



APAC-Florida, Inc.

Macasphalt Division

P.O. Box 1819

Winter Haven, FL 33882-1819

Office 941/967-0646 □ Fax 941/967-6829



Macasphalt
Division

Certified Mail

June 22, 1998

Florida Department of
Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Attn: Ms. Susan DeVore-Fillmore

RECEIVED
JUN 24 1998
BUREAU OF
AIR REGULATION

RE: Request Modification of Air Permit, Relocate Existing Source

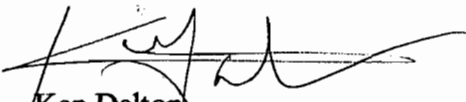
Dear Ms. DeVore-Fillmore:

0550012-003-AC

Enclosed is a check in the amount of \$250.00 for the Modification of our existing Construction Permit AC 49-102883 along with the required Professional Engineer Certification page for the request to modify both our Construction and Operating Permits. It is our intent to start the move on or about September 15, 1998 as soon as our new asphalt plant already permitted at the Osceola County plant site is up and running.

Should there be any additional information needed regarding this request, please do not hesitate to contact me at (941) 967-0646.

Sincerely,


Ken Dalton
EHS Director



EQUAL
OPPORTUNITY
EMPLOYER

Professional Engineer Certification

1. Professional Engineer Name : LARRY G. STUART, P.E. Registration Number : 50660
2. Professional Engineer Mailing Address : Organization/Firm : BOTTORF ASSOCIATES, INC. Street Address : 6729 EDGEWATER COMMERCE PKWY. City : ORLANDO State : FL Zip Code : 32810-4278
3. Professional Engineer Telephone Numbers : Telephone : (407)298-0846 Fax : (407)299-7053
4. Professional Engineer Statement : <i>I, the undersigned, hereby certified, except as particularly noted herein*, that :</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> _____ Signature _____ Date

* Attach any exception to certification statement.

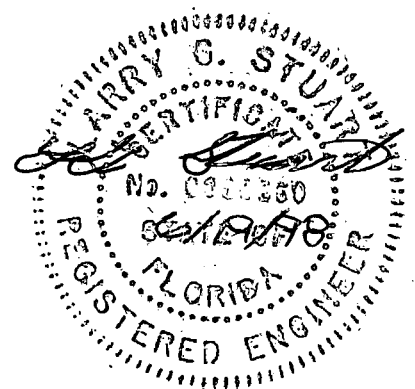
I. Part 6 - 1

DEP Form No. 62-210.900(2) - Form

Effective : 3-21-96

For revision of permits:

*AC 49 - 102883 &
0970030 - 001 - A0*

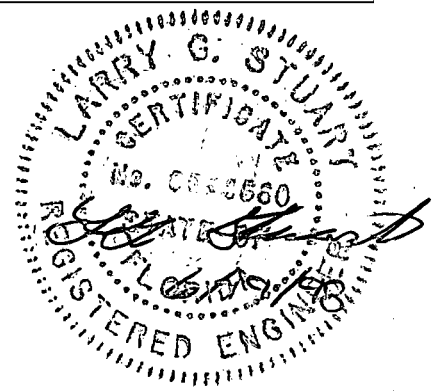


Professional Engineer Certification

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* Attach any exception to certification statement.

For revision of
permits:
AC 49-102883 &
0970030-001-A0



Professional Engineer Certification

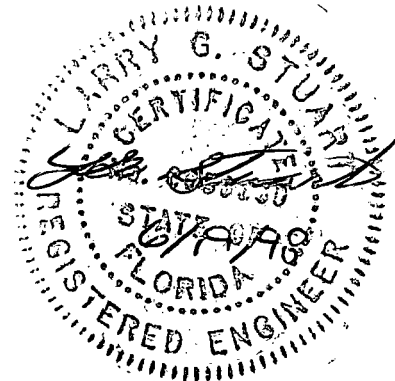
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* Attach any exception to certification statement.

I. Part 6 - 1

DEP Form No. 62-210.900(2) - Form
Effective : 3-21-96

For revision of
permit 1205 :
AC 49 - 102883 &
0970030-001-10



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX ALEXANDER
DISTRICT MANAGER

Alfred S. Amos, President
Osceola Paving Company
Post Office Box 1209
Kissimmee, Florida 32742

Dear Mr. Amos:

Osceola County - AP
Recycle Drum Mix 145 TPH Coal Fired Asphalt Plant

Attached is Permit Number AC49-102883. Should you object to the issuance of this permit or the specific conditions of the permit, you have a right to petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes. The petition must be filed within fourteen (14) days from receipt of this letter, dated AUG 13 1985. The petition must comply with the requirements of Section 17-103.155 and Rule 28-5.201, Florida Administrative Code, (copies attached) and be filed pursuant to Rule 17-103.155(1) in the Office of General Counsel of the Department of Environmental Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32301. Petitions which are not filed in accordance with the above provisions are subject to dismissal by the Department. In the event a formal hearing is conducted pursuant to Section 120.57(1), all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel. If an informal hearing is requested, the agency, in accordance with its rules of procedure, will provide affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer, written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), Florida Statutes.

