

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

September 23, 1980

Mr. William B. Lindler, V.P.  
Dickerson, Inc.  
P. O. Box 40949  
Jacksonville, Florida 32203

Dear Mr. Lindler:

Enclosed is Permit Number AC 16-33465, dated September 17, 1980  
to Dickerson, Inc.  
issued pursuant to Section 403, Florida Statutes.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement actions for violation of the conditions and requirements thereof.

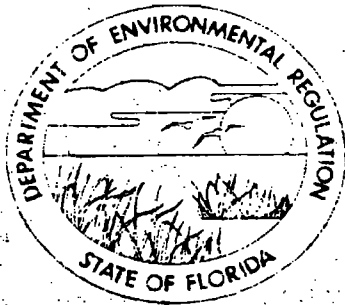
Sincerely,

Steve Smallwood, Chief  
Bureau of Air Quality Management

The Florida Department of Environmental Regulation (DER) has received an application from and intends to issue a Construction Permit to Dickerson, Inc. for the Construction of an Asphalt Batch Plant to be located at U.S. Highway No. 1 and Shad Road, in Duval County, Florida. A determination of Best Available Control Technology was required. Copies of the Application's BACT determination, Technical Evaluation, and Departmental Intent are available for inspection at the following offices: Department of Environmental Regulation, Bureau of Air Quality Management, 2600 Blair Stone Road, Tallahassee, Florida 32301, Duval County Department of Health, Welfare and Bio-Environmental Services, Division of Bio-Env. Serv., 515 West 6th Street, Jacksonville, Florida 32206, Florida Department of Environmental Regulation, St. Johns River Subdistrict, 3426 Bills Road, Jacksonville, Florida 32207. Comments on this action shall be submitted in writing to: John Svec of the Tallahassee Office, within 30 days of this notice.

To appear in Jacksonville Times-Union August 15 or 18, 1980.

31/16/0076



STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL REGULATION

CONSTRUCTION  
PERMIT

NO. AC 16-33465  
DICKERSON, INC.  
DUVAL COUNTY  
ASPHALT BATCH PLANT

DATE OF ISSUANCE

17<sup>TH</sup> SEPTEMBER 1980

Jacob D. Varn  
JACOB D. VARN,  
SECRETARY

DATE OF EXPIRATION

MARCH 31, 1981

Final Determination

Dickerson, Inc.

Jacksonville, Florida

Construction Permit

Application Number

AC 16-33465

Florida Department of Environmental Regulation

Bureau of Air Quality Management

Central Air Permitting

September 17, 1980

Dickerson, Inc. Final Determination

Dickerson, Inc.'s Construction Permit Application for an Asphalt Batch Plant at U.S. Highway No. 1 and Shad Road in Duval County, Florida has been reviewed by the Bureau. Public notice of the Department's Intent to issue was published in the Jacksonville Times - Union on August 15, 1980. Copies of the preliminary determination were available for public inspection at the Duval County Bio-Environmental Services, FDER St. Johns River Subdistrict, and the Bureau of Air Quality Management.

No letters or comments were received as a result of the public comment period. Therefore, the final action of the Department should be to issue the permit as noticed in the public review process.

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

## DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICANT: Dickerson, Inc.  
P. O. Box 40949  
Jacksonville, Florida 32203

PERMIT/CERTIFICATION  
NO. AC 16-33465

COUNTY: Duval

PROJECT: Asphalt Batch Plant

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

For the construction of a 160 ton/hr. asphalt batch plant to be located at U.S. Highway No. 1 and Shad Road in Duval County, Florida.

The UTM coordinates are 445.320E, 333.9660N. Latitude and Longitude coordinates are 30°11'31" N and 81°34'01"W.

Construction shall be in accordance with the attached permit application, plans, and documents except as otherwise noted on page 3, "Specific Conditions".

Attachments are as follows:

1. Application to Construct Air Pollution Sources" DER form 17-1.122(16).

### 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 Section 403.161(1), Florida Statutes. Permittee is hereby placed

PERMIT NO.:

APPLICANT:

on notice that the department will review this permit periodically and may initiate court 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 indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. 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 (b) the period of non-compliance, 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.

4. As provided in subsection 403.087(6), 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.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. 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 Section 403.111, F.S.

7. In the case of an operation permit, 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.

8. 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 therefore 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, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.

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)

SPECIFIC CONDITIONS:

PERMIT NO.: AC 16-33465  
APPLICANT: Dickerson, Inc.

Specific Conditions

1. During the construction phase, quarterly reports on construction progress, commencing 3 months after construction, shall be submitted to the Bureau of Air Quality Management.
2. Maximum Allowable Emission Rates from the plant shall be:  
Particulate Matter - 16 pounds per hour, not to exceed 0.04 grains per dry standard cubic foot.
3. The plant shall not emit gases which exhibit 20 percent opacity or greater.
4. Sulfur content of the fuel used for the dryer will not exceed 0.24 percent.
5. Equipment operating time periods shall not exceed 5 hours/day, 5 days/week and 40 weeks a year. Total equipment operating hours shall not exceed 1,000 hours/year.
6. Production rate for the plant shall not exceed 160 tons/hour.
7. Testing methods used to determine compliance with the standards prescribed in 2. and 3. of the "Specific Conditions" shall be as stated in 40 C.F.R. 60.93.
8. The applicant shall provide the Department with 30 days notice prior to compliance testing. Upon approval of test results and prior to 90 days before expiration of this permit, a complete application for an Operating Permit shall be submitted to the DER, St. Johns River District or its designee. Full operation of the plant may then be conducted in compliance with the terms of this permit until expiration or receipt of an Operating Permit.

Jacob D. Varn  
Jacob D. Varn, Secretary

Expiration Date: March 31, 1981

Issued this 17<sup>TH</sup> day of SEPTEMBER, 1980

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Jacob D. Varn, Secretary, FDER

FROM: Steve Smallwood, Chief, BAQM *BT*

DATE: September 17, 1980

SUBJ: Approval and Signature of Attached Air Construction Permit described below.

**RECEIVED**  
SEP 17 1980

Attached please find one Air Construction Permit for which the applicant is Dickerson, Inc. The proposed construction is an Asphalt Batch Plant to be located at U.S. Highway No. 1 and Shad Road in Duval County, Florida.

Day 90, after which the permit would be issued by default is November 3, 1980.

The Bureau recommends your approval and signature.

SS:dav

→ P4/14

Check Sheet

Company Name: Dickerson Asphalt  
Permit Number: AC 16-33463  
PSD Number:  
County:  
Permit Engineer:  
Others involved:

Application:

- Initial Application
- Incompleteness Letters
- Responses
- Final Application (if applicable)
- Waiver of Department Action
- Department Response

Intent:

- Intent to Issue
- Notice to Public
- Technical Evaluation
- BACT Determination
- Unsigned Permit**

Attachments:

- 
- 
- 
- Correspondence with:
  - EPA
  - Park Services
  - County
  - Other
- Proof of Publication
- Petitions - (Related to extensions, hearings, etc.)

Final Determination:

- Final Determination
- Signed Permit
- BACT Determination

Post Permit Correspondence:

- Extensions
- Amendments/Modifications
- Response from EPA
- Response from County
- Response from Park Services
- Other

DER AIR PERMIT INVENTORY SYSTEM

POINT DATA

NAME: DICKERSON INC SHAD RD BATCH PLANT DIST: 31 CNTY: 16 PLANT:     

&LOC: US 1 - SHAD RD CITY: 1960 ZIP: 32203 OWNR: P TYPE:    # OF PNTS: 01

POINT #: 01 TYPE:    NUMBER OF SCC'S:    NUMBER OF POLLUTANTS EMITTED:   

CONSTRUCT PATS:      / #AC 16-33465 OPERATE PATS:      / #AO   

ISS: 800917 EXP: 8110331 INIT-CONST: 800917 ISSUED: 800917 EXPIRES: 8110331 (YYMMDD)

DESCRIPTION: 160 TPH ASPHALT BATCH PLANT W/ BAGHOUSE (64 spaces maximum)

IPP:    NEW/EXIST: N NSPS:    NESHAP:    ECAP:    COMMON POINTS:   

STACK HT: 33, DIAM: 3.9, TEMP: 232F FLOW: 51195 CFM PLUME:     , BLR-CAP:     

OPERATING DATA: NORMAL CONDS. YOR: 80 DEC-FEB: 25% MAR-MAY: 25% JUN-AUG: 25% SEP-NOV: 25%

PERMITTED SCHEDULE HRS/DAY: 05 DAYS/WK: 5 WKS/YR: 40

OPS REPTD:      (YYMMDD) HRS/DAY:    DAYS/WK:    WKS/YR:   

PROCESS RATES: RAW MATERIAL: 320000 UNITS: a FUEL: 1578 UNITS: a

PRODUCT: 319987 UNITS: a SPACE HEAT:    %

POINT COMMENTS:     

COMPLIANCE: NEDS:    QRC:    YR/MO:      SCHEDULED:      (YYMM) UPDT:      (YYMMDD)

PERMIT:    YOR:    INSPECTED:      (YYMMDD) NEXT-INSPECTION:      (YYMMDD)

INSP-CMTS:     

EDS:    /

DER AIR PERMIT INVENTORY SYSTEM  
PLANT DATA

NAME: DICKERSON INC SHAD RD BATCH PLANT DIST: 31 CNTY: 16 PLANT:       
&LOC: US 1 - SHAD RD CITY: 1960 ZIP: 32203 OWNR: P TYPE: 09 # OF PNTS: 01

CONTACT: W B LINDLER ADDR: P O BOX 40949  
CITY: JACKSONVILLE ST: FL ZIP: 32203

AQCR: 49 SIC: 2951  
LAT: 30:11:31 LON: 81:34:01  
UTM ZONE: 17 EAST: 445.3 NORTH: 3339.6

COMMENTS: \_\_\_\_\_

State of Florida

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: <i>file</i>	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Dickerson, Inc. Jacksonville  
Jacksonville Bio-Environmental Services  
Doug Dutton, DER, St. Johns River Subdistrict

FROM: Steve Smallwood, Chief  
Bureau of Air Quality Management

DATE: August 15, 1980

SUBJ: Proposed Department Action on Dickerson, Inc.  
Application to Construct Asphalt Batch Plant at U.S.  
Highway No. 1 and Shad Road in Duval County, Florida.

Attached is one copy each of BACT, Preliminary Determination and Technical Evaluation, and the proposed Construction Permit for Dickerson, Inc. of Jacksonville, Florida.

Pursuant to 17-2.091 and 40 CFR 51.18, this information is to be maintained on file for public review for 30 days.

Comments are to be submitted to the Bureau of Air Quality Management.

SS:caa

INTEROFFICE MEMORANDUM

For Routing To District Offices  
And/Or To Other Than The Addressee

To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Jacob D. Varn

FROM: Steve Smallwood

DATE: August 14, 1980

SUBJ: BACT Determination for Asphalt Batch Plant - Dickerson Inc. of Jacksonville

Facility: The proposed plant will manufacture asphaltic concrete at a rate of 160 tons per hour. The significant sources of air pollution are the dryer and other aggregate handling equipment which could potentially emit 3,600 tons/year of particulate matter without emission controls. The plant will be located within the Jacksonville nonattainment area of influence for particulate matter.

BACT Requested by Applicant:

Particulates: 0.04 grains/dscf

SO<sub>2</sub>: 0.24% sulfur fuel oil

Date of Receipt of a Complete BACT Application:

August 5, 1980

Date of Publication in the Florida Administrative Weekly:

August 15, 1980

EPA's New Source Performance Standards for Asphalt Concrete Plants:

Particulate Emission Limitation: No greater than 0.04 grains per dry standard cubic foot

Opacity: Less than 20 per cent

BACT Determination by Florida Department of Environmental Regulation:

Particulates: No greater than 0.04 grains/dscf

Opacity: Less than 20 per cent

Test Methods: As given in Subpart I, 40 CFR 60.93

Jacob D. Varn  
August 14, 1980  
Page Two

Justification of DER Determination:

Since potential particulate emissions will be over 250 tons per year, but allowable particulates emitted will be under 50 tons per year, the applicable limitation will be the Federal NSPS. This is consistent with the Florida Nonattainment Rule (17-2.17 F.A.C.) and also with previous FDER determinations for asphalt concrete plants. A more stringent standard is not justified, since there have been no significant improvements technically in controlling particulates for this type of facility.

There will be no sulfur dioxide BACT emission limitation since the company proposes to use 0.24% sulfur No. 2 Diesel Fuel to fire the dryer. The resulting NO<sub>x</sub> emissions will also not be great enough for BACT consideration.

Details of the Analysis May be Obtained by Contacting:

John Svec, Engineer  
Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Twin Towers Office Building  
Tallahassee, Florida 32301

Recommendations from: Bureau of Air Quality Management

By: Steve Smallwood  
for Steve Smallwood

Date: August 15, 1980

Approved by: Jacob D. Varn  
Jacob D. Varn

Date: August 15, 1980

Technical Evaluation  
and  
Preliminary Determination

Dickerson, Inc.  
Jacksonville, Florida

Construction Permit  
Application Number:

AC 16-33465

Florida Department of Environmental Regulation

Bureau of Air Quality Management

Central Air Permitting

August 12, 1980



I. PROPOSED DEPARTMENT ACTION:

The Department intends to issue the requested permit to Dickerson, Inc. for the construction of an asphalt batch plant to be located at U.S. Highway No. 1 and Shad Road in Duval County, Florida, subject to public comment received as a result of this notice.

Any person wishing to file comments on this proposed action may do so by submitting such comments in writing to:

John Svec  
Florida Department of Environmental  
Regulation  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Any comments received within thirty days after publication of this notice will be considered and noted in the Department's final determination.

Any person whose substantial interest would be affected by the issuance or denial of this permit may request an administrative hearing by filing a petition for hearing as set forth in Section 28-5.15, F.A.C. (copy attached). Such petition must be filed within 14 days of the date of this notice with:

Mary Clark  
Florida Department of Environmental  
Regulation  
Office of General Counsel  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

II. SUMMARY OF EMISSIONS AND AIR QUALITY ANALYSIS:

a. The proposed plant is to be located in the area of influence of the Jacksonville Nonattainment area for particulates.

b. The significant sources of air pollution will be the rotary dryer and, to a lesser degree, the other dry aggregate processing and handling equipment which could in total potentially emit 3,600 tons/year of particulates.

No. 2 Diesel Fuel with 0.24% sulfur content is the proposed fuel to be used in the drum, resulting in negligible combustion pollutants including sulfur dioxide.

III. SYNOPSIS OF APPLICATION:

a. Name and Address of Applicant:

Dickerson, Inc.  
P. O. Box 40949  
Jacksonville, Florida 32203

b. Description of Project and Controls:

The applicant will be constructing an asphalt batch plant which will produce roughly 160 tons per hour of asphalt concrete. Particulate emissions will be controlled by a baghouse collector.

IV. RULE APPLICABILITY:

The proposed plant is to be located within the area of influence of the Jacksonville Particulate Nonattainment Area, and in the Duval County Nonattainment Area for ozone. It is therefore subject to the nonattainment rule limitations for particulate emissions and hydrocarbon emissions in 17-2.17 F.A.C.). Since potential emissions of particulates are much greater than 250 tons/year, the plant is also subject to PSD review under 17-2.04, and BACT under 17-2.03.

V. FINDINGS:

1. Based on EPA emission factors published in AP-42 (Tables 1.3-1 and 8.1-1), uncontrolled emissions for the plant resulting from process and handling equipment, as well as combustion gases from the dryer, will be as follows:

<u>Pollutant</u>	<u>Uncontrolled emissions, lb./hr. (ton/yr.)</u>
Particulates	7,200 (3,600)
SO <sub>2</sub>	7.5 (3.8)
NO <sub>2</sub>	4.8 (2.4)
CO	1.1 (0.6)
Hydrocarbons	0.2 (0.1)

These emission figures are based on 1,000 operating hours per year, using .24 percent sulfur Diesel fuel for the dryer, and a production rate of 160 tons per hour, as given in the application.

2. The Federal New Source Performance Standard for this type facility is a maximum of 0.04 grains particulate per dry standard cubic foot, and less than 20 percent opacity. The plant has been determined exempt from Nonattainment limits according to 17-2.17(1)(c)2.c.

3. The maximum allowable emission limits, based on NSPS and test data from an identical unit operated by the applicant, are as follows:

Particulates: 16 lb./hr. not to exceed 0.04 grains/DSCF

Opacity: Less than 20 percent

4. A modeling analysis of PSD and Nonattainment Area impact has been deemed unnecessary, given the minimal emission rate and the operating conditions.

5. Construction should commence and be completed within a reasonable time, based on projections included in the application.

6. Construction should reasonably conform to the plans submitted.

7. Testing methods used to determine compliance with the standards prescribed in the "Specific Conditions" of the permit shall be as given in 40 C.F.R. 60.93.

VI. PROPOSED ALLOWABLE EMISSIONS AND PERMIT CONDITIONS:

See Draft Permit

Attachment: Rule 28-5



STATE OF FLORIDA  
**DEPARTMENT OF ENVIRONMENTAL REGULATION**

APPLICANT: Dickerson, Inc.  
P. O. Box 40949  
Jacksonville, Florida 32203

PERMIT/CERTIFICATION  
NO. AC 16-33465

COUNTY: Duval

PROJECT: Asphalt Batch Plant

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

For the construction of a 160 ton/hr. asphalt batch plant to be located at U.S. Highway No. 1 and Shad Road in Duval County, Florida.

The UTM coordinates are 445.320E, 333.9660N. Latitude and Longitude coordinates are 30° 11' 31" N and 81° 34' 01" W.

Construction shall be in accordance with the attached permit application, plans, and documents except as otherwise noted on page 3, "Specific Conditions".

