

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:

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

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 Statute, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.


Clerk

5-22-91
Date

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

1/2

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 SO₂, 6.3 lbs/hr and 27.8 TPY NO_x, 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 stream, 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 (SO₂, NO_x, and CO).

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>TPY</u>
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 SO₂ 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, SO₂, 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 exchangers 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 SO₂. Therefore, the net emissions increase of SO₂ 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/m³ (8 hr. std.), 7.1 ug/m³ (24 hr. std.), and 0.12 ug/m³ (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/m³ (1 hr.), 4.34 ug/m³ (8 hr.), and 0.62 ug/m³ (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
5-22-9



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

PERMITTEE:
Rinker Materials Corporation

Permit Number: AC 13-187599
Expiration Date: March 30, 1992

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.).

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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

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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:

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SPECIFIC CONDITIONS:

<u>Metals</u>	<u>Maximum Concentration</u>	
	<u>TCLP (mg/L)</u>	<u>Total (mg/Kg)</u>
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:

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SPECIFIC CONDITIONS:

<u>Soil Quantity (yards³)</u>	<u>No. of Composite Samples</u>
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:

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

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/m³ (1 hr.), 4.34×10^{-3}
mg/m³ (8 hr.), and 0.62×10^{-3} mg/m³ (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.

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

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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.

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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

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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

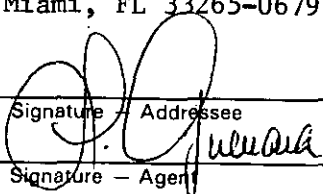
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
5. Signature - Addressee X 		Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .	
6. Signature - Agent X		8. Addressee's Address (ONLY if requested and fee paid)	
7. Date of Delivery MAY 30 1991			

PS Form 3811, Apr. 1989

U.S.G.P.O. 1989-238-815

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P 407 852 697

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

U.S.G.P.O. 1989-234-555

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	

PS Form 3800, June 1985