Sincerely,

Alexander
A. Alexander, P.E.
District Manager

AA:scm

APPLICANT WILL PROVIDE PERMIT COPIES TO HIS ENGINEER OR OTHERS AS REQUIRED.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



ST. JOHNS RIVER DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX ALEXANDER
DISTRICT MANAGER

December 30, 1985

Alfred S. Amos, President
Osceola Paving Company
Post Office Box 1209
Kissimmee, Florida 32742

Dear Mr. Amos:

Osceola County - AP
Osceola Paving Company
Modification of Conditions
Permit No. AC49-102883

We are in receipt of your request for a modification of the permit conditions. The conditions are changed as follows:

<u>Condition</u>	<u>From</u>	<u>To</u>
1. Page 1, Description	Coal Fired Recycle Drum Mix Asphalt Plant and a 4 TPH Coal Preparation plant....	Natural Gas Fired Recycle Drum Mix Asphalt plant....
2. Page 1, Description	The exhaust from the Pulverizer Baghouse, which	Delete
3. Specific Condition #7	This source will be fired with low sulfur coal consistent with coal analyses submitted as part of your application.	This source will be fired with natural gas only.
4. Expiration Date on all pages	2/12/86	8/13/86

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

A. Alexander, P.E.
District Manager

AA:atsy

DER FORM 17-1.122(59)

**RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
RULE 28-5.201
DECISIONS DETERMINING SUBSTANTIAL INTERESTS**

**PART II
FORMAL PROCEEDINGS**

28-5.201 Initiation of Formal Proceedings.

- (1) Initiation of formal proceedings shall be made by petition to the agency responsible for rendering final agency action. The term petition as used herein includes any application or other document which expresses a request for formal proceedings. Each petition should be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be double-spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners, and an explanation of how his/her substantial interests will be affected by the agency determination;
 - (c) A statement of when and how petitioner received notice of the agency decision or intent to render a decision;
 - (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
 - (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;
 - (f) A demand for relief to which the petitioner deems himself entitled, and
 - (g) Other information which the petitioner contends is material.

A petition may be denied if the petitioner does not state adequately a material factual allegation, such as a substantial interest in the agency determination, or if the petition is untimely. (Rule 28-5.201(3)(a), Florida Administrative Code)

Section 17-103.155(1), Florida Administrative Code
Petition for Administrative Hearing; Waiver of Right to
Administrative Proceeding

(1)(a) Any person whose substantial interests may be affected by proposed or final agency action may file a petition for administrative proceeding. A petition shall be in the form required by this Chapter and Chapter 28-5, FAC, and shall be filed (received) in the Office of General Counsel of the Department within fourteen (14) days of receipt of notice of proposed agency action or within fourteen (14) days of receipt of notice of agency action whenever there is no public notice of proposed agency action. In addition to the requirements of Rule 28-5.201, FAC, the Petition must specify the county in which the project is or will be located.

(b) Failure to file a petition within fourteen (14) days of receipt of notice of agency action or fourteen (14) days of receipt of notice of proposed agency action, whichever notice first occurs, shall constitute a waiver of any right to request an administrative proceeding under Chapter 120, F.S.

(c) When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 17-103.150, FAC, a person who has actual knowledge of the agency action or has knowledge which would lead a reasonable person to conclude that the Department has taken final agency action, has a duty to make further inquiry within fourteen (14) days of obtaining such knowledge by contacting the Department to ascertain whether action has occurred. The Department shall upon receipt of such an inquiry, if agency action has occurred, promptly provide the person with notice as prescribed by Rule 17-103.150, FAC. Failure of the person to make inquiry with the Department within fourteen (14) days after obtaining such knowledge may estop the person from obtaining an administrative proceeding on the agency action.

(2)(a) "Receipt of notice of agency action" means receipt of written notice of final agency action, as prescribed by Department rule, or the publication, pursuant to Department rule, of notice of final agency action, whichever first occurs.

(b) "Receipt of notice of proposed agency action" means receipt of written notice (such as a letter of intent) that the Department proposes to take certain action, or the publication pursuant to Department rule of notice of proposed agency action, whichever first occurs.

(3) Notwithstanding any other provision in this Chapter, should a substantially affected person who fails to timely request a hearing under Section 120.57, F.S., administratively appeal the final Department action or order, the record on appeal should be limited to:

(a) the application, and accompanying documentation submitted by the applicant prior to the issuance of the agency's intent to issue or deny the requested permit.

(b) the materials and information relied upon by the agency in determining the final agency action or order;

(c) any notices issued or published; and

(d) the final agency action or order entered concerning the permit application.

(4) In such cases where persons do not timely exercise their rights accorded by Section 120.57(1), Florida Statutes, the allegations of fact contained in or incorporated by the final agency action shall be deemed uncontested and true, and appellants may not dispute the truth of such allegations upon subsequent appeal.

(5) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by the applicant of the Department's notification, pursuant to Section 403.0876, F.S., that additional information is required.

Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S. History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

(5) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by the applicant of the Department's notification, pursuant to Section 403.0876, F.S., that additional information is required.

Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S. History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX ALEXANDER
DISTRICT MANAGER

Permittee:
Alfred S. Amos, President
Osceola Paving Company
Post Office Box 1209
Kissimmee, Florida 32742

I. D. Number:
Permit/Certification
Number: AC49-102883
Date of Issue: 08/13/85
Expiration Date: 02/12/86
County: Osceola
Latitude/Longitude:
28°19'17"/81°23'50"
UTM: 17-461 Km East
UTM: 3132.677 Km North
Project: Recycle Drum Mix 145 TPH
Coal Fired Asphalt Plant

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2. 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:

The permittee can construct a 145 TPH Coal fired Recycle Drum Mix Asphalt Plant and a 4 TPH Coal Preparation plant manufactured by Astec Industries, Incorporated. Particulate emissions from this facility are controlled by an Astec Industries Baghouse, Model #SBH42 (design gas flow rate = 38,500 ACFM, air to cloth ratio of 5.52:1, 99.9% collection efficiency and equipped with felted Nomex Bags). The exhaust from the Pulverizer Baghouse, which contains coal fines, is mixed with the combustion air that is utilized for the Drum Mix Dryer. Fugitive emissions from the coal preparation plant shall be controlled by spraying water.