Attachments are as follows:

1. Application to Construct Air Pollution Sources" DER form 17-1.122(16).

**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 Section 403.161(1), Florida Statutes. Permittee is hereby placed

PERMIT NO.:

APPLICANT:

on notice that the department will review this permit periodically and may initiate court 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 indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. 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 (b) the period of non-compliance, 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.

4. As provided in subsection 403.087(6), 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.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. 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 Section 403.111, F.S.

7. In the case of an operation permit, 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.

8. 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 therefore 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, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.

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)

SPECIFIC CONDITIONS:

PERMIT NO.: AC 16-33465  
APPLICANT: Dickerson, Inc.

Specific Conditions

1. During the construction phase, quarterly reports on construction progress, commencing 3 months after construction, shall be submitted to the Bureau of Air Quality Management.
2. Maximum Allowable Emission Rates from the plant shall be:  
Particulate Matter - 16 pounds per hour, not to exceed 0.04 grains per dry standard cubic foot.
3. The plant shall not emit gases which exhibit 20 percent opacity or greater.
4. Sulfur content of the fuel used for the dryer will not exceed 0.24 percent.
5. Equipment operating time periods shall not exceed 5 hours/day, 5 days/week and 40 weeks a year. Total equipment operating hours shall not exceed 1,000 hours/year.
6. Production rate for the plant shall not exceed 160 tons/hour.
7. Testing methods used to determine compliance with the standards prescribed in 2. and 3. of the "Specific Conditions" shall be as stated in 40 C.F.R. 60.93.
8. The applicant shall provide the Department with 30 days notice prior to compliance testing. Upon approval of test results and prior to 90 days before expiration of this permit, a complete application for an Operating Permit shall be submitted to the DER, St. Johns River District or its designee. Full operation of the plant may then be conducted in compliance with the terms of this permit until expiration or receipt of an Operating Permit.

Expiration Date: February 28, 1981

Issued this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000000033465 COE# DER PROCESSOR:SVEC DER OFFICE:TLH  
FILE NAME:DICKERSON, INC. DATE FIRST REC: 08/04/80 APPLICATION TYPE:AC  
APPL NAME:LINDLER, WILLIAM B., V.P. APPL PHONE:(904)786-1020 PROJECT COUNTY:16  
ADDR:P.O. BOX 40949 CITY:JACKSONVILLE ST:FLZIP:32203  
AGNT NAME:POTTER, ALAN W., P.E. AGNT PHONE:(904)725-4522  
ADDR:6957 LILLIAN RD. CITY:JACKSONVILLE ST:FLZIP:32211

ADDITIONAL INFO REQ: / / / / / / REC: / / / / / /  
APPL COMPLETE DATE: / / COMMENTS NEC:Y DATE REQ: / / DATE REC: / /  
LETTER OF INTENT NEC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / / /  
HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /  
HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N

THIS RECORD HAS BEEN SUCESSFULLY ADDED 08/06/80 08:57:24

FEE PD DATE#1:08/04/80 \$0020 RECEIPT#00033543 REFUND DATE:08/04/80REFUND \$0000  
FEE PD DATE#2: / / \$ RECEIPT# REFUND DATE: / / REFUND \$  
APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:AC DATE:08/04/80  
REMARKS:REFUNDS DATE ENTRY INVALID, COULD NOT ERASE, WILL NOT RETYPE! ASPHALT  
BATCH PLANT. LAT./LON. = 30DEG. 11MIN. 31SEC. N. / 81DEG. 34MIN. 01SEC. W.  
UTM = 445.320 E. / 3339.660 N. STANDARD HAVEN'S INC., ALPHA/MARKIII. LOCATED  
SHAD RD. @ U

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 33543

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from A.W. POTTER (FOR DICKERSON, INC.) Date 5 AUGUST, 1980

Address 6957 LILLIAN RD., JACKSONVILLE, FL 32211 Dollars \$ 20<sup>00</sup>

Applicant Name & Address W.E. LINDLER, V.P. DICKERSON, INC., P.O. 40949, JACKSONVILLE, FL 32203

Source of Revenue \_\_\_\_\_

Revenue Code 0101 Application Number AC 16-33465

By M.G. + [signature]



ALAN W. POTTER  
CONSULTING ENGINEER

6957 LILLIAN ROAD

JACKSONVILLE, FLORIDA 32211

PHONE 904/725-4522

August 1, 1980

Mr. Edmund Balducci  
Asst. Pollution Control Engineer  
City of Jacksonville  
Air and Water Pollution Control  
515 West Sixth Street  
Jacksonville, Florida 32206

Re: Dickerson, Inc.  
New Asphalt Manufacturing Plant  
at Shad Road & U.S. Hwy. No. 1  
Jacksonville, Florida



Dear Mr. Balducci:

Please find enclosed, five (5) sets of Application to Construct, flow diagrams and check in the amount of \$20.00 on referenced.

Dickerson, Inc., plans to construct a new Asphalt Manufacturing Plant on U.S. Highway No. 1 approximately 0.8 miles south of the intersection with Sunbeam Road, Jacksonville, Florida.

The new plant is equipped with a Standard Haven's, Inc., Alpha/Mark III, Size 30, and incorporates the latest technology of the industry.

Air emissions control utilizes the Bag House principal. All captured dust is scavanged, then introduced into the liquid asphalt for use as filler material.

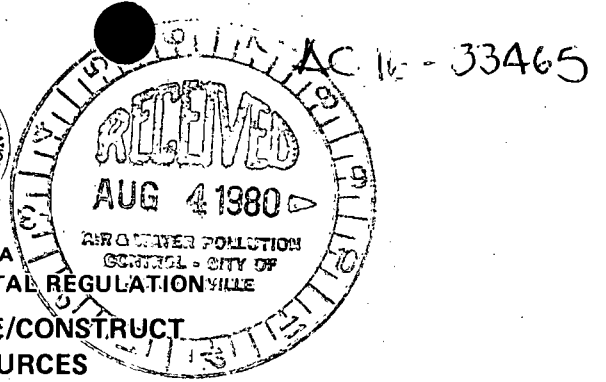
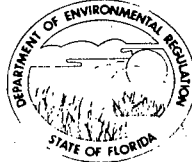
Your review and approval of this request for permit to construct is requested.

Sincerely,

  
Howard A. Enniss

HAE/bod

cc: Dickerson, Inc.



STATE OF FLORIDA  
 DEPARTMENT OF ENVIRONMENTAL REGULATION  
 APPLICATION TO ~~OPERATE~~ CONSTRUCT  
 AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution  New<sup>1</sup>  Existing<sup>1</sup>  
 APPLICATION TYPE:  Construction  Operation  Modification  
 COMPANY NAME: Dickerson, Inc. COUNTY: Duval  
 Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Asphalt Manufacturing Plant with Baghouse  
 SOURCE LOCATION: Street U.S. Hwy. No. 1 & Shad Road City Jacksonville  
 UTM: East 45320 North 3339660  
 Latitude 30° 11' 31" N Longitude 81° 03' 01" W  
 APPLICANT NAME AND TITLE: William B. Lindler, Vice President  
 APPLICANT ADDRESS: P.O. Box 40949, Jacksonville, Florida 32203

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Dickerson, Inc.

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. I 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.

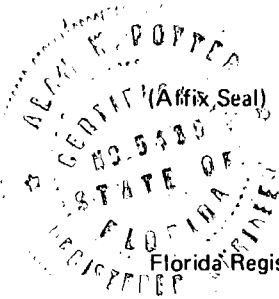
\*Attach letter of authorization

Signed: [Signature]  
William B. Lindler, Vice President  
 Name and Title (Please Type)  
 Date: Aug. 1, 1980 Telephone No. (904) 786-1020

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 the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: [Signature]  
Alan W. Potter, P.E.  
 Name (Please Type)  
Alan W. Potter, Consulting Engineer  
 Company Name (Please Type)  
6957 Lillian Road, Jacksonville, FL 32211  
 Mailing Address (Please Type)  
 Date: Aug. 1, 1980 Telephone No. (904) 725-4522



Florida Registration No. 5438

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

**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.

Construct New Asphalt Manufacturing Plant with Bag House. Proposed Plant  
will be equipped with Dry-Type Cyclone Dust Collector and Bag House. When  
in operation, Plant will be in full compliance with all Federal and State  
Regulations.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction September, 1980 Completion of Construction November, 1980

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.)

Estimated cost of Bag House and installation: \$ 42,000

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

Application Dated December 10, 1979, withdrawn by letter of July 22, 1980.

Proposed plant will be CMI with Standard Haven's, Inc. Alpha/Mark III,  
Size 30 Bag House

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code?  Yes  No

F. Normal equipment operating time: hrs/day 5 ; days/wk 5 ; wks/yr 40 ; if power plant, hrs/yr \_\_\_\_\_ ;  
 if seasonal, describe: \_\_\_\_\_

G. 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?  | <u>No</u>  |
| a. If yes, has "offset" been applied?   | <u>N/A</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied?  | <u>N/A</u> |
| c. If yes, list non-attainment pollutants.  |            |
| <hr/>   |            |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.  | <u>Yes</u> |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u>  |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?  | <u>Yes</u> |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?                                       | <u>No</u>  |

Attach all supportive information related to any answer of "Yes". Attach any justification 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 Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Aggregate	Particulate	0.004	298,000	Cold Feed Bins (1)
Liquid Asphalt	None	None	22,000	Asphalt Storage (2)

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

1. Total Process Input Rate (lbs/hr): 320,000

2. Product Weight (lbs/hr): 319,987

**C. Airborne Contaminants Emitted:**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	13.22	6.61*	NSPS 0.04 DSCF	38.99	7200**	3600	(1)

**D. Control Devices: (See Section V, Item 4)**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )
Standard Haven's, Inc.	Particulate	99.82	500 or less	see ***
Alpha/Mark III, Size 30				
Bag House				

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

\* Based on 40 weeks/year

\*\* Based on 45 lbs/Ton (AP-42)

\*\*\*  $\frac{7200 - 13.22}{7200} \times 100 = 99.82\%$

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
No. 2 Diesel Fuel	1434 Lb./Hr.	1578 Lb./Hr.	28.0

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: 0.24 Percent Ash: 0.0%  
 Density: 7.171 lbs/gal Typical Percent Nitrogen: -  
 Heat Capacity: 19,520 BTU/lb 140,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

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

Stack Height: 32.5 ft. Stack Diameter: (1) Stack 3.50 X 3.50 ft.  
 Gas Flow Rate: 51,195 (Avg.) ACFM Gas Exit Temperature: 232 (Avg.) °F.  
 Water Vapor Content: 16.7 (Avg.) % Velocity: 70 (Avg.) FPS

Not: Emission Stack Geometry and Flow Characteristics derived from Dickerson Plant No. 19. See TSI Report dated March 18, 1980.

**SECTION IV: INCINERATOR INFORMATION**

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	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: \_\_\_\_\_

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Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

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### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?  
 Yes    No

Contaminant	Rate or Concentration
Particulate Matter	0.04 grams/ scf, Dry

- 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
Particulate Matter	0.04 Grains/DSCF*
SO <sub>2</sub>	0.24% Sulfer fuel oil

- D. Describe the existing control and treatment technology (if any). New source - proposed control

- Control Device/System: Bag House
- Operating Principles: Particulates trapped in fabric, jet cleaned, then mixed w/asphalt.
- Efficiency: \* 99.82 (see page 3)
- Capital Costs: \$ 42,000
- Useful Life: 10 years (Avg.)
- Operating Costs: \$ 2,500.
- Energy: 18,650 kwh/Yr.
- Maintenance Cost: \$ 6,000
- Emissions: Particulate and SO<sub>2</sub>

Contaminant	Rate or Concentration
Particulate & SO <sub>2</sub>	Less than 0.04 grains/DSCF

\*Explain method of determining D 3 above.

\* DER Determined BACT for Asphalt Plants to be: Bag House with 0.04 grains/DSCF. 0.5% sulfur fuel oil

10. Stack Parameters

- a. Height: 32.5 ft.
- b. Diameter: 3.5 X 3.5 ft.
- c. Flow Rate: 51,195 ACFM
- d. Temperature: 232 °F
- e. Velocity: 70 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power – KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.



- 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 \*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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 \*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

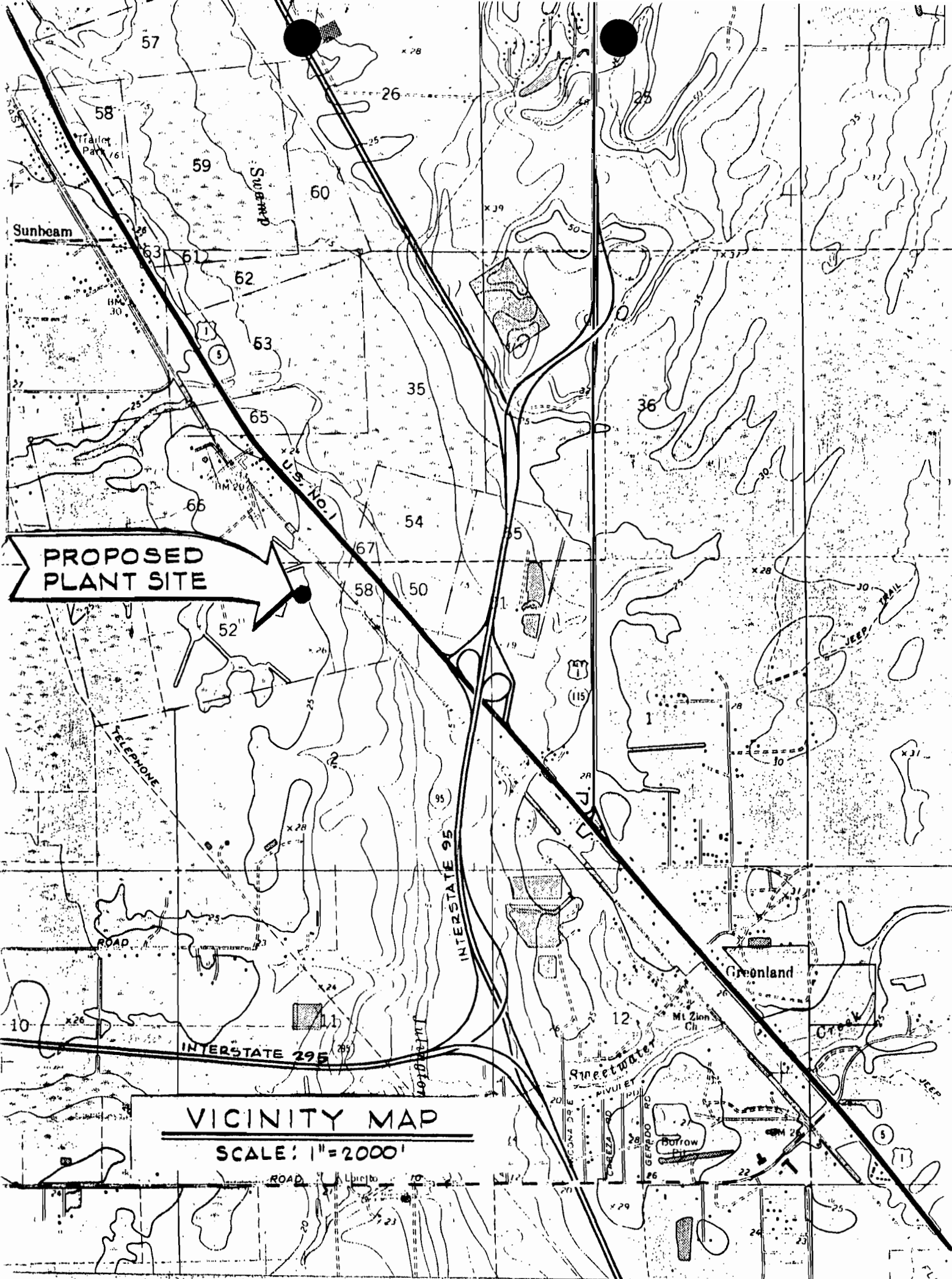
Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

