silver	165

3. The particulate emissions cannot exceed 0.04 grains/dry standard cubic feet of exhaust gas.

SS/CHF/t

3. Inconsistency with the regulations of other Divisions.

Because of the problems associated with this activity, the Bureau of Air Regulation has concluded that the policy expressed in the April 2, 1987, memorandum needs to be revised. Future requests to modify permits to operate asphalt and similar plants to decontaminate soil without appropriate VOC controls will be denied.

Any applicant inquiring about the use of an asphalt or similar plant to decontaminate soil should be instructed to submit an application for a permit to construct which includes VOC controls. An afterburner or equivalent device capable of providing an overall control of at least 95 percent will be required on all soil decontamination units. Owners of kilns who claim that the efficiency of VOC control can be achieved without add on controls can be permitted provided tests confirm the required destruction of the VOC's.

Asphalt plants whose current permits authorize processing of contaminated soils shall be allowed 30 days from the receipt of the notification letter to notify the Department whether they intend to install VOC controls or cease decontaminating soils. They will then have another 30 days to submit an application for a construction permit or to cease decontaminating soils. You should review any permit application on a priority basis. A letter, similar to the attached draft, shall be sent to each asphalt plant in your area that is permitted to decontaminate soil by certified letter. The letter states that VOC pollutants need to be controlled with an afterburner or similar control device if they intend to continue to process contaminated soils. The degree of treatment should also be addressed in the specific conditions of the revised permit. Obviously, no permit to operate should be renewed unless the asphalt plant has installed VOC controls.

In addition to the provisions for VOC control, the Bureau of Air Regulation has revised the conditions governing the decontamination of soils to be consistent with the regulations and policies of the Division of Waste Management. As this is the case, soil may not be decontaminated under the following conditions:

1. The soil must not be classified as a hazardous waste. If the soils are suspected of containing a hazardous waste, then analyses for other contaminants may include, but are not

PM
1-9-89
Gainesville, FL

file copy

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

KA 446-88-02

January 6, 1989

Mr. Bill Thomas
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Rinker Portland Cement Corporation
Trial Burn for Processing Creosote-Contaminated Soil
Dade County, Florida

Dear Bill:

I am writing on behalf of the Rinker Portland Cement Corporation (Rinker) with corporate offices in West Palm Beach and a Portland cement plant in Dade County. As you are aware, Rinker is interested in processing soils contaminated with hydrocarbon products, including coal tars and creosote, in a rotary materials dryer located at their cement plant in Dade County. The dryer was originally installed in the plant to dry limestone used in the manufacture of Portland cement. The dryer has not been used for that purpose or for any other purpose for the past several years.

The dryer is approximately 90 feet long and six feet in diameter and was rated at approximately 25 tons per hour for drying limestone. The dryer is a counter-flow dryer with feed material entering the cold end of the dryer and discharging at the hot end. Rinker's plans are to feed contaminated soil to the dryer and to use the heat generated within the dryer to vaporize/combust the organic contaminants in the soil. The degree of vaporization and combustion will vary, depending on the volatility (the boiling point) of individual compounds. Rinker plans to control the organic compounds that are vaporized by ducting the off-gases from the dryer to the combustion zone of their cement kiln. In my professional opinion, the incineration of organics in the off-gases of the dryer in the cement kiln will offer very effective and virtually complete destruction of these compounds.

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609

GAINESVILLE FLA. JAN-7'88
U.S. POSTAGE 0.25
P.B. METER 1302590

Mr. Bill Thomas
Florida Department of
Environmental Regulaiton
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

In order to fully evaluate the effectiveness of the dryer for processing contaminated soil, to determine the most effective operating conditions (material throughput, rotational speed of the dryer, fuel firing rate, material discharge temperature, etc.), and to conduct the tests necessary to characterize and quantify the off-gases from the dryer that will be ducted to the cement kiln, Rinker would like Department approval for a trial burn. I understand that this matter has already been discussed with you in some detail.

As stated, the purpose of the trial burn would be to establish optimum dryer operating conditions and to characterize and quantify the gas stream that will be discharged from the dryer. During the test period, the gas stream from the dryer will be discharged to the atmosphere through a stack exhausting approximately 95 feet above ground level. Once the test has been conducted and the necessary information developed, Rinker will proceed with the installation of the ductwork and other necessary appurtenances to introduce the dryer off-gases to the existing cement kiln. I understand, based upon a conversation with you, that this modification will require an air construction permit.

For purposes of the test burn, Rinker would like permission to process 1000-1200 tons of creosote-contaminated soil. The initial conversations with you have been along the lines of a 500-ton trial burn. At a material processing rate of 25 tons per hour, a 500-ton trial burn will allow only 20 hours to develop all of the necessary information. We feel that this would be cutting things too close, considering the time that will be required to bring the dryer to a steady state operating condition, evaluate the performance of the dryer, change operating conditions (perhaps several times) and again, allow time for stabilization and evaluation, and finally to conduct the necessary tests to characterize the gases discharged from the dryer once the optimum operating range has been found. In addition, inclement weather could substantially add to the time for completing the tests.

Based on these considerations, and consistent with my telephone conversation with you on this date, Rinker is requesting approval to process 1000-1200 tons of soil during the trial burn. This will allow 40-48 hours to evaluate the dryer's performance and to conduct the necessary tests. It is anticipated that all testing can be completed in a two-week period. Generally, the first week would be allotted for the shake-down of the dryer and for evaluating the dryer operating conditions. The second week would be generally set aside for conducting all necessary tests. Generally, most of the trial will be conducted during daylight hours to take advantage of the manpower present during the day shift. I would also like to restate, as I told you during our telephone conversation, that the initial shake-down of the dryer will be with a limestone or other uncontaminated feed material.

I appreciate your consideration of this request and will be more than happy to provide you with any additional information should it be required. Rinker is presently proceeding with the maintenance and repairs to the dryer and should be ready to conduct the trial burn by the week of January 16, 1989. I would appreciate your consideration of these matters and a decision at the earliest possible time, so that we can proceed on schedule.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D, P.E.

JBK:mab

cc: Mr. I. Goldman, FDER, West Palm Beach
Mr. H. Patrick Wong, Dade County Environmental Resource Management
Mr. W.E. Voshell, Rinker, West Palm Beach
Mr. M.D. Vardeman, Rinker, Miami