This source is located at the intersection of S.R. 527 and Duncan Street in Kissimmee, Osceola County, Florida.

General Conditions 1 through 15 are attached to be distributed to the permittee only.

DER FORM 17-1.201(5) Effective November 30, 1982 Page 1 of 6

BEST AVAILABLE COPY

PERMITTEE:

Alfred S. Amos, President
C. Sola Paving Company
Post Office Box 1209
Kissimmee, Florida 32742

I.D. Number:

Permit/Certification Number: 102883
Date of Issue: 08/13/85
Expiration Date: 2/12/86

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
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. Nor 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 does not constitute 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.

This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, 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.

6. The permittee shall at all times 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:
 - a. Having access to and copying any records that must be kept under the conditions of the permit;
 - b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sampling or monitoring 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 notify and provide the department with the following information:
 - a. a description of and cause of non-compliance; and

PERMITTEE:

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

b. the period of noncompliance, including exact 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 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 arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
13. This permit also constitutes:
 - Determination of Best Available Control Technology (BACT)
 - Determination of Prevention of Significant Deterioration (PSD)
 - Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - Compliance with New Source Performance Standards
14. The permittee shall comply with the following monitoring and record keeping requirements:
 - a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.
 - b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.
15. 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 submitted or corrected promptly.

Permittee:
Alfred S. Amos, President
Osceola Paving Company
Post Office Box 1209
Kissimmee, Florida 32742

I. D. Number:
Permit/Certification
Number: AC49-102883
Date of Issue: 08/13/85
Expiration Date: 02/12/86

SPECIFIC CONDITIONS:

1. No objectionable odors will be allowed, as per Rule 17-2.620(2), F.A.C.
2. There shall be no discharges of liquid effluents or contaminated runoff from the plant site without approval from this office.
3. All unconfined emissions of particulate matter generated at this site shall be adequately controlled. (Rule 17-2.610(3), F.A.C.)
Area must be watered down should unconfined emissions occur.
4. This permit does not preclude compliance with any applicable local permitting requirements and regulations.
5. The permitted process input rate for this source is 145 tons per hour, at an aggregate moisture content of 10%.
6. The drum mix coater baghouse should be properly maintained to operate at its design efficiency.
7. This source will be fired with low sulfur coal consistent with coal analyses submitted as part of your application.
8. This source is permitted to operate 2,400 hours/year.
9. The emission limitations for this asphalt plant are subject to (NSPS) New Source Performance Standards (Rule 17-2.660 F.A.C.), and are as follows:

20% opacity
0.04 Grains/DSCF (Particulate)

Permittee:
Alfred S. Amos, President
Osceola Paving Company
Post Office Box 1209
Kissimmee, Florida 32742

I. D. Number:
Permit/Certification
Number: AC49-102883
Date of Issue:
Expiration Date: 02/12/86

SPECIFIC CONDITIONS:

10. Submit for this facility, each calendar year, on or before March 1, an Annual Operations Report for the preceding calendar year as per Rule 17-4.14, F.A.C. [DER Form 17-1.202(6)].
11. This office (Florida Department of Environmental Regulation, Air Permitting, Orlando) shall be notified at least ten (10) days in advance of the compliance tests so that we can witness them.
12. This plant is required to operate within 10 percent of permitted capacity during the compliance tests.
13. A differential pressure gauge is required to measure the pressure drop across the baghouse a minimum of 10 days before the stack test is performed.
14. Within 30 days after this plant is operational, it must be tested concurrently for particulate emissions in accordance with EPA Method 5 and for visible emissions in accordance with DER Method 9.
15. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last test is completed.
16. All source sampling and monitoring must be in accordance with Rule 17-2.700, F.A.C., Stationary Point Source Emission Test Procedures.
17. The stack test report must be submitted in accordance with Rule 17-2.700(7) Test Reports, F.A.C.

Permittee:
Alfred S. Amos, President
Osceola Paving Company
Post Office Box 1209
Kissimmee, Florida 32742

I. D. Number:
Permit/Certification
Number: AC49-102883
Date of Issue:
Expiration Date: 02/12/86

SPECIFIC CONDITIONS:

18. Sixty (60) days prior to the expiration date of this permit or in no case later than 4 months after the first day of operation, the Certification of Completion of Construction (enclosed) must be completed by your Engineer of Record and submitted to this office with the compliance test report and the required permit fee.

Issued AUG 13 1985.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

a.m.c. Gale
A. Alexander, P.E.
District Manager

Filing and Acknowledgment
Filed on this date,
pursuant to §120.52(9),
Florida Statutes, with the
designated Clerk, receipt of
which is acknowledged.

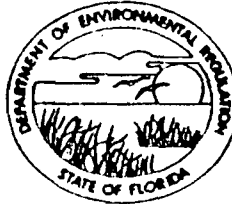
Alene B. Borkin
CLERK

AUG 13 1985
DATE

This is to certify that this Notice of Permit was mailed before
the close of business on AUG 13 1985.