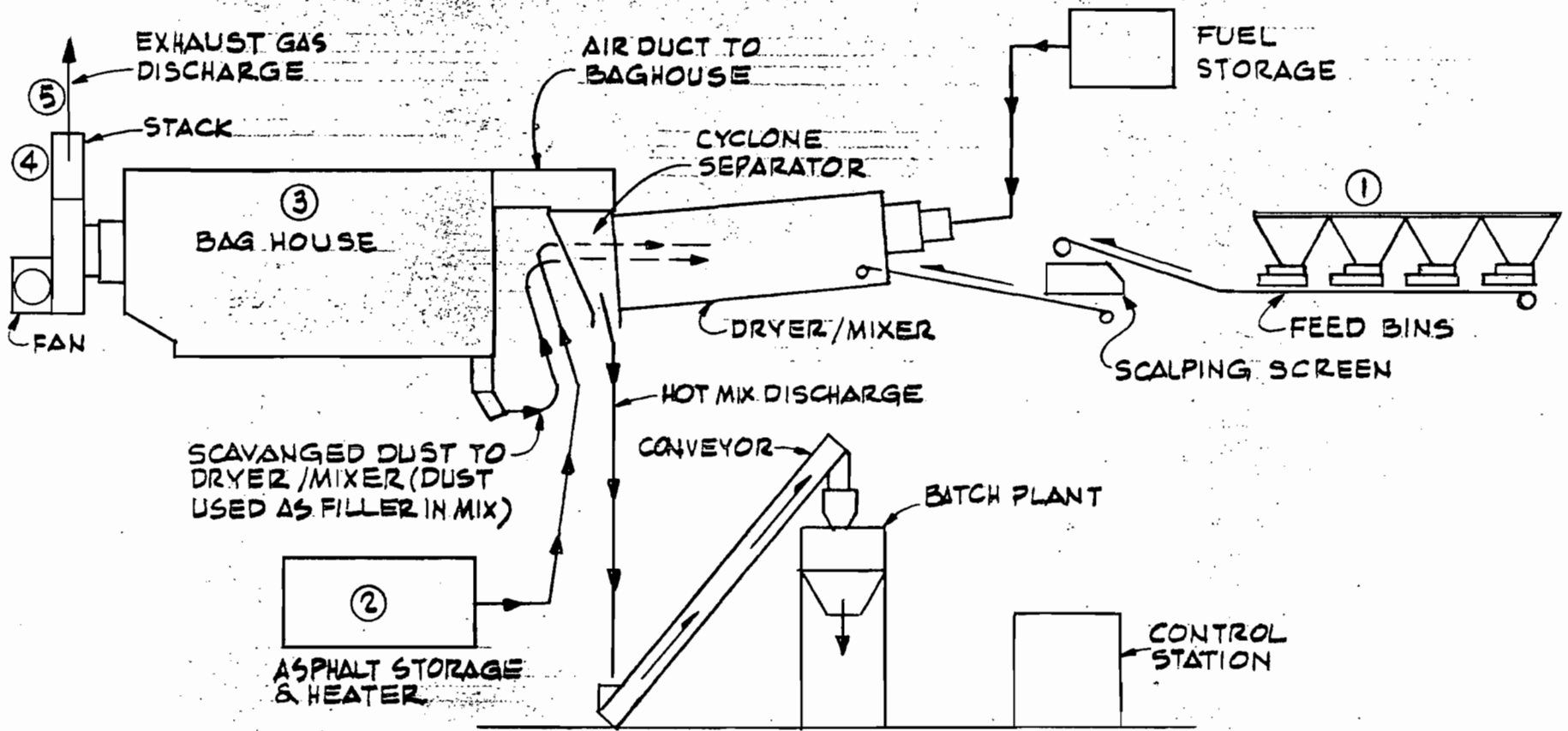




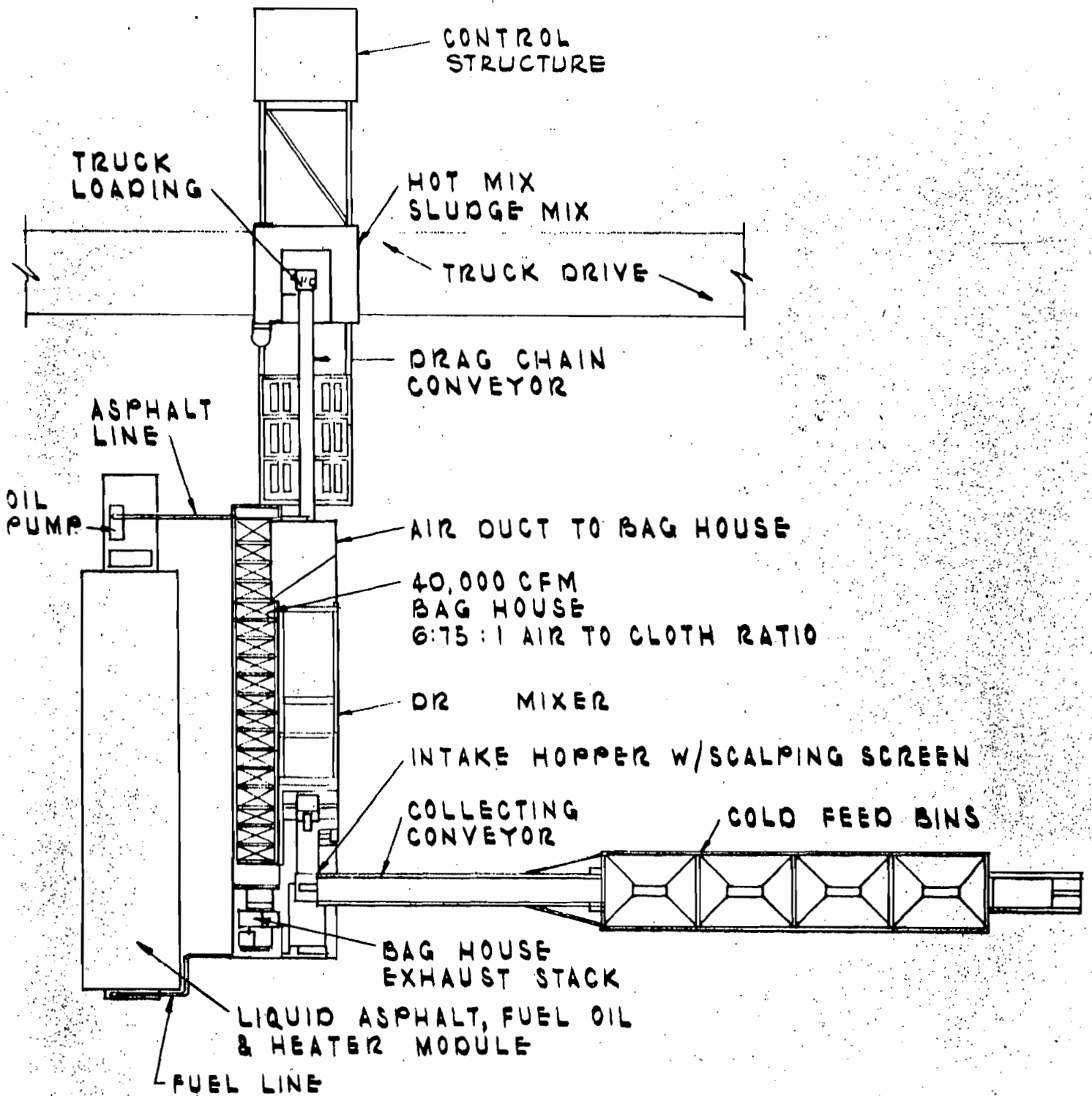
**PROPOSED  
PLANT SITE**

**VICINITY MAP**

**SCALE: 1" = 2000'**



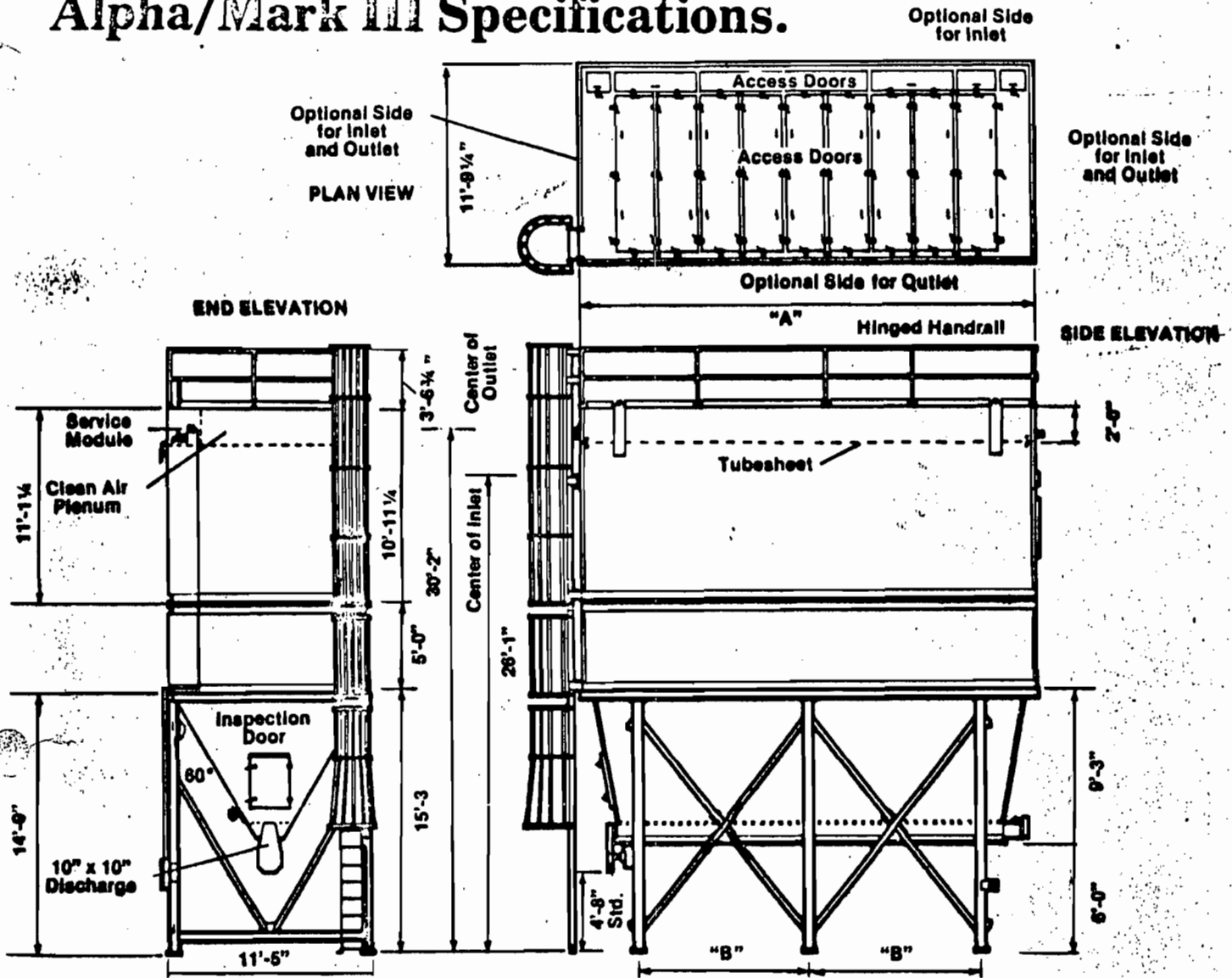
SCHMATIC FLOW DIAGRAM



## PLANT PLOT PLAN

SCALE:  $\frac{1}{16}'' = 1'-0''$

# Alpha/Mark III Specifications.



SIZE NO.	NO. OF BAGS	CLOTH AR. SQ. FT.	NO. OF VALVES	"A"	"B"	COMP. AIR*	
						MAX.	NORM.
12	168	3,852	12	14'-0	1 at 10' ea.	48	27
15	210	4,815	15	16'-6	1 at 10' ea.	60	34
18	252	5,778	18	19'-0	1 at 10' ea.	70	40
21	294	6,741	21	21'-6	2 at 10' ea.	83	47
24	336	7,704	24	24'-0	2 at 10' ea.	96	55
27	378	8,667	27	26'-6	2 at 10' ea.	117	61
30	420	9,630	30	29'-0	2 at 10' ea.	117	68
33	462	10,593	33	31'-6	3 at 10' ea.	130	74
36	504	11,556	36	34'-0	3 at 10' ea.	143	82
39	546	12,519	39	36'-6	3 at 10' ea.	155	86
42	588	13,482	42	39'-0	3 at 10' ea.	165	94
45	630	14,445	45	41'-6	4 at 10' ea.	177	101
48	672	15,408	48	44'-0	4 at 10' ea.	187	107
51	714	16,371	51	46'-6	4 at 10' ea.	200	114
54	756	17,334	54	49'-0	4 at 10' ea.	212	121
57	798	18,297	57	51'-6	5 at 10' ea.	226	129
60	840	19,260	60	54'-0	5 at 10' ea.	235	135
63	882	20,223	63	56'-6	5 at 10' ea.	246	140
66	924	21,186	66	59'-0	5 at 10' ea.	259	148
69	966	22,149	69	61'-6	6 at 10' ea.	271	154
72	1,008	23,112	72	64'-0	6 at 10' ea.	282	161

\* = SCFM at 110 PSIG

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



July 25, 1980

Mr. Mark Hodges  
DER/BAQM  
Twin Towers office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301



RE: Dickerson, Inc. - Shad Road Proposed Construction

Dear Mr. Hodges:

Please withdraw the captioned permit application from processing as per the applicant's enclosed July 22, 1980, letter.

Very truly yours,

E. P. Balducci  
Assistant Air Pollution Engineer

EPB/sg

enclosure





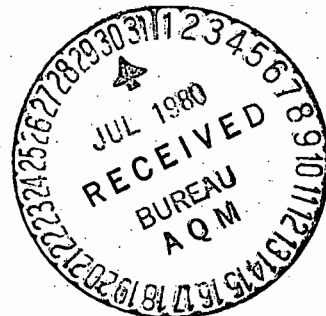
ALAN W. POTTER  
CONSULTING ENGINEER

6957 LILLIAN ROAD

JACKSONVILLE, FLORIDA 32211

PHONE 904/725-4522

July 22, 1980



Mr. Edmund Balducci  
Asst. Pollution Control Engineer  
City of Jacksonville  
Air & Water Pollution Control  
515 West Sixth Street  
Jacksonville, Florida 32206

Re: Dickerson, Inc.  
Shad Road Asphalt Manufacturing Plant  
Jacksonville, Florida

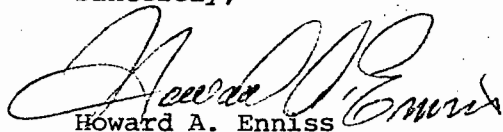
Dear Mr. Balducci:

Please be advised, Dickerson, Inc., wishes to withdraw Application to Construct Air Pollution Sources on referenced, dated December 10, 1979.

The make and model plant as submitted in the original application, is unavailable at this time.

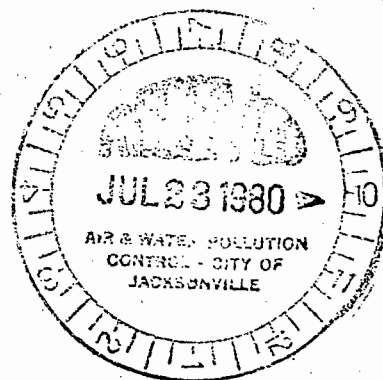
Upon securing an Asphalt Plant of known make and model, Dickerson, Inc. will submit a new application.

Sincerely,

  
Howard A. Enniss

HAE/bod

cc: Dickerson, Inc.



*Dickerson, Incorporated*  
*General Contractors*  
*Monroe, N. C. 28110*

(H)  
A Bayly  
Kapp  
Balducci 223

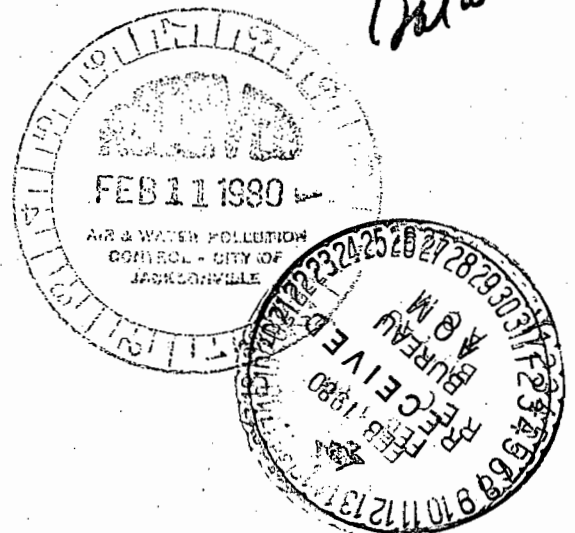
February 7, 1980

Air Pollution Control  
515 West Sixth Street  
Jacksonville, Florida 32206

Attention Mr. Ed Balducci

Dear Mr. Balducci:

As per our conversation, I am enclosing a copy of the curve sent to us by Standard Havens, Inc. The curve was determined by them on an in-house test. They requested that this information be kept in the strictest of confidence. If you need any more information, please call me at 704/289-3111, extension 363, anytime.



Sincerely,

DICKERSON, INC.

David J. Gordon, Jr.  
Assistant to Executive Vice President  
Asphalt Division

DJGJr:11  
Enclosure

**CONFIDENTIAL**  
Proprietary Information

Project: SH DESIGN ENGRG TECHNICAL MANUAL

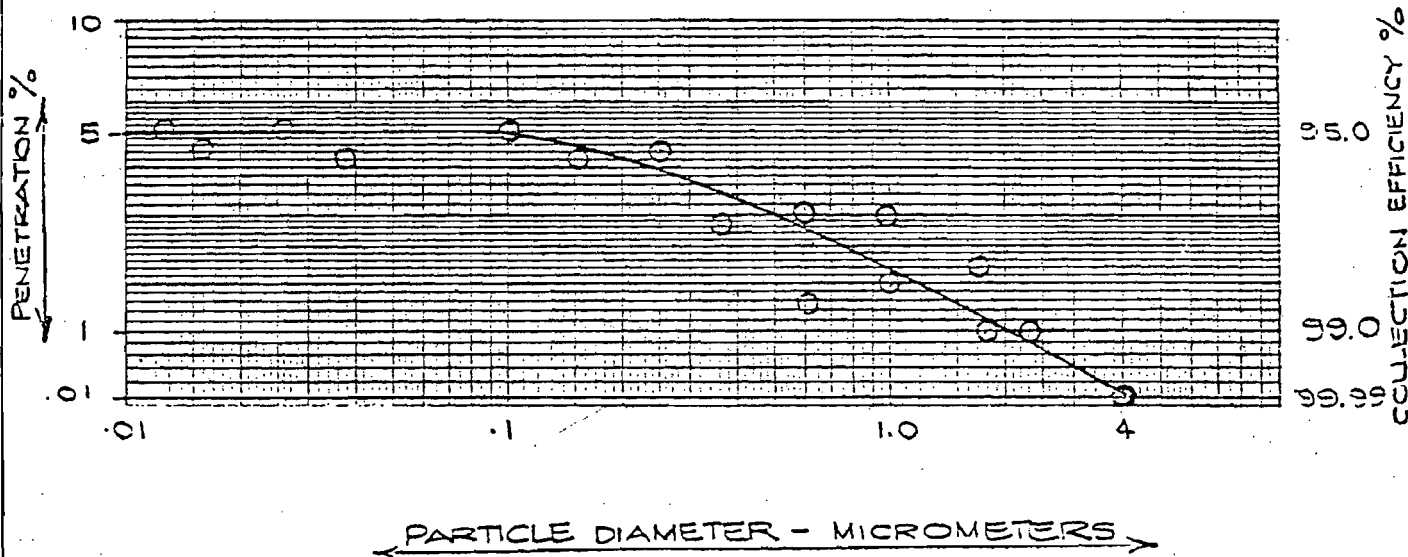
Project No.: PA 2100

Prep. By: SR

Subj.: FRACTIONAL EFF CHART

Date: 7/15/75

THIS MATL IS INTENDED FOR IN-HOUSE USE ONLY



PARTICLE DIAMETER - MICROMETERS

(FELT FILTER MEDIA - SPHERICAL PART.)

EXTRAPOLATED FRACTIONAL EFFICIENCY OF SH FABRIC FILTERS (BAGHOUSE)

NOTE: MANY FACTORS CAN INFLUENCE COLLECTION EFFICIENCIES; SUCH AS AERODYNAMIC PARTICLE SHAPE, ETC.

*Dickerson, Incorporated*  
*General Contractors*  
*Jacksonville, Florida*  
32203



REMOVE FROM SYSTEM.

January 31, 1980

Mr. Stephen Smallwood  
Department of Environmental Regulation  
Twin Tower Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32301

Re: Drum Mix Asphalt Batch Plant  
Duval County

Dear Sir:

I have recently been given a copy of your letter of August 24, 1979 to this writer. This letter apparently was lost in our files. After several telephone conversations with Mr. E. P. Balducci regarding the missing letter I visited his office and was given a copy.

The drum mix asphalt plant made reference to has since been moved to North Carolina. We are presently waiting for a construction permit to construct a Cedar Rapids "Batch Type" asphalt plant in Duval County instead of the drum mix plant which application was originally made for.

I trust the fact that the drum mix plant has moved to North Carolina will allow you to close your file regarding the questions you raised in your letter of August 24, 1979.

Please accept our apology for the inconvenience you may have incurred because of this late reply.

Yours truly,

DICKERSON, INCORPORATED

*W. R. Lindler*  
W. R. Lindler  
Vice President

WRL:sg

cc: Mr. E. P. Balducci

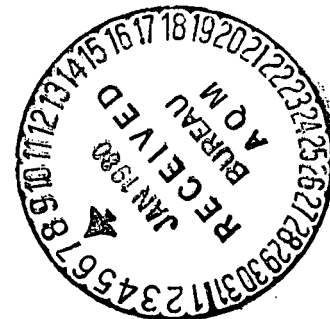
THE WICKSHER DRIVE BATCH PLANT

AC22392

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



January 3, 1980



Mr. Steve Smallwood  
Acting Chief  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Re: Dickerson, Inc. Application for a Construction Permit.

Dear Mr. Smallwood:

We are currently processing the enclosed permit application according to our local program agreement with the State of Florida.. The potential emissions data submitted in the application is incorrect. Using the data submitted under actual emissions along with the baghouse efficiency given, the potential emissions should equal 251 T/yr. A review of AP-42 shows an uncontrolled emissions factor of 45 lb/T which puts this plant's potential emissions at 6750 lb/hr. AP-40 gives a similar documentation. Since the potential emissions are greater than 250 T/yr, a BACT determination is necessary and we are hereby requesting such.

Additional information has been requested from Dickerson, (see enclosure) which will be forwarded to you upon receipt by this office.

Very truly yours,

A handwritten signature in cursive script that reads "E. P. Balducci".

E. P. Balducci  
Assistant Engineer

EPB/kdw

Enclosure



DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



January 3, 1980

Mr. William B. Lindler  
Vice-President  
Dickerson, Inc.  
P.O. Box 40949  
Jacksonville, Florida 32203

Re: Construction Permit Application, Proposed Shad Road Asphalt Plant.

Dear Mr. Lindler:

We have reviewed the captioned application and have determined that it is incomplete. We are therefore requesting that you submit the following additional, necessary information. Your permit application will be held in abeyance pending its receipt.

1. Section III.C. Please document your calculations for determining the potential emissions as the figures submitted appear to be incorrect. Our calculations show that the potential emissions exceed 250 T/yr and that Best Available Control Technology (BACT) must, therefore, be determined and applied as per Chapter 17-2, Florida Administrative Code. Also, please note that New Source Performance Standards apply as the Allowed Emission Rate and not Process Weight, therefore, please resubmit this information using 0.04 grains/DSCF.
2. Section III.D. Submit manufacturer's specifications for control equipment efficiency with respect to particle sizes less than 500 microns.
3. Since this source will be a Major Emitting Facility (Chapter 17-2.02(bb)), BACT does apply. Section VI.B, C, E, and F must, therefore, be completely filled out for TSP and SO<sub>2</sub>.
4. Section VII Fill out completely for PSD determination.
5. Submit a computer model showing;
  - a. the maximum Particulate impact in the Non-Attainment Area, and,
  - b. the maximum impact anywhere for determining PSD increment consumption.



Mr. William B. Lindler  
January 3, 1980  
Page 2

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Please submit the above as soon as possible, as your permit cannot be processed until this information has been received.

If you have questions, please call me at 633-3033.

Very truly yours,

E. P. Balducci  
Assistant Engineer

EPB/kdw





STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Dickerson, Inc. COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Asphalt Manufacturing Plant with Baghouse

SOURCE LOCATION: Street U.S. Hwy. No. 1 & Shad Road City Jacksonville

UTM: East 45320 North 3339660

Latitude 30° 11' 31" N Longitude 81° 34' 01" W

APPLICANT NAME AND TITLE: William B. Lindler, Vice President

APPLICANT ADDRESS: P.O. Box 40949, Jacksonville, Florida 32203

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative<sup>1</sup> of Dickerson, Inc.

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. I 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: William B. Lindler

William B. Lindler, Vice President  
Name and Title (Please Type)

Date: Dec. 6, 1979 Telephone No. (904) 751-3820

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 the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: Alan W. Potter

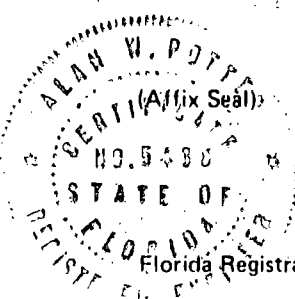
Alan W. Potter, P.E.  
Name (Please Type)

Alan W. Potter, Consulting Engineer  
Company Name (Please Type)

6957 Lillian Rd., Jacksonville, FL 32211  
Mailing Address (Please Type)

Date: Dec. 7, 1979 Telephone No. (904) 725-4522

Florida Registration No. 5438



<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

**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.

New Asphalt Manufacturing Plant with Bag House. Proposed plant to be  
equipped with dry type cyclone and Bag House. Upon completion of construction/  
operation plant will be in full compliance with all Federal and State  
regulations.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction January 2, 1980 Completion of Construction January 10, 1980

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.)

Bag House: Estimate cost, \$22,000

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

None

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes  No

F. Normal equipment operating time: hrs/day 5; days/wk 5; wks/yr 40; if power plant, hrs/yr \_\_\_\_\_; if seasonal, describe: \_\_\_\_\_

G. 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?  | <u>No</u>  |
| a. If yes, has "offset" been applied?   | <u>N/A</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied?  | <u>N/A</u> |
| c. If yes, list non-attainment pollutants.  |            |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.  | <u>Yes</u> |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u>  |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?  | <u>No</u>  |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?                                       | <u>No</u>  |

Attach all supportive information related to any answer of "Yes". Attach any justification 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 Rate - lbs/hr Average	Relate to Flow Diagram
	Type	% Wt		
Aggregates	Particulate	Approx 6%	280,000	Feed Bins (1)
Liquid Asphalt			20,000	Asphalt Storage (2)

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

1. Total Process Input Rate (lbs/hr): 300,000 Lbs/Hr.

2. Product Weight (lbs/hr): 300,000 Lbs/Hr.

**C. Airborne Contaminants Emitted:**

*97.4% eff ??*

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable Emission <sup>3</sup> lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Dust	<u>5.02</u> <i>1.92</i>	2.51	<sup>59</sup> 38.29 Lbs/Hr.	5.02	<u>192</u>	96 <i>(251)</i>	(3) (4) (5)

**D. Control Devices: (See Section V, Item 4)**

*A - P (1-95)  
A = 96 T/yr*

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )
Baghouse H & B Mod. No. DB7-8910 5 Compartment 6.74:1 Cloth to Air Ratio	Dust	99% <sup>±</sup>	500 Microns or less	See *

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

\*Past performance from industry data.

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
No. 2 Diesel Fuel	6.7 BBL/HR	8.5 BBL/HR	49.2 X 10 <sup>6</sup> BTU/HR

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: 0.24% Percent Ash: 0%  
 Density: 7.171 lbs/gal Typical Percent Nitrogen: \_\_\_\_\_  
 Heat Capacity: 19,520 BTU/lb 140,000 BTU/gal  
 Other Fuel Contaminants (which may cause air pollution): None

F. If applicable, indicate the percent of fuel used for space heating. Annual Average None Maximum \_\_\_\_\_

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

None

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

Stack Height: 30.0 ft. Stack Diameter: 10.0 ft.  
 Gas Flow Rate: 40,000 ACFM Gas Exit Temperature: 150 °F.  
 Water Vapor Content: 18 % Velocity: 50 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	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.):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?  
 Yes    No

Contaminant	Rate or Concentration
Dust	Less than 0.04 Grains/DSCF

- 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:    Bag House
2. Operating Principles:    Dust trapped in fabric, jet cleaned, then mixed w/asphalt
3. Efficiency:    \* 99% +
4. Capital Costs:    \$22,000
5. Useful Life:    5 - 10 years
6. Operating Costs:    -
7. Energy:    -
8. Maintenance Cost:    \$ 5,000 annual
9. Emissions:    Dust

Contaminant	Rate or Concentration
Dust	Less than 0.04 grains/DSCF

\*Explain method of determining D 3 above.  
 Past performance from industry data

10. Stack Parameters

- a. Height: 30 Ft. ft. b. Diameter: 10.0 ft.
- c. Flow Rate: 40,000 ACFM d. Temperature: 150 °F
- e. Velocity: 50 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power – KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
  - d. Capital Cost:
  - e. Life:
  - f. Operating Cost:
  - g. Energy:
  - 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.



(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant

Rate or Concentration

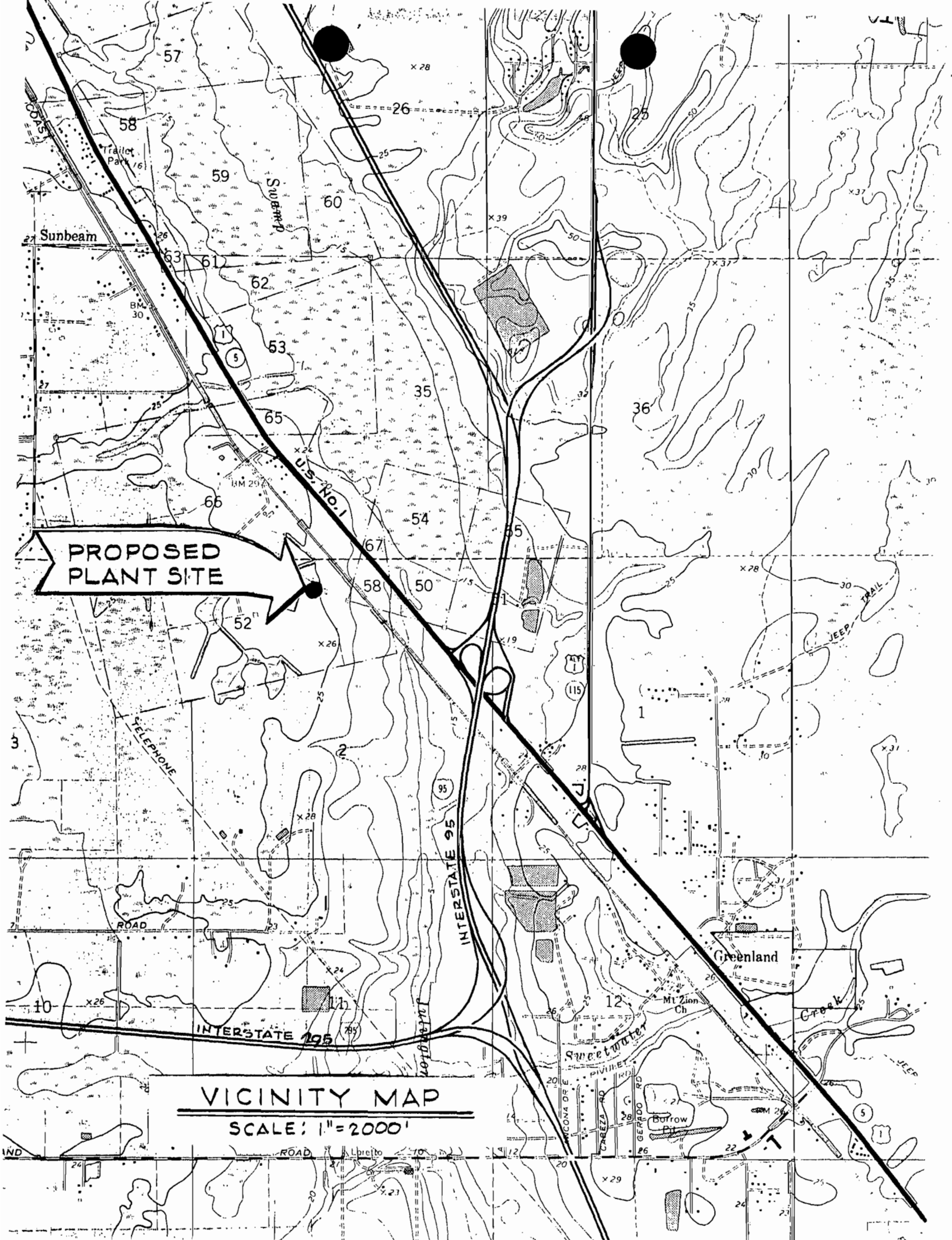
Contaminant	Rate or Concentration

(8) Process Rate\*:

10. Reason for selection and description of systems:

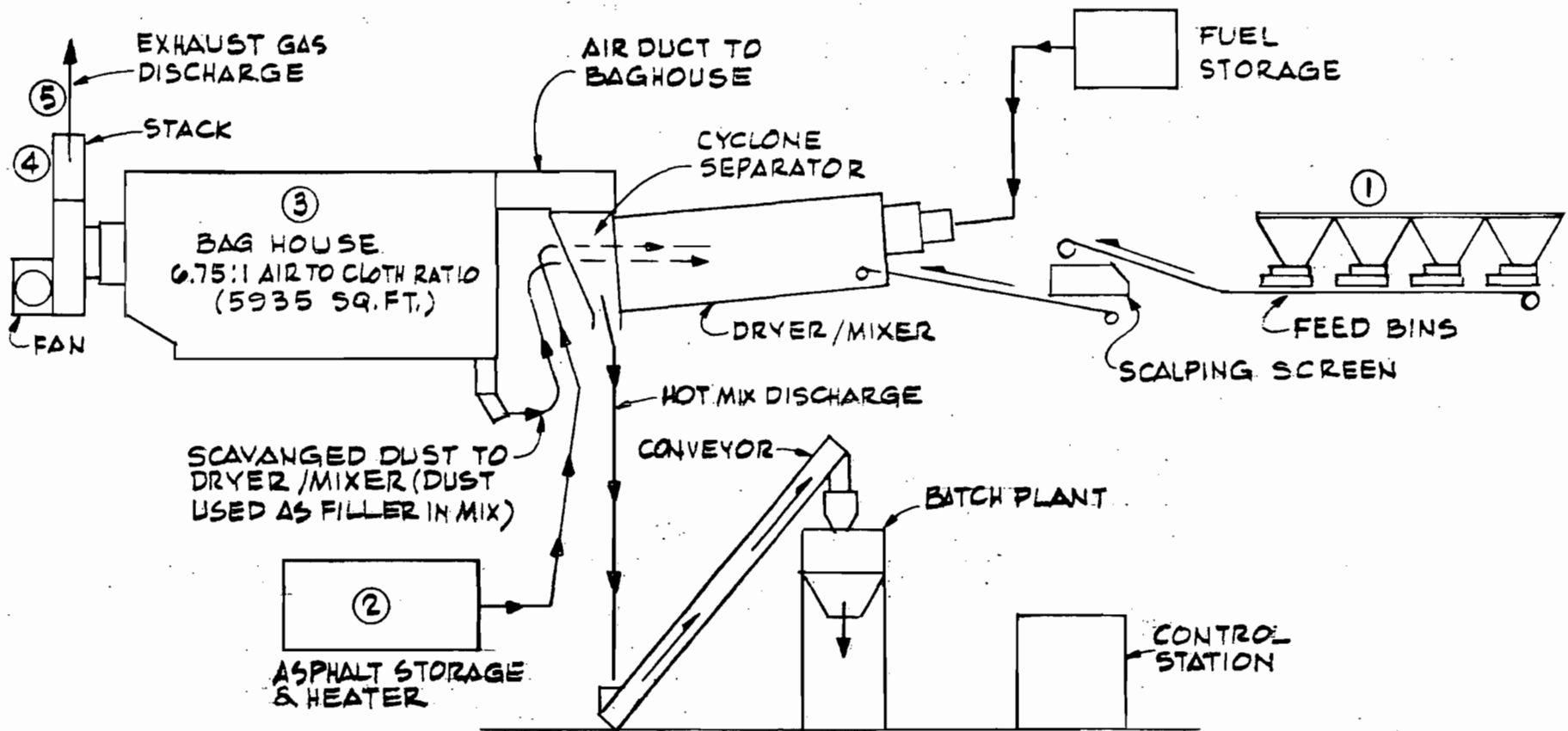
\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.