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803



BOB GRAHAM GOVERNOR
VICTORIA J. TSCHINKEL SECRETARY
ALEX SENKEVICH DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Asphalt Plant [X] New [] Existing

APPLICATION TYPE: [X] Construction [] Operation [] Modification

COMPANY NAME: OSCEOLA PAVING COMPANY COUNTY: Osceola

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) Coal Fired Aggregate Dryer w/Baghouse

SOURCE LOCATION: Street S. R. 527 & Duncan St. City Kissimmee, Florida

UTM: East 17-461.000 North 3132.677

Latitude 28 ° 19 ' 17 "N Longitude 81 ° 23 ' 50 "W

APPLICANT NAME AND TITLE: ALFRED S. AMOS, PRESIDENT

APPLICANT ADDRESS: P. O. Box 1209, Kissimmee, Florida 32742-1209

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Osceola Paving Company

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. Further I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida 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-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Alfred S. Amos

Alfred S. Amos, President
Name and Title (Please type)

Date: 4/16/85 Telephone No. 305/275-0264

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 have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in permit application. There is reasonable assurance, in my professional judgment,

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

he 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 John W. Bottorf, Jr.

John W. Bottorf, Jr.

Name (Please Type)

Seabury-Bottorf Associates, Inc.

Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057

Mailing Address (Please Type)

Florida Registration No. 13089 Date: 4/16/85 Telephone No. 305/298-0846

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.

A drum mix asphalt plant with capability of recycling paving material with virgin material utilizing a baghouse (cloth filter type) capable of maintaining particulate emissions within allowable limits. SO2 emissions will be within allowable limits from low sulphur (1%) coal fuel.

- B. Schedule of project covered in this application (Construction Permit Application Only)
Start of Construction Upon receipt of permit Completion of Construction 180 days after start

- 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.)

\$160,000.00

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

New Source.

E. Requested permitted equipment operating times: hrs/day 8 ; days/wk 6 ; wks/yr 50 ;
if power plant, hrs/yr _____ ; if seasonal, describes: Operation is not seasonal, but
will vary according to the demand for asphaltic concrete for highway resurfacing
and construction as limited by weather conditions and competitive factors.

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? No
a. If yes, has "offset" been applied? _____
b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
c. If yes, list non-attainment pollutants. _____

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? Yes

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? No

a. If yes, for what pollutants? _____

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 justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization ^a Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Virgin Aggregate	Particulate	Varies	110,079 to 275,472	Feeder Bins
Recycle Pavement	Particulate	Varies	0 to 165,283	Recycle Feeder Bins
Liquid Asphalt	None		6405 to 16,528	Asphalt Storage

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 290,000

2. Product Weight (lbs/hr): 289,993 (7 Lbs. emitted from stack)

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 Emission Rate per Rule 17-2	Allowable Emission ³ lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	6.89	8.27	.660(2)(a)	7.13	16.55 x 10 ⁶	8,273	Stack
SO ₂ ^b	41.4	49.7			198,816	99.4	Stack
CO	2.2	2.6			5,232	2.6	Stack
Hydrocarbons	0.65	0.78			1,560	0.78	Stack
NO _x	39.2	47			94,080	47	Stack

¹See Section V, Item 2.

²Reference 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)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

^aBased on 10% moisture content. Utilization rates are given as maximums and can vary according to the attached Table (Figure 17). The product can vary from 40 to 100% virgin and from 0 to 60% recycle.

^bBased on coal w/1% sulphur.

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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)
Astec Fabric Filter Baghouse	Particulate	99.9%	.3 - 500 micron	See manufac- turer's data (attached)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Coal	2617	4361#/hr.	53

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: *

Percent Sulfur: 1% Percent Ash: 10.57

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: 12,182 BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Returned to the manufacturing process.

*Worst case, see attached lab analyses.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 29 ft. Stack Diameter: Rectangular 2.3 x 3.4 ft.
 Gas Flow Rate: 38,500 ACFM 20,800 DSCFM Gas Exit Temperature: 321 °F.
 Water Vapor Contents: 20 % Velocity: 82 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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: _____

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 N/A

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 Costs:

9. Emissions:

Contaminant

Rate or Concentration

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:

¹Explain method of determining efficiency.

²Energy 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

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

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant 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 - N/A

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂ _____ 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).

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Effective November 30, 1982

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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.

OSCEOLA PAVING COMPANY

Supplement to Section V, DER Form 17-1.202(1)

1. Derivation of Process Input Rate:

Based on manufacturer's design data and the attached table, Production Rates of Drum Mixers, (figure 17) this plant can produce 145 tons per hour of asphaltic concrete when the aggregate has a 10% moisture content.

2. Particulate Emission Estimates:

Potential

Potential uncontrolled emissions from the plant are based on Emission Factors from AP-42, table 8.1-1, and table 1.1-2. (attached)

Plant Operation:

Uncontrolled Emission Rate = 45 lb/ton
Production Rate = 145 ton/hr
Uncontrolled Emissions = 145 ton/hr x 45 lb/ton
Uncontrolled Emissions = 6,525 lb/hr

Coal Burning:

Uncontrolled Emission Rate = 16(% ash) lb/ton of coal
burned
% Ash = 10.57 (worst possible case, see attached coal
analyses)
Uncontrolled Emission Rate = 16(10.57) = 169 lb/ton
Burning Rate = 2.18 ton/hr
Uncontrolled Emissions = 2.18 ton/hr x 169 lb/ton
Uncontrolled Emissions = 369 lb/hr

Total Uncontrolled Emissions (TUE):

TUE = Plant Operation + Coal Burning
TUE = 6,525 lb/hr + 369 lb/hr = 6,894 lb/hr

Actual

Actual Emissions = Uncontrolled Emissions x (1 - efficiency)
Efficiency = 99.9% (see attached manufacturer's guarantee)
Actual Emissions = 6,894 lb/hr x (1 - .999)
Actual Emissions = 6.89 lb/hr.