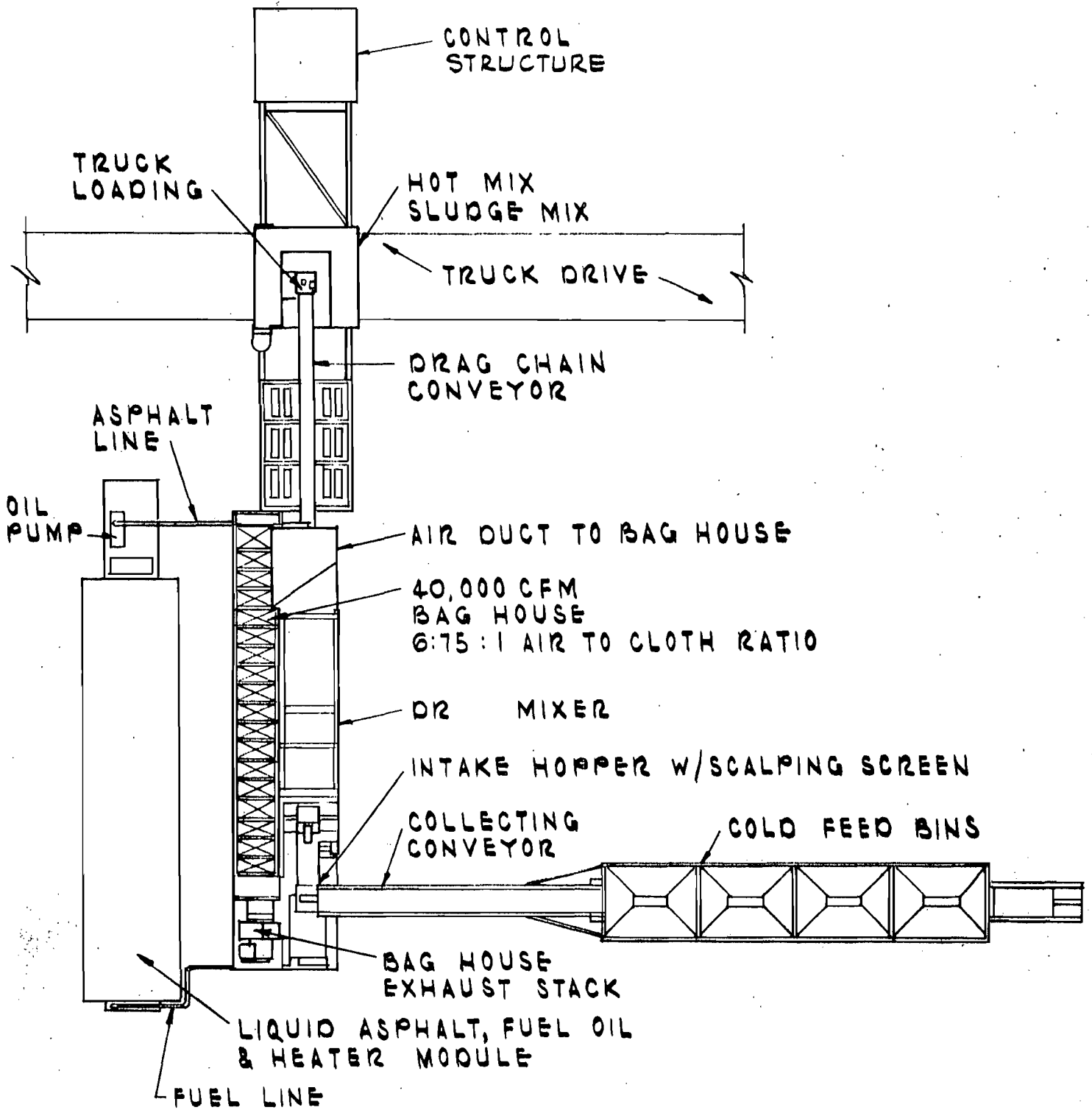


PROPOSED  
PLANT SITE

VICINITY MAP  
SCALE: 1" = 2000'



SCHMATIC FLOW DIAGRAM



## PLANT PLOT PLAN

SCALE:  $\frac{1}{16} = 1'-0''$

January 3, 1980

Mr. William B. Lindler  
Vice-President  
Dickerson, Inc.  
P.O. Box 40949  
Jacksonville, Florida 32203

*Dickerson*

Re: Construction Permit Application, Proposed Shad Road Asphalt Plant.

Dear Mr. Lindler:

We have reviewed the captioned application and have determined that it is incomplete. We are therefore requesting that you submit the following additional, necessary information. Your permit application will be held in abeyance pending its receipt.

1. Section III.C. Please document your calculations for determining the potential emissions as the figures submitted appear to be incorrect. Our calculations show that the potential emissions exceed 250 T/yr and that Best Available Control Technology (BACT) must, therefore, be determined and applied as per Chapter 17-2, Florida Administrative Code. Also, please note that New Source Performance Standards apply as the Allowed Emission Rate and not Process Weight, therefore, please resubmit this information using 0.04 grains/DSCF.

REC'D - 2/11/80  
CONFIDENTIAL  
FILE

2. Section III.D. Submit manufacturer's specifications for control equipment efficiency with respect to particle sizes less than 500 microns.

3. Since this source will be a Major Emitting Facility (Chapter 17-2.02(bb)), BACT does apply. Section VI.B, CC, E, and F must, therefore, be completely filled out for TSP and SO<sub>2</sub>.
4. Section VII Fill out completely for PSD determination.
5. Submit a computer model showing;
  - a. the maximum Particulate impact in the Non-Attainment Area, and,
  - b. the maximum impact anywhere for determining PSD increment consumption.

Mr. William B. Lindler

January 3, 1980

Page 2

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P

Please submit the above as soon as possible, as your permit cannot be processed until this information has been received.

If you have questions, please call me at 633-3033.

Very truly yours,

E. P. Balducci  
Assistant Engineer

EPB/kdw

cc: DER

AWAITING LETTER FROM BALDUCCI,  
 AND COMPLETENESS PRINTS FROM ENNIS \_\_\_\_\_  
 2/26/80

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000000026159 COE# DER PROCESSOR:HODGES DER OFFICE:TLH  
 FILE NAME:DICKERSON, INC./SHAD RD. DATE FIRST REC: 12/12/79 APPLICATION TYPE:AC  
 APPL NAME:DICKERSON, INC./SHAD RD. APPL PHONE:(904)751-3820 PROJECT COUNTY:16  
 ADDR:US HIGHWAY #1 & SHAD ROAD CITY:JACKSONVILLE ST:FLZIP:  
 AGNT NAME:POTTER, ALAN. W., P.E. AGNT PHONE:(904)725-4522  
 ADDR:6957 LILLIAN ROAD CITY:JACKSONVILLE ST:FLZIP:32211

ADDITIONAL INFO REQ:01/03/80 / / / / REC: / / / / / /  
 APPL COMPLETE DATE: / / COMMENTS NEC:Y DATE REQ: / / DATE REC: / /  
 LETTER OF INTENT NEC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / / /  
 HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /  
 HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N

\*\*\* RECORD HAS BEEN SUCCESSFULLY UPDATED \*\*\* 02/14/80 14:30:05

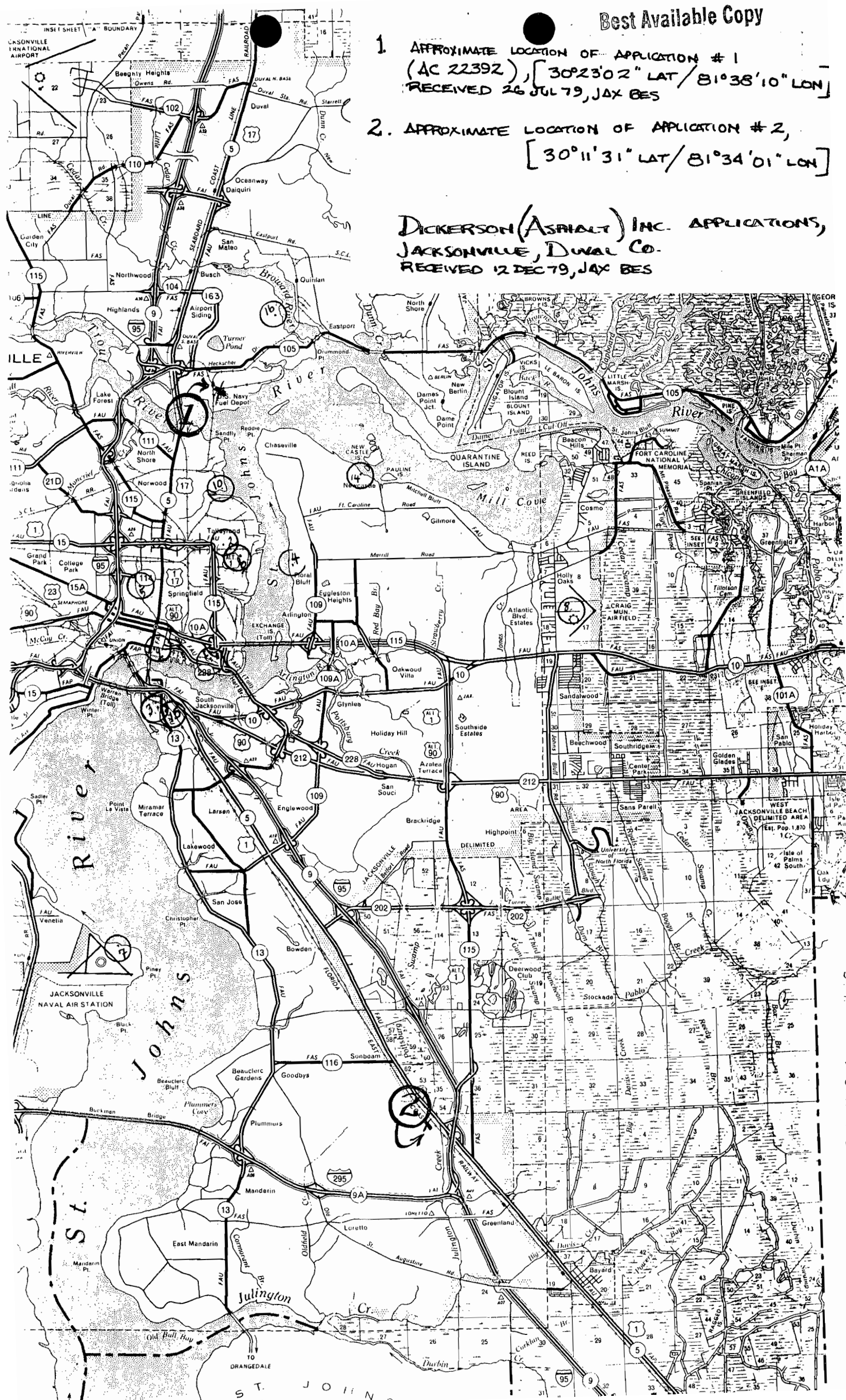
FEE PD DATE#1:12/13/79 \$0020 RECEIPT#00033284 REFUND DATE: / / REFUND \$  
 FEE PD DATE#2: / / \$ RECEIPT# REFUND DATE: / / REFUND \$  
 APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:AC DATE:12/12/79

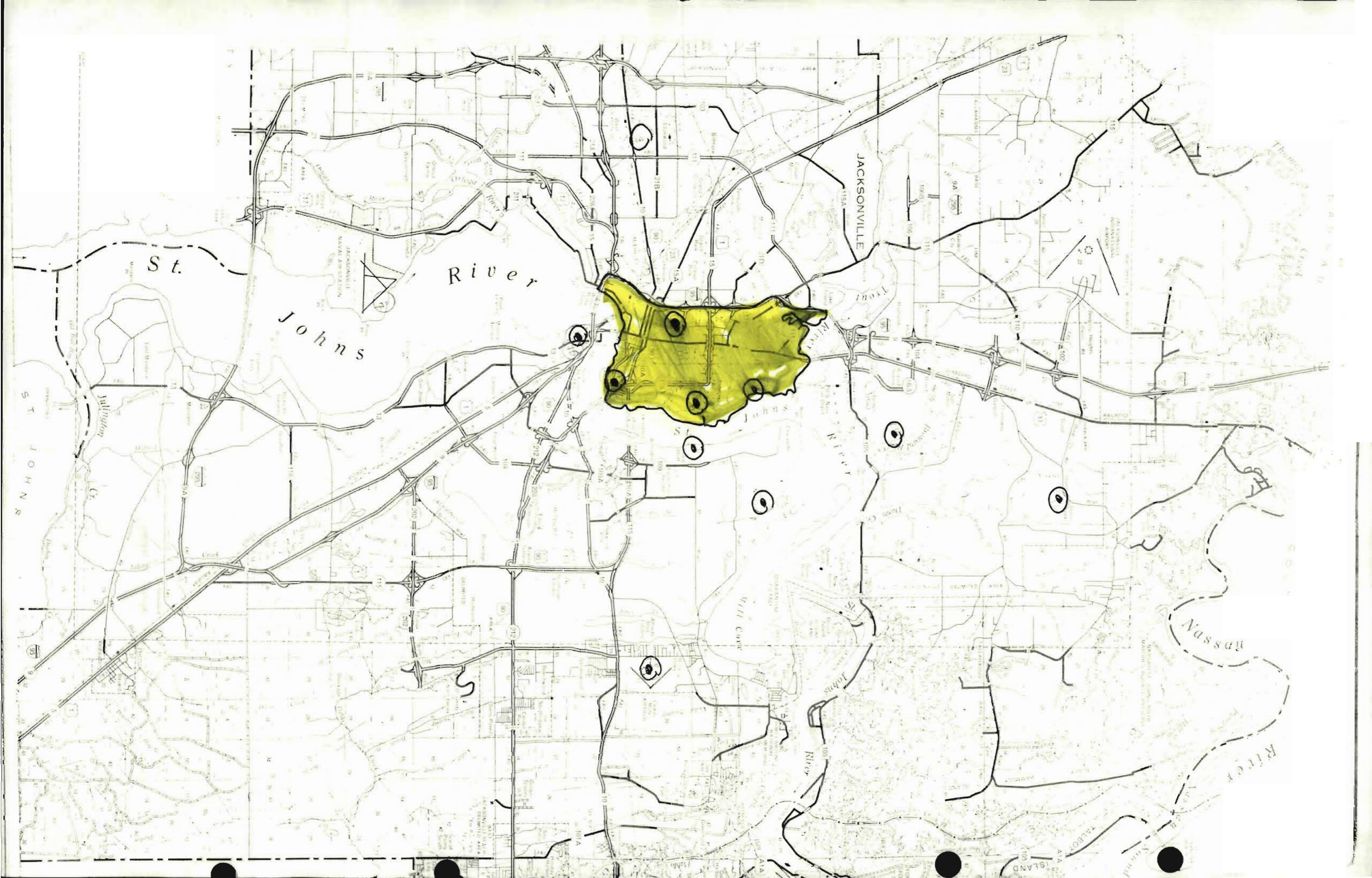
REMARKS:



1. APPROXIMATE LOCATION OF APPLICATION # 1  
(AC 22392), [30°23'02" LAT / 81°38'10" LON]  
RECEIVED 26 JUL 79, JAX BES
2. APPROXIMATE LOCATION OF APPLICATION # 2,  
[30°11'31" LAT / 81°34'01" LON]

DICKERSON (ASPHALT) INC. APPLICATIONS,  
JACKSONVILLE, DUAL CO.  
RECEIVED 12 DEC 79, JAX BES





St.

Johns

River

JACKSONVILLE

Nassau

River

ST. JOHNS

S.

Will Cove

Johns River

ISLAND

ALAN W. POTTER  
CONSULTING ENGINEER

6957 LILLIAN ROAD

JACKSONVILLE, FLORIDA 32211

PHONE 904/725-4522

December 10, 1979

Mr. Edmund Balducci  
Asst. Pollution Control Engineer  
City of Jacksonville  
Air and Water Pollution Control  
515 West Sixth Street  
Jacksonville, Florida 32206



Re: Dickerson, Inc.  
New Asphalt Manufacturing Plant  
Jacksonville, Florida

Dear Mr. Balducci:

Please find enclosed, five (5) sets of Application to Construct, flow diagrams and check in the amount of \$20.00 on referenced.

Dickerson, Inc., plans to construct a new Asphalt manufacturing Plant on U.S. Highway No. 1 approximately 0.8 miles south of the intersection with Sunbeam Road, Jacksonville, Florida.

The new plant is equipped with a Hetherington and Berner Baghouse Model No. DB7-8910, and incorporates the latest technology of the industry.

Air emissions control utilizes the Bag House principal (40,000 c.f.m. with 14 ounce woven Nomex bags, 6.74:1 air to cloth ratio). All captured dust is scavanged, then introduced into the liquid asphalt for use as filler material.

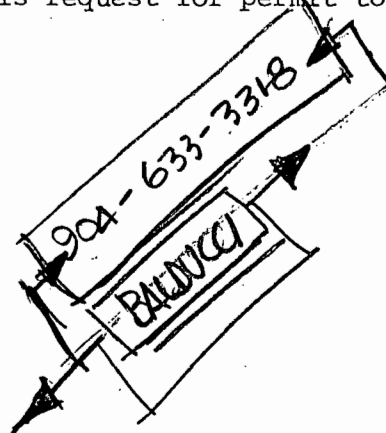
Your review and approval of this request for permit to construct is requested.

Sincerely,

  
Howard A. Enniss

HAE/bod

cc: Dickerson, Inc.



No. 643541

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

SENT TO		William B. Lindler		
STREET AND NO.		P.O. Box 40949		
P.S., STATE AND ZIP CODE		Jacksonville 32203		
POSTAGE	\$			
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	¢		
	SPECIAL DELIVERY	¢		
	RESTRICTED DELIVERY	¢		
	OPTIONAL SERVICES RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	¢	
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢	
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		¢		
TOTAL POSTAGE AND FEES	\$			
POSTMARK OR DATE				

PS Form 3800, Apr. 1976

PS Form 3811 AUG. 1978

● SENDER: Complete items 1, 2, and 3.  
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one).  
 Show to whom and date delivered. \_\_\_\_\_¢  
 Show to whom, date, and address of delivery. \_\_\_\_\_¢  
 RESTRICTED DELIVERY  
 Show to whom and date delivered. \_\_\_\_\_¢  
 RESTRICTED DELIVERY.  
 Show to whom, date, and address of delivery. \$\_\_\_\_\_  
 (CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:  
 Mr. William B. Lindler  
 Dickerson, Inc.  
 P. O. Box 40949, Jax. 32203

3. ARTICLE DESCRIPTION:  
 REGISTERED NO. | CERTIFIED NO. | INSURED NO.  
 | 643541 | |  
 (Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

4. DATE OF DELIVERY: *Shirley Bradford*  
 AUG 27 1979

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: \_\_\_\_\_  
 CLERK'S INITIALS \_\_\_\_\_

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL



P09 5474922

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

*Dickerson*

SENT TO		G. Doug Dutton		
STREET AND NO.		8426 Bills Rd.		
P.O., STATE AND ZIP CODE		Jacksonville, Fla. 32207		
POSTAGE		\$		
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		¢	
	SPECIAL DELIVERY		¢	
		RESTRICTED DELIVERY		¢
	OPTIONAL SERVICES	RETURN RECEIPT SERVICE		¢
		SHOW TO WHOM AND DATE DELIVERED		¢
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		¢
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		¢		
TOTAL POSTAGE AND FEES	\$			
POSTMARK OR DATE				

PS Form 3800, Apr. 1976

P09 5474921

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

SENT TO		Robert Keppelman		
STREET AND NO.		515 West 6th St		
P.O., STATE AND ZIP CODE		Jacksonville, Fla 32206		
POSTAGE		\$		
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		¢	
	SPECIAL DELIVERY		¢	
		RESTRICTED DELIVERY		¢
	OPTIONAL SERVICES	RETURN RECEIPT SERVICE		¢
		SHOW TO WHOM AND DATE DELIVERED		¢
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		¢
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		¢		
TOTAL POSTAGE AND FEES	\$			
POSTMARK OR DATE				

PS Form 3800, Apr. 1976

No. 344222

RECEIPT FOR CERTIFIED MAIL—30¢ (plus postage)

SENT TO		Rene Archard	
STREET AND NO.		7601 Highway 301 N	
P.O., STATE AND ZIP CODE		Jacksonville Fla. 32619	
OPTIONAL SERVICES FOR ADDITIONAL FEES			
RETURN RECEIPT SERVICES	1. Shows to whom and date delivered	15¢	
	With delivery to addressee only	65¢	
	2. Shows to whom, date and where delivered	35¢	
	With delivery to addressee only	85¢	
DELIVER TO ADDRESSEE ONLY		50¢	
SPECIAL DELIVERY (extra fee required)			
PS Form 3800		NO INSURANCE COVERAGE PROVIDED—	
Apr. 1971		NOT FOR INTERNATIONAL MAIL	
		(See other side)	
		* GPO : 1972 O - 460-743	
		POSTMARK OR DATE	

RECEIPT FOR CERTIFIED MAIL—30¢ (plus postage)

SENT TO		John Koogler	
STREET AND NO.		1213 N.W. 6th St.	
P.O., STATE AND ZIP CODE		Gainesville Fla. 32601	
OPTIONAL SERVICES FOR ADDITIONAL FEES			
RETURN RECEIPT SERVICES	1. Shows to whom and date delivered	15¢	
	With delivery to addressee only	65¢	
	2. Shows to whom, date and where delivered	35¢	
	With delivery to addressee only	85¢	
DELIVER TO ADDRESSEE ONLY		50¢	
SPECIAL DELIVERY (extra fee required)			

PS Form 3800 Apr. 1971 NO INSURANCE COVERAGE PROVIDED— (See other side) NOT FOR INTERNATIONAL MAIL \* GPO : 1972 O - 460-743

No. 344221

P09 5474913

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

SENT TO	
Mr. Charles Jenley	
STREET AND NO.	
P.O. Box 867	
P.O., STATE AND ZIP CODE	
Bartow, Fla. 33830	
POSTAGE	\$
CONSULT POSTMASTER FOR FEES	
CERTIFIED FEE	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	
SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	\$
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

P09 5474925

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

SENT TO	
Colin A. Campbell	
STREET AND NO.	
P.O. Box 867	
P.O., STATE AND ZIP CODE	
Bartow, Florida	
POSTAGE	\$ 33830
CONSULT POSTMASTER FOR FEES	
CERTIFIED FEE	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	
SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	\$
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

No. 344223

RECEIPT FOR CERTIFIED MAIL—30¢ (plus postage)

SENT TO	
Roger Stewart	
STREET AND NO.	
1900 9th Ave	
P.O., STATE AND ZIP CODE	
Tampa Fla. 33605	
OPTIONAL SERVICES FOR ADDITIONAL FEES	
RETURN RECEIPT SERVICE	
1. Shows to whom and date delivered	
With delivery to addressee only	
2. Shows to whom, date and where delivered	
With delivery to addressee only	
SPECIAL DELIVERY (extra fee required)	
DELIVER TO ADDRESSEE ONLY	
POSTMARK OR DATE	

PS Form 3800 NO INSURANCE COVERAGE PROVIDED—  
Apr. 1971 NOT FOR INTERNATIONAL MAIL (See other side)  
\* GPO : 1972 O - 460-743

RECEIPT FOR CERTIFIED MAIL—30¢ (plus postage)

SENT TO	
William Lindley	
STREET AND NO.	
P.O. Box 40949	
P.O., STATE AND ZIP CODE	
Jacksonville Fla. 32203	
OPTIONAL SERVICES FOR ADDITIONAL FEES	
RETURN RECEIPT SERVICE	
1. Shows to whom and date delivered	
With delivery to addressee only	
2. Shows to whom, date and where delivered	
With delivery to addressee only	
DELIVER TO ADDRESSEE ONLY	
SPECIAL DELIVERY (extra fee required)	
POSTMARK OR DATE	

PS Form 3800 NO INSURANCE COVERAGE PROVIDED—  
Apr. 1971 NOT FOR INTERNATIONAL MAIL (See other side)  
\* GPO : 1972 O - 460-743

No. 344220

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

**DEPARTMENT OF ENVIRONMENTAL REGULATION**

August 24, 1979

CERTIFIED MAIL

Mr. William B. Lindler  
Vice President  
Dickerson, Inc.  
P. O. Box 40949  
Jacksonville, Florida 32203

RE: Drum Mix Asphalt Batch Plant  
Duval County

Dear Mr. Lindler:

The application submitted by your company to construct a 150 Ton Drum Mix Asphalt Plant in Duval County has been received and reviewed for completeness.

The application as submitted has been found to be incomplete in several respects:

The attached report "Completeness Evaluation of Dickerson Drum Mix Asphalt Plant, Duval County, Number AC-16-22392" describes the additional information needed.

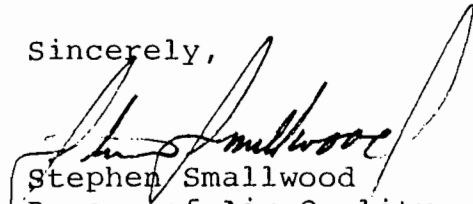
We will be available to meet with you or to assist you by phone in completing your application and to work with you in any way possible to expedite the processing of your application.

For your information, I have attached a copy of Chapter 17-2 FAC including the June 1979 nonattainment rule amendments.

Mr. William B. Lindler  
Page Two  
August 24, 1979

Should you have any questions, please contact me  
at (904) 488-1344.

Sincerely,



Stephen Smallwood  
Bureau of Air Quality  
Management

SS/es

Attachments

cc: J. P. Subramani  
W. Starnes  
D. Dutton  
M. DeGrove  
A. Potter  
R. Cunningham



COMPLETENESS EVALUATION

of

Dickerson Drum Mix Asphalt Batch Plant

Duval County

Application Number AC-16-22392

August 24, 1979

Bureau of Air Quality Management

Florida Department of Environmental Regulation

## Determination of Applicable Rules

The proposed plant is to be located within the Duval County ozone nonattainment area, and within the area of influence of the Jacksonville particulate nonattainment area. (See 17-2.13, 17-2.16, and 17-2.17(1) FAC). The proposed plant is a major source with respect to particulate (17-2.02(6) FAC), and therefore is not exempt from the nonattainment rule for particulate unless reasonable assurance is provided that the particulate emission from the plant will not have a significant impact on the particulate nonattainment area (17-2.17(1) FAC).

The VOC emission from the proposed plant is subject to the nonattainment rule unless the VOC emission is to be less than 5 #/hr and 15 Ton/year. (17-2.17(3) FAC).

The proposed plant is a major emitting facility with respect to particulate emission (17-2.02(70) FAC) subjecting the particulate emission to control by BACT (17-2.03 FAC). Sufficient information has not been provided for VOC or NO<sub>2</sub> emission to determine if BACT applies to these emissions. The plant is not a major emitting facility with respect to sulfur dioxide, therefore BACT does not apply to the emission of SO<sub>2</sub>, however, the SO<sub>2</sub> emission is subject to a permit condition that will provide reasonable assurance that the ambient standards will not be violated.

Ambient Modeling and Monitoring Requirements

No additional modeling or monitoring data is required.

Information Needed

1. Provide emission estimates in ton per year of NO<sub>2</sub> (dryer) and VOC (dryer and on-site fuel or asphalt storage or handling).
2. Recommended BACT for each pollutant (NO<sub>2</sub>, VOC) that is to have potential emissions in excess of 250 tons per year.
3. Substantiate emission factor used for particulate emission. Supplement #8 of AP-42 give 4.9 #/ton as the uncontrolled emission factor for drum mix asphalt plants.
4. Identify, quantify and state control procedures for fugitive particulate emission pursuant to 17-2.05.
5. Specify any limitation on the hours of operation requested. The permitted hours of operation is a factor in the tons/year potential emissions calculations. If no additional specification is provided the operation times shown in Section II, F. Page 2, Form 17-1.122 will be applied both for potential emission calculations and as a permit condition.

TWIN TOWER OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM,  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA  
**DEPARTMENT OF ENVIRONMENTAL REGULATION**

August 3, 1979

Mr. William B. Lindler  
Dickerson Ashpalt Inc.  
UTM 438880 E/3361140N

Dear Mr. Lindler:

This letter is to inform you that the Florida Department of Environmental Regulation, Bureau of Air Quality Management has received and processed the following check(s) submitted by you:

<u>REMITTER</u>	<u>CHECK NUMBER</u>	<u>CHECK AMOUNT</u>	<u>AIR POLLUTION SOURCE CONSTRUCTION APPLICATION FOR:</u>
Alan W. Potter (Dickerson Asphalt)	6449, American Arlington Bank, Jacksonville, Florida	\$20.00	Dickerson Asphalt (Duval County)

If the Department may be of further assistance to you, in the Permit Application Process, please contact Mark Hodges, at 904/488-1344.

Sincerely,

Mark Hodges  
Bureau of Air Quality  
Management

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 33502

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from DICKERSON (ASPHALT) INC. (PERMIT BATCH) Date 26 JULY 1979

Address UTM 43880 E / 33611 40 N Dollars \$ 20<sup>00</sup>

Applicant Name & Address WILLIAM B. LINDLER

Source of Revenue \_\_\_\_\_

Revenue Code \_\_\_\_\_ Application Number AC 22392

By M. Lindler

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000000022392 COE# DER PROCESSOR:STARNES DER OFFICE:TLH  
FILE NAME:DICKERSON INCORPORATED DATE FIRST REC: 07/26/79 APPLICATION TYPE:AC  
APPL NAME:LINDLER, WILLIAM B. APPL PHONE:(904)764-7774 PROJECT COUNTY:16  
ADDR:P.O.BOX 40949 CITY:JACKSONVILLE ST:FLZIP:32203  
AGNT NAME:POTTER, ALAN W. AGNT PHONE:(904)725-4522  
ADDR:6957 LILLIAN ROAD CITY:JACKSONVILLE ST:FLZIP:32244

ADDITIONAL INFO REQ:08/24/79 / / / / REC: / / / / / /  
APPL COMPLETE DATE: / / COMMENTS NEC:Y DATE REQ: / / DATE REC: / /  
LETTER OF INTENT NEC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / / /  
HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /  
HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N

\*\*\* RECORD HAS BEEN SUCCESSFULLY UPDATED \*\*\* 08/24/79 14:01:29

FEE PD DATE#1:07/26/79 \$0020 RECEIPT#00033502 REFUND DATE: / / REFUND \$  
FEE PD DATE#2: / / \$ RECEIPT# REFUND DATE: / / REFUND \$  
APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:AC DATE:07/26/79  
REMARKS:SOURCE LOCATION: UTM=438880E/3361140N, LAT/LON=30.23'02"N/81.38'10",  
JACKSONVILLE.

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000000022392 COE#

DER PROCESSOR: STARNES

DER OFFICE: TL

FILE NAME: DICKERSON INCORPORATED

DATE FIRST REC: 07/26/79

APPLICATION TYPE: AD

APPL NAME: LINDLER, WILLIAM B.

APPL PHONE: (904)64-7771

PROJECT COUNTY: 16

ADDR: P.O. BOX 40949

CITY: JACKSONVILLE

ST: FLZIP: 32203

AGNT NAME: POTTER, ALAN W.

AGNT PHONE: (904)725-4522

ADDR: 6957 LILLIAN ROAD

CITY: JACKSONVILLE

ST: FLZIP: 32211

ADDITIONAL INFO REQ: 08/24/79

REC: / /

APPL COMPLETE DATE: / /

COMMENTS NEC: Y DATE REQ: / /

DATE REC: / /

LETTER OF INTENT NEC: Y

DATE WHEN INTENT ISSUED: / /

WAIVER DATE: / /

HEARING REQUEST DATES: / /

HEARING WITHDRAWN/DENIED/ORDER -- DATES: / /

HEARING ORDER OR FINAL ACTION DUE DATE: / /

MANUAL TRACKING DESIRED: N

\*\*\* RECORD HAS BEEN SUCCESSFULLY UPDATED \*\*\* 02/14/80 09:42:38

FEE PD DATE#1: 07/26/79 \$0020

RECEIPT# 00033502

REFUND DATE: / / REFUND \$

FEE PD DATE#2: / / \$

RECEIPT#

REFUND DATE: / / REFUND \$

APPL: ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED: WI DATE: 02/04/80

REMARKS: SOURCE LOCATION: UTM=438880E/3361140N, LAT/LON=30.23'02"N/81.38'10", JACKSONVILLE.

*Howe*

ALAN W. POTTER  
CONSULTING ENGINEER

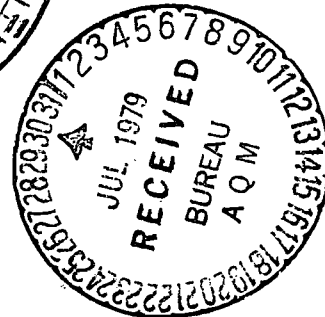
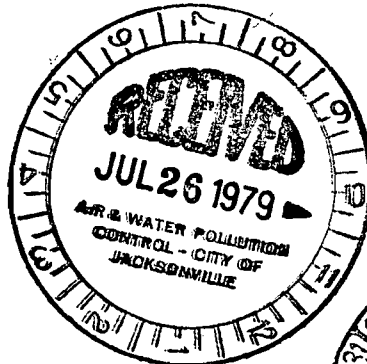
6957 LILLIAN ROAD

JACKSONVILLE 11, FLORIDA

PHONE 725-4522

July 26, 1979

Mr. Edmund Balducci  
Assistant Pollution Control Engineer  
City of Jacksonville  
Air and Water Pollution Control  
515 West Sixth Street  
Jacksonville, Florida 32206



Re: DICKERSON, INC.  
Jacksonville, Florida  
New Portable Asphalt Batch Plant  
Jacksonville, Duval County, Florida

Dear Mr. Balducci:

Enclosed are five (5) copies of "Application to Construct", related "Test Reports", plant "Flow Diagrams, and, our check No. 6449 in the amount of Twenty Dollars as required "Application Fee" for referenced.

Dickerson, Inc. plans to utilize the new portable asphalt batch plant as an interim plant facility while their existing asphalt plant is being relocated from its present site to the new site (0.6 mile west).

The new portable asphalt batch plant was manufactured by Astec Industries, Inc., Chattanooga, Tennessee, and incorporates the latest technology of the industry.

Air emissions control utilizes the "bag house" principle (28,000 c.f.m. with 630 - 14 ounce woven Nomex bags, 5.75:1 air to cloth ratio). All captured dust is scavenged and then is introduced into the liquid asphalt for use as "filler material".

In accordance with the conference in your office this date, it is our understanding that the enclosed application and data constitutes a satisfactory response to your letter of July 24, 1979, and that no additional action or response is required until further notice from you.

Your review and approval of this submittal is requested.