Allowable

Allowable Emissions from Asphaltic Concrete Plants is based on 40 CFR 60.92, and = 0.04 grains/dscf

Stack Gas Flow Rate = 20,800 dscfm

Allowable Emissions = $\frac{20,800 \text{ dscfm} \times .04 \text{ gr/dscf} \times 60}{7,000 \text{ gr/lb}}$

Allowable Emissions = 7.13 lb/hr

3. Sulfur Oxide Emission Estimates

Potential

Uncontrolled Emission Rate = 38(% sulfur) lb/ton of coal burned

% Sulfur = 1 (worst possible case)

Uncontrolled Emission Rate = 38(1) = 38 lb/ton

Burning Rate = 2.18 ton/hr

Uncontrolled Emissions = 38 lb/ton x 2.18 ton/hr

Uncontrolled Emissions = 83 lb/hr

Actual

Actual Emissions = Potential x Absorption Factor

Absorption Factor = 50% (see attached SO_x emissions summaries)

Actual Emissions = 83 lb/hr x .5

Actual Emissions = 41.5 lb/hr

4. Carbon Monoxide Emissions Estimates:

Potential Emission Rate = 1 lb/ton of coal burned

Burning Rate = 2.18 ton/hr

Potential Emissions = 1 lb/ton x 2.18 ton/hr

Potential/Actual Emissions = 2.18 lb/hr

5. Hydrocarbons Emissions Estimates:

Potential Emission Rate = 0.3 lb/ton of coal burned

Burning Rate = 2.18 ton/hr

Potential Emissions = 0.3 lb/ton x 2.18 ton/hr

Potential/Actual Emissions = 0.65 lb/hr

6. Nitrogen Oxide Emissions Estimate:

Potential Emission Rate = 18 lb/ton of coal burned

Burning Rate = 2.18 ton/hr

Potential Emissions = 18 lb/ton x 2.18 ton/hr

Potential/Actual Emissions = 39 lb/hr

Excess Air - 25%

AC in mix - 5.5%

Mix temperature - 300° F (Fig. #18 shows mix temps. of 250° F, 275° F and 300° F)

Stack temperature - 310° F (Fig. #19 shows stack temps of 310° F to 400° F)

Air to fuel ratio - 16

AC temperature - 300°

Air leakage - 10% (Fig #20 shows air leakage of 10% and 20%)

Fuel used - No. 2 oil

Combustion Efficiency - 85% (Based on lower heating value of fuel being 0.92 times higher heating value and a reduction of combustion efficiency of 0.93 due to flame impingement and normal burner maintenance.

OPERATING RANGE

Drum Mix Size	ACFM	Percent of Moisture Removed and Gallons of Fuel per Ton													
		2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
3'	7,000	92	72	58	49	42	37	33	29	27	24	22	20	19	18
4'	12,500	164	127	104	87	75	66	58	52	47	43	39	36	34	31
5'	19,500	256	199	162	136	117	103	91	82	74	67	62	57	53	49
6'	28,000	388	288	233	196	169	148	131	118	106	97	89	82	78	70
7'	38,500	501	390	318	267	230	201	178	160	145	132	121	111	103	96
8'	50,000	657	511	416	350	301	264	234	210	190	173	158	146	135	125
9'	63,500	833	648	528	444	382	334	297	266	240	219	201	185	171	159
10'	78,500	1,031	802	654	550	473	414	367	329	298	271	248	229	212	197

PRODUCTION RATES OF DRUM MIXERS
IN TONS PER HOUR

FIGURE 17

Figure #17 shows a production rate and fuel consumption for a 3' diameter thru 10' diameter drum mixer with moisture contents from 3% to 15%. This table is based on stack temperatures of 310° and mix temperatures of 300°. The exhaust volumes are based on 1000 fpm drum gas velocity. When other

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In a continuous plant, the classified aggregate drops into a set of small bins, which collect and meter the classified aggregate to the mixer. From the hot bins, the aggregate is metered through a set of feeder conveyors to another bucket elevator and into the mixer. Asphalt is metered into the inlet end of the mixer, and retention time is controlled by an adjustable dam at the end of the mixer. The mix flows out of the mixer into a hopper from which the trucks are loaded.

8.1.2 Emissions and Controls^{3,4}

Dust sources are the rotary dryer; the hot aggregate elevators; the vibrating screens; and the hot-aggregate storage bins, weigh hoppers, mixers, and transfer points. The largest dust emission source is the rotary dryer. In some plants, the dust from the dryer is handled separately from emissions from the other sources. More commonly, however, the dryer, its vent lines, and other fugitive sources are treated in combination by a single collector and fan system.

The choice of applicable control equipment ranges from dry, mechanical collectors to scrubbers and fabric collectors; attempts to apply electrostatic precipitators have met with little success. Practically all plants use primary dust collection equipment, such as large diameter cyclone, skimmer, or settling chambers. These chambers are often used as classifiers with the collected materials being returned to the hot aggregate elevator to combine with the dryer aggregate load. The air discharge from the primary collector is seldom vented to the atmosphere because high emission levels would result. The primary collector effluent is therefore ducted to a secondary or even to a tertiary collection device.

Emission factors for asphaltic concrete plants are presented in Table 8.1-1. Particle size information has not been included because the particle size distribution varies with the aggregate being used, the mix being made, and the type of plant operation.

Table 8.1-1. PARTICULATE EMISSION FACTORS
FOR ASPHALTIC CONCRETE PLANTS^a
EMISSION FACTOR RATING: A

Type of control	Emissions	
	lb/ton	kg/MT
Uncontrolled ^b	45.0	22.5
Precleaner	15.0	7.5
High-efficiency cyclone	1.7	0.85
Spray tower	0.4	0.20
Multiple centrifugal scrubber	0.3	0.15
Baffle spray tower	0.3	0.15
Orifice-type scrubber	0.04	0.02
Baghouse ^c	0.1	0.05

^aReferences 1, 2, and 5 through 10.