Sincerely,

*Howard A. Enniss*  
Howard A. Enniss

HAE/p

cc: Dickerson, Inc.  
Jacksonville, Fla.



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 33502

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from DICKERSON (ASPHALT) INC. (PORTABLE LATCH PLANT) Date 26 JULY 1973

Address UTM 432880 E / 3361140 N Dollars \$ 20<sup>00</sup>

Applicant Name & Address WILLIAM B. LINDLER

Source of Revenue \_\_\_\_\_

Revenue Code \_\_\_\_\_ Application Number AC 22392

By M. [Signature]



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution  New<sup>1</sup>  Existing<sup>1</sup>  
 APPLICATION TYPE:  Construction  Operation  Modification  
 COMPANY NAME: Dickerson, Inc. COUNTY: Duval  
 Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Portable Asphalt Batch Plant  
 SOURCE LOCATION: Street \_\_\_\_\_ City: Jacksonville  
 UTM: East 438880 North 3361140  
 Latitude 30 ° 23 ' 02 "N Longitude 81 ° 38 ' 10 "W  
 APPLICANT NAME AND TITLE: William B. Lindler, Vice President  
 APPLICANT ADDRESS: P. O. Box 40949, Jacksonville, Florida 32203

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative<sup>\*</sup> of Dickerson, Inc.

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. I 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

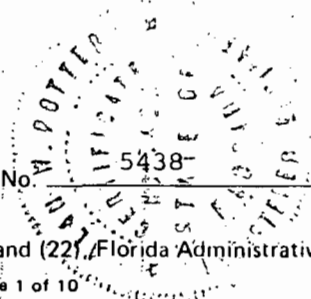
Signed: [Signature]  
William B. Lindler, Vice President  
 Name and Title (Please Type)  
 Date: July 26, 1979 Telephone No. (904) 764-7771

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 the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: [Signature]  
Alan W. Potter, P.E.  
 Name (Please Type)  
Alan W. Potter, Consulting Engineer  
 Company Name (Please Type)  
6957 Lillian Road, Jax., Fla. 32211  
 Mailing Address (Please Type)  
 Date: July 26, 1979 Telephone No. (904) 725-4522

(Affix Seal)



Florida Registration No. 5438

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.  
150 ton/hr asphalt batch plant with bag house collector. This facility will  
be in full compliance with all applicable State and Federal regulations.
- B. Schedule of project covered in this application (Construction Permit Application Only)  
 Start of Construction August 1979 Completion of Construction September 1979
- 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.)  
Bag House, \$180,000.00
- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.  
None
- E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes  No
- F. Normal equipment operating time: hrs/day 5 ; days/wk 5 ; wks/yr 40 ; if power plant, hrs/yr \_\_\_\_\_ ;  
 if seasonal, describe: \_\_\_\_\_
- G. 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?  | <u>No</u>  |
| a. If yes, has "offset" been applied?   | _____      |
| b. If yes, has "Lowest Achievable Emission Rate" been applied?  | _____      |
| c. If yes, list non-attainment pollutants.<br>_____   |            |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.  | <u>Yes</u> |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>Yes</u> |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?  | <u>Yes</u> |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?                                       | <u>No</u>  |
- Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Aggregate	Particulate	6%	280,000 lbs/hr	Cold Feed bins (1)
Liquid Asphalt	None		20,000 lbs/hr	Asphalt Storage (20)

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

- Total Process Input Rate (lbs/hr): 300,000 lbs/hr
- Product Weight (lbs/hr): 300,000 lbs/hr

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate Matter	3.4	1.7	0.04 grains/SCF NSPS	5.02	2250	1125	(11)(13)(G)
SO <sub>2</sub>	12.3	6.15	BACT	12.3	12.3	6.15	(6)(13)(G)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )
Astec Bag House 630 - 14 oz Nomex bags; 5.75:1 Air to Cloth ratio	Particulate	99.85%	- 200 mesh	mfg recommended & test data (see attachment)

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
No. 2 Diesel Fuel	6.91 bbl/hr	8.5 bbl/hr	50.0 X 10 <sup>6</sup> BTU/hr

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: 0.24 % Percent Ash: 0%  
 Density: 7.171 lbs/gal Typical Percent Nitrogen: \_\_\_\_\_  
 Heat Capacity: 19,520 BTU/lb 140,000 BTU/gal  
 Other Fuel Contaminants (which may cause air pollution): None

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.

None

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

Stack Height: 15.5 ft. Stack Diameter: 2.8 x 1.9 = 5.32 sq. ft. ft.  
 Gas Flow Rate: 28,000 ACFM Gas Exit Temperature: 350 °F.  
 Water Vapor Content: 20 % Velocity: 87.7 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	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: \_\_\_\_\_

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Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

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### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
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, 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 8½" 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 8½" 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 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

SECTION V SUPPLEMENTAL INFORMATION

1. PROCESS INPUT RATE & PRODUCT WEIGHT

INPUT: AGGREGATE 280,000 lb/hr  
ASPHALTIC CEMENT 20,000

TOTAL INPUT 300,000 lb/hr

OUTPUT: AIR EMISSIONS 3 lb/hr  
PRODUCT 299,997

TOTAL OUTPUT 300,000 lb/hr

2. SEE ATTACHMENTS 1 AND 2

3. UNCONTROLLED EMISSION FACTOR

AP-42 SECT B.1 - 15 lb PART / ton ASPHALT CONC.

PRODUCTION RATE 300,000 lb/hr  
150 ton/hr

$$\begin{aligned} \text{POTENTIAL EMISSIONS} &= 15 \frac{\text{lb}}{\text{ton}} \times 150 \frac{\text{ton}}{\text{hr}} \\ &= 2250 \text{ lb/hr} \end{aligned}$$

\* 1125 ton/yr based upon 1000 hr/yr operation

4. ASTEC PLANT AND BAGHOUSE

BAGHOUSE: 630 - 14 02. NOMEX BAGS

AIR: CLOTH RATIO = 5.75:1

(SEE ATTACHMENT 3)

5. EFFICIENCY OF CONTROL SYSTEM

POTENTIAL EMISSIONS = 2250 lb/hr (V-3)  
ACTUAL EMISSIONS = 3.4 lb/hr (V-2)

$$\begin{aligned} \text{EFFICIENCY} &= \frac{2250 - 3.4}{2250} \times 100 \\ &= 99.85\% \end{aligned}$$

SECTION V (CONT)

- 6. PROCESS FLOW DIAGRAM (SEE ATTACHMENT 4)
- 7. LOCATION MAP (SEE ATTACHMENT 5)
- 8. PLOT PLAN (SEE ATTACHMENT 6)



9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?  
 Yes  No

Contaminant	Rate or Concentration
Particulate Matter	0.04 grains/SCF, dry

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
Particulate Matter	0.04 Grains/DSCF*
SO <sub>2</sub>	0.24% Sulfur fuel Oil

D. Describe the existing control and treatment technology (if any). (New source - proposed control)

- Control Device/System: Bag House
- Operating Principles: impaction on fabric cloth
- Efficiency: 99.85%
- Capital Costs: \$180,000.
- Useful Life: 10 years
- Operating Costs: \$1,000 annual
- Energy: 18,650 kwh/yr
- Maintenance Cost: \$4,000 annual
- Emissions: Particulate Matter and SO<sub>2</sub>

Contaminant	Rate or Concentration
Particulate Matter	0.04 Grains/DSCF
SO <sub>2</sub>	0.24% Sulfur fuel oil

\*Explain method of determining D 3 above. (see Section V-5)

\*DER has already determined BACT for Asphalt Plants to be: Bag House with 0.04 grains/SCF dry. 0.5% Sulfur fuel Oil.

10. Stack Parameters

- a. Height: 15.5 ft.
- b. Diameter: 2.8 x 1.9 ft.
- c. Flow Rate: 28,000 ACFM
- d. Temperature: 350 °F
- e. Velocity: 87.7 FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device: Bag House
- b. Operating Principles: impaction
- c. Efficiency\*: 99.85% (see V-5)
- d. Capital Cost: \$180,000
- e. Useful Life: 10 yrs
- f. Operating Cost: \$1,000/year
- g. Energy\*: 18,650 KWH/yr
- h. Maintenance Cost: 4000/year
- i. Availability of construction materials and process chemicals:  
Available
- j. Applicability to manufacturing processes: applicable
- k. Ability to construct with control device, install in available space, and operate within proposed levels:  
can be done

2.

- a. Control Device: High Energy Scrubber
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power – KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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: (See E-1)

- 1. Control Device:
- 2. Efficiency\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer: Astec
- 9. Other locations where employed on similar processes:

a.

- (1) Company: Florida Asphalt Paving Company
- (2) Mailing Address:
- (3) City: Panama City
- (4) State: Florida
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration
Particulate Matter	3.51 lb/hr (0.016 grains/SCF, dry)
	(see attached)

(8) Process Rate\*: 150 Tons/hour

b.

- (1) Company: Holland Construction Company
- (2) Mailing Address:
- (3) City: Dublin
- (4) State: Georgia

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant  
Particulate Matter

Rate or Concentration  
3.2 lb/hr (0.025 grains/SCF, dry)

(see attached)

(8) Process Rate\*: 224 tons/hour

10. Reason for selection and description of systems:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data N/A

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup>\* \_\_\_\_\_ 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.

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. 72 Year(s) of data from 1 / 1 / 72 to 12 / 30 / 72  
month day year month day year

2. Surface data obtained from (location) Valdosta

3. Upper air (mixing height) data obtained from (location) Waycross

4. Stability wind rose (STAR) data obtained from (location) Valdosta/Waycross

C. Computer Models Used

1. CRSTER, unmodified (attachments 7 & 8) 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	<u>0.63</u> grams/sec
SO <sup>2</sup>	<u>1.54</u> grams/sec potential; there is no emission limiting standard

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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. The CRSTER Model output shows the impact of the proposed plant on TSP and SO<sub>2</sub> levels to be less than 12 percent of the allowable PSD increments. Since there are no major sources near the proposed site (i.e. good air quality) and the impact of the proposed source is slight, no additional modeling was conducted.

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.

The technology proposed for this facility is Best Available Control Technology with minimal social and economic impact on the applicant.

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.

48878-02

PARTICULATE EMISSION RATE STUDY  
ON AN ASPHALT DRUM MIX PLANT

Prepared For:

ASTEC INDUSTRIES, INC.  
POST OFFICE BOX 2787  
CHATTANOOGA, TENNESSEE 37407

Prepared By:

HARMON ENGINEERING & TESTING  
AUBURN INDUSTRIAL PARK  
AUBURN, ALABAMA 36830

AUGUST 8, 1978

## INTRODUCTION

This document reports the results of particulate emission rate tests performed for the Florida Asphalt Paving Company of Panama City, Florida, at the drum mix asphalt plant near Blountstown, Florida. The source tested was an Astec Baghouse system which controls emissions from the aggregate dryer.

The purpose of these tests, conducted on July 28 and August 1, 1978, was to determine the particulate emission rate to the atmosphere. The emission rate tests were performed in accordance with State and EPA testing procedures. Basically, EPA test Method No. 5 as described in the Federal Register (Vol. 42, Thursday, August 18, 1977) was used.

Field testing described herein was coordinated by Mr. Lynn Nance of Astec Industries, Inc., with Mr. Wayne Daughtry of Harmon Engineering & Testing. Mr. Steve Fendley assisted Mr. Daughtry with the testing.

The Florida Department of Environment Regulation was not present during testing procedures.

## PROCESS DESCRIPTION AND OPERATION

Figure 1 is a schematic diagram of the Astec asphalt drum mix process and baghouse tested.

The maximum production rate of the plant is approximately 300 tons per hour. During the emission tests, the plant produced an average of 150 tons per hour.

No. 2 fuel oil was used for drying the aggregate, which consists of sand and asphalt with 7 percent fines. The plant was producing an S.A.H.M. surface mix at the time of testing.



TABLE I  
PARTICULATE EMISSION TEST RESULTS

PARAMETER	TEST NUMBER 1	TEST NUMBER 2	TEST NUMBER 3	AVERAGE
Date	7-28-78	8-1-78	8-1-78	
Time Begun	9:50	7:45	12:30	
Time End	11:40	9:14	4:46	
Net Time of Test, Minutes	72	72	72	72
Volume of Gas Sampled @ STP, Cubic Feet	66.485	62.304	61.417	63.402
Stack Gas Temperature, °F	316.3	296.9	314.2	309.1
Stack Gas Moisture Content, % (Volume)	17.3	23.6	23.5	21.5
Stack Gas Velocity, Feet per Second	83.1	79.6	76.3	79.7
Stack Gas Flow Rate @ Stack Conditions, Cubic Feet per Minute	55973.2	53629.4	51377.3	53650.0
Stack Gas Flow Rate @ STP, Cubic Feet per Minute	31693.2	28802.1	27023.0	29172.8
Isokinetic Sampling Rate, %	97.9	103.3	105.0	102.1
Particulate Concentration @ STP, Grains per Cubic Foot	0.019	0.016	0.013	0.016
Particulate Emission Rate, Pounds per Hour	3.531	3.90	3.10	3.51
Particulate Emission Rate, Pounds/10 <sup>6</sup> BTU	---			
Coal Burning Rate: X 10 <sup>6</sup> BTU/Hour	---			
Allowable Particulate Emission Rate, Grains per Cubic Foot	0.040	0.040	0.040	0.040

STP (STANDARD CONDITION): Dry 68°F, 29.92" Hg

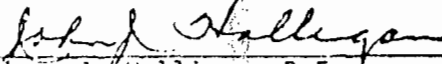
COMPLIANCE PARTICULATE EMISSION TESTING  
ON  
ASPHALT CONCRETE PLANT  
AT  
HOLLAND CONSTRUCTION COMPANY  
DUBLIN, GEORGIA

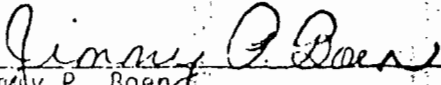
Test Dates: August 29-30, 1978

Job Number: 1197

Submitted By:

Air Quality Testing & Design, Inc.  
2691 McCollum Parkway  
Kennesaw, Georgia 30144

  
John J. Halligan, P.E.  
Engineering Consultant

  
Jimmy P. Boenig  
Testing Supervisor

## I. INTRODUCTION

Compliance particulate emission testing was performed at Holland Construction Company's asphalt plant, Dublin, Georgia during August 29-30, 1978. The purpose of the tests was to determine if the particulate concentration discharge meets Environmental Protection Agency's regulation for asphalt plants.

The tests were performed by Jimmy P. Boen and James S. Dickey of Air Quality Testing & Design, Inc.

Air Quality Testing & Design would like to extend its appreciation to Mr. J. Lynn Nance of the Astec Industries, Inc., Mr. John Underwood of the Holland Construction Company, and plant personnel for their cooperation and assistance during the testing program. AQT&D would also like to give its appreciation to Mr. Bob Clark and Mr. Jimmy Kirkland with the Georgia Department of Natural Resources for their review of the testing procedures and plant operations.

## II. SUMMARY OF RESULTS

The summary of results are shown in tabular form in Table I in the Appendix.

The particulate concentration, and allowable concentration for each test is shown below.

<u>Test Number</u>	<u>Particulate Concentration (gr/dscf)</u>	<u>Allowable Concentration (gr/dscf)</u>
1	0.0357	0.0400
2	0.0212	0.0400
3	0.0226	0.0400
4	0.0215	0.0400

The above allowable concentrations are based on standards described in the Federal Register, Standards of Performance for New Stationary Sources, dated December 23, 1971; Subpart I - Standards of Performance for Asphalt Concrete Plants.

### III. PROCESS DESCRIPTION

A process flow diagram is shown after the written portion of this report. The sized aggregate is proportioned into the desired mix by aggregate feed hoppers. A belt conveyor transfers the aggregate mix into a one deck screen to eliminate oversized aggregate. The aggregate mix is transferred from the screen to the concurrent flow rotary drum-mixer by another belt conveyor. The mixing of the asphalt oil and the drying of the aggregate takes place in the rotary drum. The product is then transferred by a drag chain conveyor to a insulated storage bin for truck loading.