^bAlmost all plants have at least a precleaner following the rotary dryer.

^cEmissions from a properly designed, installed, operated, and maintained collector can be as low as 0.005 to 0.020 lb/ton (0.0025 to 0.010 kg/MT).

Table 1.1-2. EMISSION FACTORS FOR BITUMINOUS COAL COMBUSTION WITHOUT CONTROL EQUIPMENT
EMISSION FACTOR RATING: A

Furnace size, 10 ⁶ Btu/hr heat input ^a	Particulates ^b		Sulfur oxides ^c		Carbon monoxide		Hydro- carbons ^d		Nitrogen oxides		Aldehydes	
	lb/ton coal burned	kg/MT coal burned	lb/ton coal burned	kg/MT coal burned	lb/ton coal burned	kg/MT coal burned	lb/ton coal burned	kg/MT coal burned	lb/ton coal burned	kg/MT coal burned	lb/ton coal burned	kg/MT coal burned
Greater than 100 ^e (Utility and large industrial boilers)												
Pulverized												
General	16A	8A	38S	19S	1	0.5	0.3	0.15	18	9	0.005	0.0025
Wet bottom	13A ^f	6.5A	38S	19S	1	0.5	0.3	0.15	30	15	0.005	0.0025
Dry bottom	17A	8.5A	36S	19S	1	0.5	0.3	0.15	18	9	0.005	0.0025
Cyclone	2A	1A	38S	19S	1	0.5	0.3	0.15	55	27.5	0.005	0.0025
10 to 100 ^g (large commercial and general industrial boilers)												
Spreader stoker ^h	13A ⁱ	6.5A	38S	19S	2	1	1	0.5	15	7.5	0.005	0.0025
Less than 10 ^j (commercial and domestic furnaces)												
Underfeed stoker	2A	1A	38S	19S	10	5	3	1.5	6	3	0.005	0.0025
Hand-fired units	20	10	38S	19S	90	45	20	10	3	1.5	0.005	0.0025

^a 1 Btu/hr = 0.252 kcal/hr.

^b The letter A on all units other than hand-fired equipment indicates that the weight percentage of ash in the coal should be multiplied by the value given. Example: If the factor is 16 and the ash content is 10 percent, the particulate emissions before the control equipment would be 10 times 16, or 160 pounds of particulate per ton of coal (10 times 8, or 80 kg of particulates per MT of coal).

^c S equals the sulfur content (see footnote b above).

^d Expressed as methane.

^e References 1 and 3 through 7.

^f Without fly-ash reinjection.

^g References 1, 4, and 7 through 9.

^h For all other stokers use 5A for particulate emission factor.

ⁱ Without fly-ash reinjection. With fly-ash reinjection use 20 A. This value is not an emission factor but represents loading reaching the control equipment.^l

^l References 7, 9, and 10.

TECHNICAL LABORATORIES, INC.

515 CHEROKEE BLVD.

CHATTANOOGA, TENNESSEE 37405

615/265-4533

MARTIN H. DAVIS
President

ACCOUNT NO. 1237-001 DATE NOVEMBER 16, 1984
RECEIVED FROM ASTEC INDUSTRIES, INC., P. O. BOX 72787, CHATTANOOGA, TENNESSEE
MR. TOM STANDARD 37407
RECEIVED DATE 10/12/84
MATERIAL COAL
MARKED SAMPLE NO. 6, THOMPSON MCCULLY, RAW COAL, 10/04/84 (SUBMITTED IN A
SEALED CONTAINER)
LABORATORY NO. 221,003

	<u>AS</u> <u>ANALYZED</u>	<u>DRY</u> <u>BASIS</u>	<u>ASH &</u> <u>MOISTURE</u> <u>FREE</u>	<u>AS</u> <u>RECEIVED</u>
Moisture	4.91 %	0.00 %	0.00 %	7.40 %
Volatile	32.84	34.54	38.99	31.98
Fixed Carbon	51.40	54.05	61.01	50.05
Ash	10.85	11.41	0.00	10.57
Sulfur	0.76	0.80	0.90	0.74
Btu	12,510	13,156	14,850	12,182

Hardgrove Grindability Index 35

MINERAL ANALYSIS OF ASH

Silicon Dioxide (SiO ₂)	54.0	%
Aluminum Oxide (Al ₂ O ₃)	27.5	%
Ferric Oxide (Fe ₂ O ₃)	9.2	%
Titanium Dioxide (TiO ₂)	2.2	%
Phosphorus Pentoxide (P ₂ O ₅)	0.24	%
Sulfur (SO ₃)	1.2	%
Calcium Oxide (CaO)	1.4	%
Magnesium Oxide (MgO)	1.2	%
Sodium Oxide (Na ₂ O)	1.1	%
Potassium Oxide (K ₂ O)	1.4	%

TECHNICAL LABORATORIES, INC.

Martin H. Davis

MARTIN H. DAVIS
President

TECHNICAL LABORATORIES, INC.

515 CHEROKEE BLVD.

CHATTANOOGA, TENNESSEE 37405

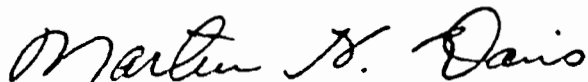
615/265-4533

MARTIN H. DAVIS
President

ACCOUNT NO. 1237-001 DATE DECEMBER 17, 1984
RECEIVED FROM ASTEC INDUSTRIES, INC., P. O. BOX 72787, CHATTANOOGA, TENNESSEE
MR. CECIL LEE 37407
RECEIVED DATE 12/14/84
MATERIAL COAL
MARKED APAC, ALABAMA, 12/03/84 (SUBMITTED IN A SEALED CONTAINER)
LABORATORY NO. 223,209

	<u>AS ANALYZED</u>	<u>DRY BASIS</u>	<u>ASH & MOISTURE FREE</u>	<u>AS RECEIVED</u>
Moisture	2.91 %	0.00 %	0.00 %	3.53 %
Volatile	33.53	34.53	37.32	33.31
Fixed Carbon	56.30	57.99	62.68	55.94
Ash	7.26	7.48	0.00	7.22
Sulfur	0.74	0.76	0.82	0.73
Btu	13,430	13,833	14,951	13,345
Hardgrove Grindability Index			49	

TECHNICAL LABORATORIES, INC.



MARTIN H. DAVIS
President

ibc

TECHNICAL LABORATORIES, INC.

515 CHEROKEE BLVD.

CHATTANOOGA, TENNESSEE 37405

615/265-4533

MARTIN H. DAVIS
President

ACCOUNT NO. 1237-001 DATE SEPTEMBER 12, 1984

RECEIVED FROM ASTEC INDUSTRIES, INC., P. O. BOX 72787, CHATTANOOGA, TENNESSEE
MR. TOM STANDARD 37407

RECEIVED DATE 09/07/84

MATERIAL COAL (TENN. CONSOLIDATED COAL FROM VULCAN)

MARKED 09/07/84 (SUBMITTED IN A SEALED CONTAINER) Sample caught 9-6-84

LABORATORY NO. 219,904

	<u>AS ANALYZED</u>	<u>DRY BASIS</u>	<u>ASH & MOISTURE FREE</u>	<u>AS RECEIVED</u>
Moisture	1.85 %	0.00 %	0.00 %	2.76 %
Volatile	28.46	29.00	31.98	28.20
Fixed Carbon	60.55	61.69	68.02	59.99
Ash	9.14	9.31	0.00	9.05
Sulfur	0.67	0.68	0.75	0.66
Btu	13,644	13,901	15,328	13,517
			Hardgrove Grindability Index	54

TECHNICAL LABORATORIES, INC.

Martin H. Davis

MARTIN H. DAVIS
President

onyx



P.O. BOX 72787 / 4101 JEROME AVENUE / CHATTANOOGA, TENNESSEE 37407 / 615-867-4210 / TELEX II 810-573-5260

Mr. Al Amos
President
Osceola Paving Company
4441 Wayfarer Place
Orlando, Florida 32807

April 12, 1985

Re: Filter Fabric Dust Collecting System For New 7' x 42' Drum Mix
Plant Located in Kissimmee, Florida

Dear Al:

Confirming our conversation concerning the new 7' x 42' drum mix plant which you plan to install in Kissimmee, Florida; ASTEC will be supplying a model SBH-42 baghouse assembly having 640 4 5/8" diameter x 10' long 14 oz Nomex bags. The air to cloth ratio of this house will be 5.42:1.

Based on the utilization of this baghouse for producing hot mix asphalt when attached to our plant, we will guarantee the baghouse to have an efficiency in excess of 99.9%, while producing both virgin and recycle mixes.

We will also guarantee that the opacity will be less than the 20% required by code. We would expect the opacity to be "0". This guarantee is based on the baghouse being operated in accordance with our instructions and maintained in good operating condition.

If you need additional information, please let me know. With best regards,

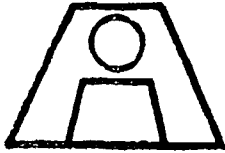
Yours very truly,

ASTEC Industries, Inc.

A handwritten signature in cursive script that reads "J. Don Brock".

J. Don Brock
President

JDB:sms



P.O. BOX 72787 / 4101 JEROME AVENUE / CHATTANOOGA, TENNESSEE 37407 / 615-867-4210 / TELEX II 810-573-5260

SO₂ EMISSIONS SUMMARY-SLOAN CONSTRUCTION COMPANY

SEPTEMBER 8, 1983

Fuel Consumption GPH	Calculated SO ₂ LBS./HR	Actual SO ₂ LBS/HR	Percentage
RUN 1 315	91.49	28.00	30.6%
RUN 2 240	69.71	23.56	33.8%
RUN 3 255	74.06	17.28	23.3%
AVG 270	78.42	22.95	29.3%

Sulfur content of fuel = 1.85%
Type of fuel - #5 fuel oil

$$\text{SO}_2 \text{ content} = 157 \times 1.85 \times \frac{\text{GPH}}{1000} =$$

(for heavy fuel)

CONCLUSION

SO₂ emissions consistently less than 35% of calculated

NOTE

This is for an asphalt plant running 60% recycle material. Even better results can be expected from asphalt plants running 100% virgin material due to more direct contact between gas stream and SO₂ absorbing aggregate.

BEST AVAILABLE COPY



P.O. BOX 72787 / 4101 JEROME AVENUE / CHATTANOOGA, TENNESSEE 37407 / 615-867-4210 / TELEX II 810-573-5260

SO₂ EMISSIONS SUMMARY - APAC, BIRMINGHAM, ALABAMA

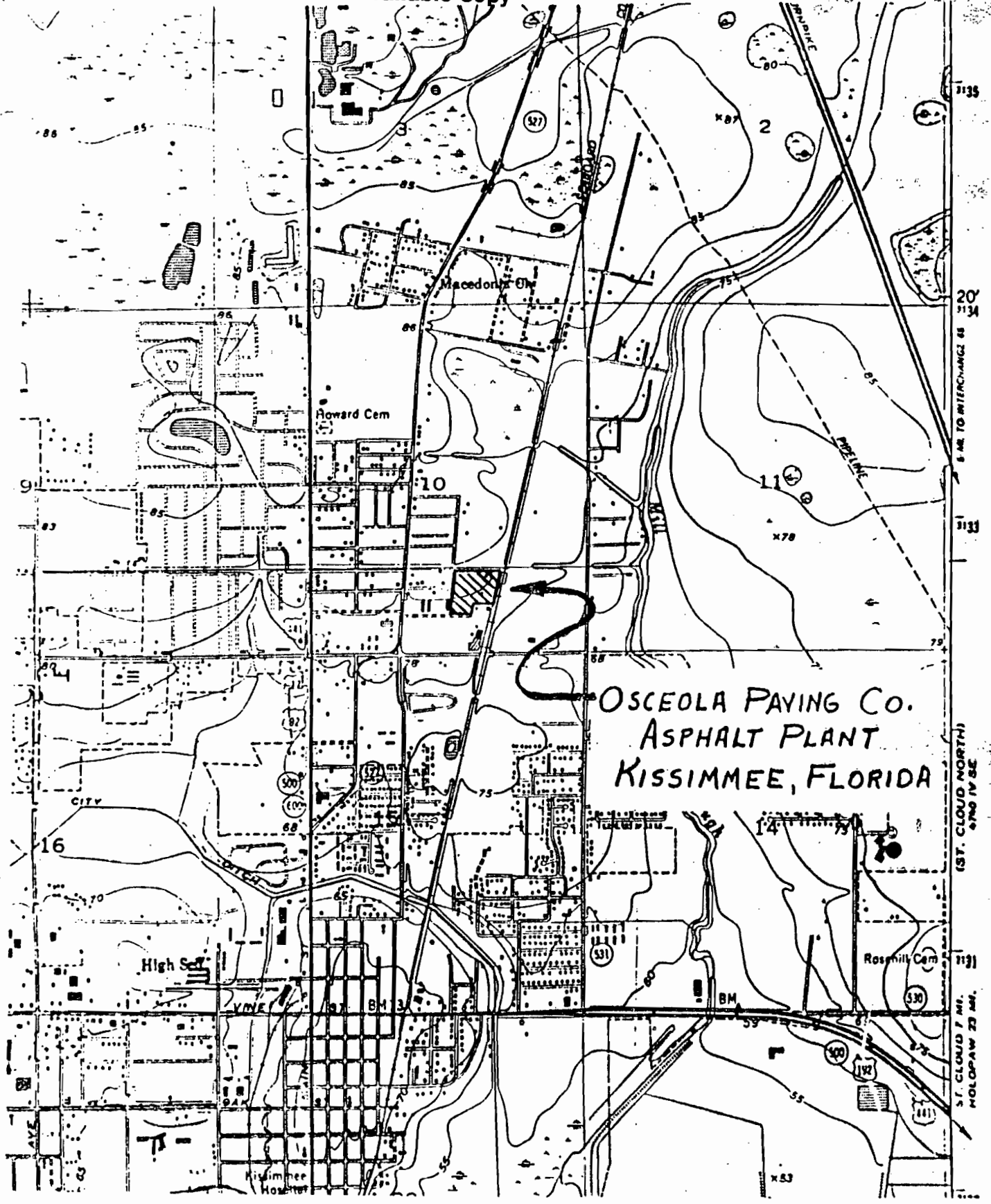
OCTOBER 18, 1984

Fuel Consumption TPH	% Sulfur Content of Coal	Calculated SO ₂ lbs/hr	Actual SO ₂ lbs/hr	Percentage SO ₂ absorbed
RUN 1 1.80	.72	51.8	6.6	87.3
RUN 2 1.77	.74	52.4	4.9	90.6
RUN 3 1.98	.67	53.1	3.7	93.0

PROCESS RATE: 325 TPH

TYPE OF FUEL: COAL

CC: DON BROCK
JIM MAY
KEN PARRIS
TOM STANDARD



OSCEOLA PAVING CO.
 ASPHALT PLANT
 KISSIMMEE, FLORIDA

LOCATION:
 LAT. 28°-19'-17"N, Long. 81°-23'-50"W.
 UTM E. 17-461000 N, 3132677

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
OSCEOLA PAVING COMPANY LOCATION MAP		
DES.	DWN. J.W.S.	680-SK2
SCALE	DATE 3-26-85	DRAWING NO.

BEST AVAILABLE COPY

MACASPHALT a Division of APAC — Florida, Inc.

REMITTANCE ADVICE

30731^L

DATE OR INVOICE NUMBER	AMOUNT	DISCOUNT	NET	C O D E	DATE OR INVOICE NUMBER	AMOUNT	DISCOUNT	NET	C O D E
			\$250.00		Modification of Construction Air Permit 0405				
					TOTALS				

CODES: 1. INVOICE 2. CREDIT MEMO
 3. DEBIT MEMO 4. OTHER

30731

MACASPHALT

a Division of APAC — Florida, Inc.

P. O. BOX 1819

WINTER HAVEN, FLORIDA 33882-1819

DATE
 6/19/98

THE SUM 250 DOLS 00 CTS

NET AMOUNT
 ****\$250.00****

PAY TO THE ORDER OF Florida Department of Environmental Protection

MACASPHALT
 GENERAL ACCOUNT
 AUTHORIZED SIGNATURE
 AUTHORIZED SIGNATURE

BANK OF ASHLAND
 ASHLAND, KY.

"Void after six (6) Months From Date Of Check"