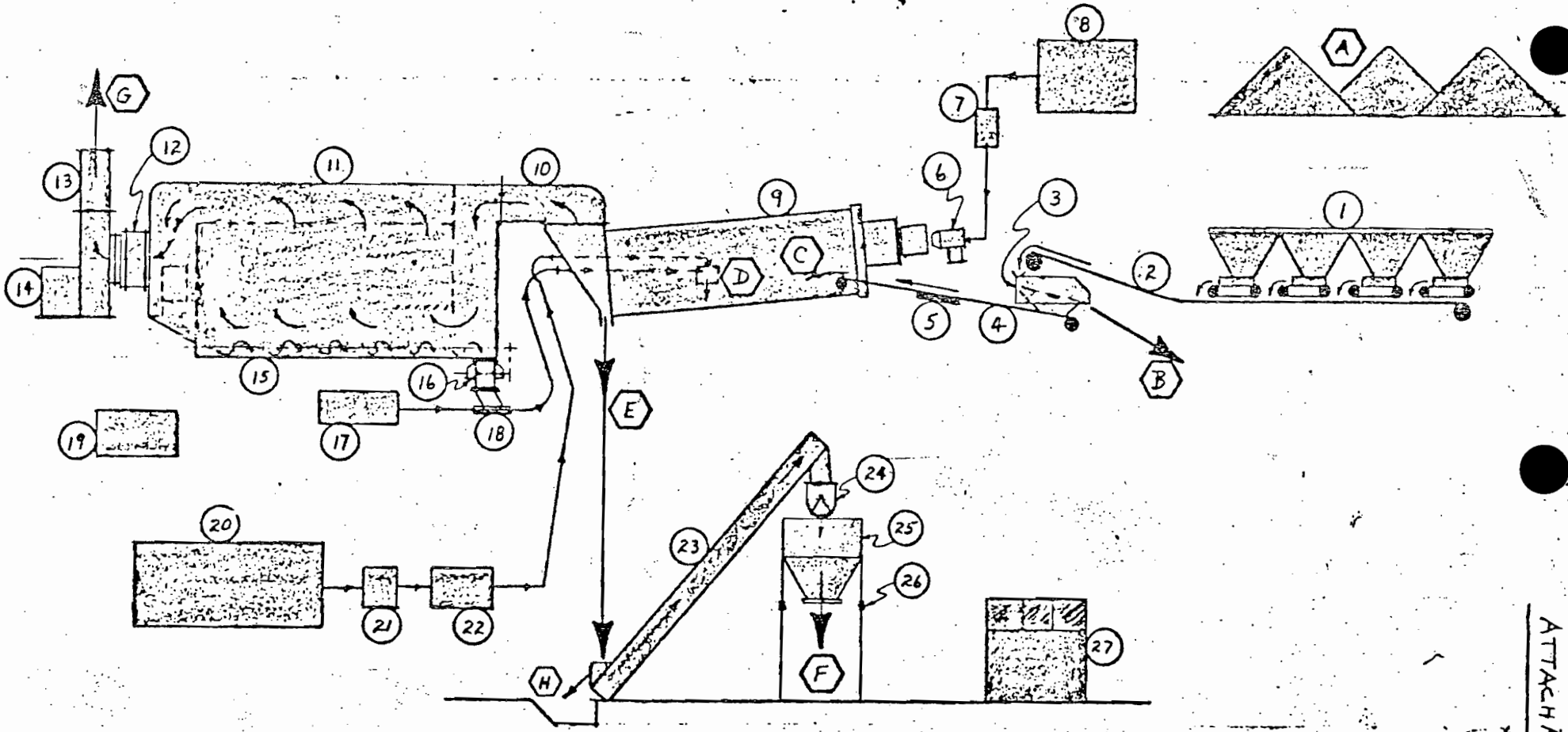
Process gases exhausted from the rotary drum-mixer, passes through a reverse air baghouse. The cleaned gases are extracted from the baghouse by an induced draft fan and discharged through a vertical stack. During the test program the rotary drum mixer was operated at an average of 224 tons per hour.

### IV. SAMPLING AND ANALYTICAL PROCEDURES

The sampling train used for the execution of this testing was manufactured by GII Enterprises, Inc. of Elkland, Pennsylvania. The sampling train meets all specifications, as outlined by the Environmental Protection Agency. Enclosed is descriptive information of the equipment.

SUMMARY OF TEST RESULTS

	Test Number			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Sampling Time (min)	<u>60</u>	<u>60</u>	<u>60</u>	<u>60</u>
Volume Sampled (dscf)	<u>22.33</u>	<u>43.36</u>	<u>41.43</u>	<u>36.76</u>
Volume Sampled (ACF)	<u>49.05</u>	<u>95.03</u>	<u>93.38</u>	<u>82.77</u>
Moisture (% by volume)	<u>33.8</u>	<u>33.9</u>	<u>36.1</u>	<u>35.7</u>
Volume Flow Rate (dscf/min)	<u>14,456</u>	<u>15,884</u>	<u>14,458</u>	<u>14,719</u>
Volume Flow Rate (ACF/min)	<u>31,754</u>	<u>34,814</u>	<u>32,590</u>	<u>33,142</u>
Total Sample Weight (mg)	<u>51.7</u>	<u>59.7</u>	<u>60.6</u>	<u>51.3</u>
Particulate Concentration (gr/dscf)	<u>0.0357</u>	<u>0.0212</u>	<u>0.0226</u>	<u>0.0215</u>
Particulate Concentration (gr/ACF)	<u>0.0163</u>	<u>0.0097</u>	<u>0.0100</u>	<u>0.0096</u>
Particulate Emission Rate (#/hr)	<u>4.4</u>	<u>2.9</u>	<u>2.8</u>	<u>2.7</u>
Allowable Particulate Emission Federal Standard, Subpart I (gr/dscf)	<u>0.0400</u>	<u>0.0400</u>	<u>0.0400</u>	<u>0.0400</u>
Process Input Weight Rate (TPH)	<u>236</u>	<u>221</u>	<u>227</u>	<u>212</u>
Isokinetic Value (I)	<u>102.1</u>	<u>101.4</u>	<u>106.5</u>	<u>92.8</u>



ATTACHMENT 4

**ABTEC INDUSTRIES, INC.**  
 P.O. BOX 3787 • 4101 JEROME AVENUE  
 CHATTANOOGA, TENNESSEE 37407 • 615/867-4319

CLIENT Dickerson Inc JOB No. \_\_\_\_\_  
 SUBJECT Farm Diagram ENGINEER W. R. King DATE 12-1-77  
 PAGE 1 OF 2

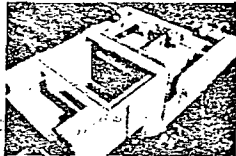
1/2

a four load plant that comes completely assembled with these outstanding features

**drum mixer & baghouse**

The Drum Mixer-Baghouse combination is a completely portable unit that comes assembled with triple axle running gear. Preparation for start-up consists of leveling on timber footings, power cable connections and hookup of asphalt and dust piping. This unit is equipped with the following features:

**Scalping Screen**—A 3'-0" x 6'-0" high capacity rod deck scalper mounted over the slinger feeder re-



moves all oversized material through a discharge chute over the pooseneck.

**Slinger Feeder**—A 20" wide slinger feeder equipped with a high temperature belt is used to charge the drum.

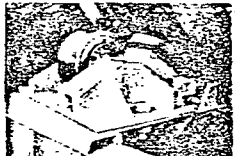


The aggregate weigh bridge with load cells is mounted in the slinger feeder. A belt speed sensor is mounted on the tail shaft.



**Burner**—A 52,000,000 BTU/hr low pressure oil burner has automatic temperature control and flame safeguards. A 25 HP high efficiency blower and a lightweight ceramic combustion chamber reduces the unit weight.

**Drum**—The Drum is 6'-0" in diameter x 27'-0" long and is constructed of 3/4" Tri-Ten 60 steel plate. Bolt on



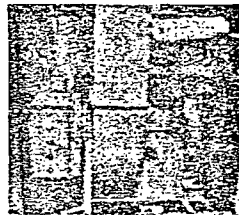
flights form a specially engineered design to create a proper material veil, lowering stack temperatures and reducing fuel consumption. The drum is totally sealed with mechanical dust seals on each end and a flap gate on the discharge chute. These unique design features lead to high mechanical reliability, high efficiency and result in very low maintenance. The Drum is driven by a 50-HP, cradle chain drive. A unique spoke type tire mounting allows for thermal expansion of drum to prevent distortion. Trunnions are hardened to RC 50.

**Baghouse**—A 28,000 CFM Baghouse comes complete with 630-14 ounce woven Nomex bags with a 5.75:1



air-to-cloth ratio. Top bag removal provides for ease of replacement. Bag cleaning is accomplished by a pulse jet system with the air supplied

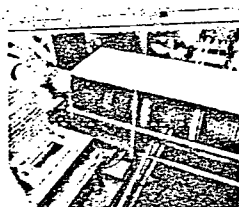
by a 30 HP screw compressor. The baghouse is 100% seal welded to prevent outside air leaks. A 75 HP exhaust fan and automatically controlled multi-louvered opposed-blade



air damper controls the gas volume. When an over temperature condition exists, a by-pass damper system allows by-passing the bag chamber completely. Fines are collected by a screw conveyor exiting the hopper through a rotary air lock and returned to the drum by a 12 TPH dust blower system. The dust is mixed with the liquid asphalt as it re-enters the drum, preventing it from becoming re-entrained into the air stream (U.S. Patent No. 4,103,305).

**surge bin & control house**

The Surge Bin and Control House is self-erecting and comes with a triple axle assembly. In traveling position the drag chain and bin are lowered on the portable frame. Preparation for start-up consists of backing the unit into position, hookup of power, cable connections and raising the bin and drag conveyor simultaneously into the operating position by a 3 HP

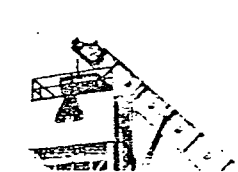


motor driven winch. The base of the trailer frame is plated giving a spread footing, thereby eliminating the need for foundations.

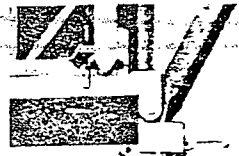
**Batcher**—A 50 cu. ft. batcher with twin discharge gates is attached to the discharge end of the drag conveyor.



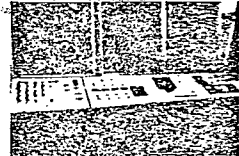
**Drag Flight Conveyor**—The 250-TPH 15" wide drag flight conveyor is self-supporting and is totally enclosed with hinged top covers for ease of service and inspection. Conveyor bolts and sides are lined with 1/2" sectioned N-Hard bolt-in wear plates. A segmented 28" chrome-plated head sprocket is designed for long life and ease of replacement.



**Surge Bin & Weigh System**—The bin has a capacity of 50 tons (100 lb per ft<sup>3</sup> material). The hopper is equipped with dual discharge gates 15" wide and 4'-8" long for quick truck loading. The entire bin is supported by four load cells which weigh the entire bin and contents. A micro processor attached to the load cells automatically dispenses mix into the truck. The operator punches into the keyboard the account number, truck number, tons desired and hits a start button. The unit closes the batcher, opens silo discharge gates, dispenses requested amount into the truck and automatically closes the gates.



**Control House**—The 10'-0" x 10'-0" control room offers a 350° commanding view of all operations from a seated position at the control panels. The air conditioned and heated control house contains the automatic burner control, stop-start station, cold feed controls, baghouse controls and micro processor. The micro-



processor weighs aggregate, weighs aggregate with proper amount of asphalt, compensates for moisture and loads trucks. The control house is completely prewired. Power and control hookups between modules are the only preparation before start-up.



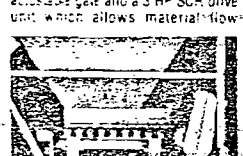
**cold feed**

The Cold Feed unit is mounted on a tandem axle. The only preparation for start-up is leveling the unit on timber footings, power and control cable connections and extending the collecting belt conveyor from its accordion-folded-traveling position to the operating position over the scalping screen. The large 9'-0" x 11'-0"

top opening allows for ease of loading.

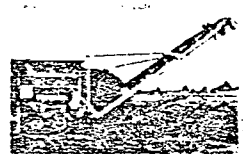
**Bulkhead**—The built-in bulkhead allows you to immediately build your loading ramp as soon as the unit is in place on the timber foundation.

**Feeder Belts**—Each bin is equipped with a 24" feeder belt assembly with adjustable gate and a 3 HP SCR drive unit which allows material flow



adjustments from 0 to 165 TPH. A control system allows total and proportional control of the material. Each belt feeder is equipped with a motor, switch and alarm and also a belt speed sensor and indicator.

**Collecting Conveyor**—The 30" collecting conveyor is driven by a 10 HP



motor and has deep 35" troughing idlers. A hand-operated winch quickly extends the discharge section from its accordion-folded position to the operating position.



**asphalt heater**

A completely portable combined fuel oil, liquid asphalt storage tank and direct fired heater makes up 1 module. Leveling on timber foundations, plug-in of cable connections and hookup of preassembled asphalt fuel oil, air and hot oil lines. A lift is necessary before start-up.

**Tank**—The 18,000 gallon asphalt storage tank is separate from the 12,000 gallon fuel oil tank. The fuel oil tank is double wall insulated but the asphalt tank is also 100% insulated with glass wool insulation. Automatic features include level indicators, auto temperature controls, jacketed asphalt piping, asphalt pump and 1" two-way lock-off valves. The bio is attached so the liquid asphalt



never be lowered below the fire line and a safety limit switch prevents burner from operating when valves are positioned to empty tank.

**Burner**—A 1,500,000 BTU/hr automatic oil burner direct fires the 20" diameter two pass fire tube

Hot Oil System—Hot oil for heating lines is supplied by a scavenger oil system consisting of a heated heating coils submerged in an asphalt tank above the fire tube. An air labor pump and expansion tank.



**STEC INDUSTRIES, INC.**

P.O. BOX 2787 • 4101 JEROME AVENUE  
CHATTANOOGA, TENNESSEE 37407 • 615/867-4210

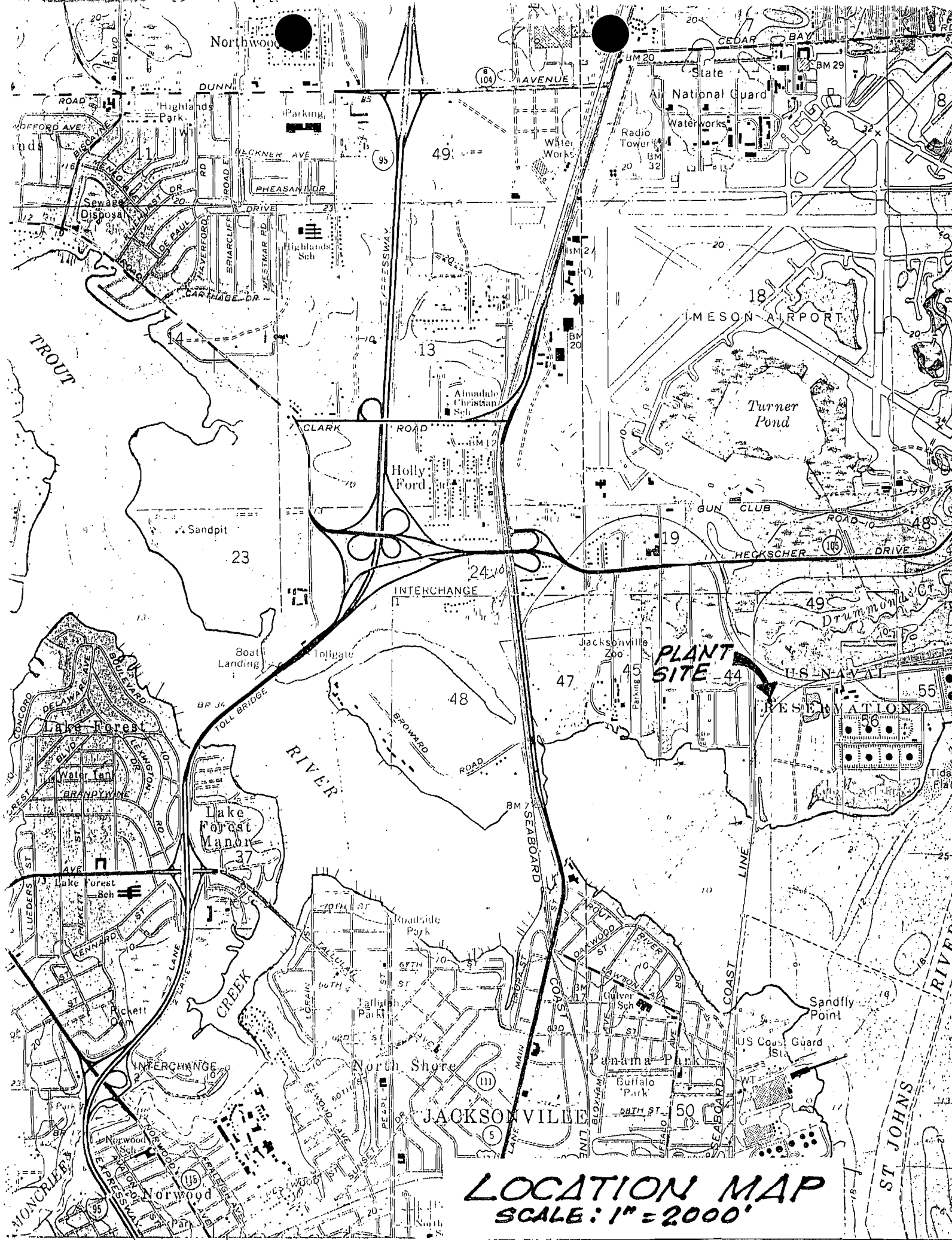
EQUIPMENT IDENTIFICATION

- ① FOUR (4) COLD FEED BINS WITH/BELT FEEDERS
- ② AGGREGATE GATHERING CONVEYOR
- ③ SCALPING SCREEN - 2 DECK
- ④ SLINGER CONVEYOR
- ⑤ AGGREGATE WEIGH BRIDGE
- ⑥ AUTOMATIC OIL BURNER
- ⑦ FUEL OIL PUMP
- ⑧ FUEL OIL STORAGE TANK
- ⑨ 6' x 27' DRUM MIXER
- ⑩ AIR DUCT - DRUM MIXER TO BAGHOUSE
- ⑪ BAG HOUSE
- ⑫ MODULATING AIR DAMPER
- ⑬ EXHAUST STACK
- ⑭ EXHAUST FAN
- ⑮ BAGHOUSE HOPPER WITH/GATHERING SCREW
- ⑯ ROTARY FEEDER - AIR LOCK
- ⑰ DUST BLOWER PACKAGE
- ⑱ COLLECTED DUST & CONVEYING AIR RECEIVER
- ⑲ AIR COMPRESSOR
- ⑳ ASPHALT HEATER - STORAGE TANK
- ㉑ ASPHALT SUPPLY PUMP
- ㉒ ASPHALT METERING SYSTEM
- ㉓ DRAG CHAIN CONVEYOR
- ㉔ DRAG DISCHARGE BATCHER
- ㉕ HOT MIX SURGE BIN
- ㉖ LOAD CELL - WEIGHOUT SYSTEM
- ㉗ CONTROL HOUSE

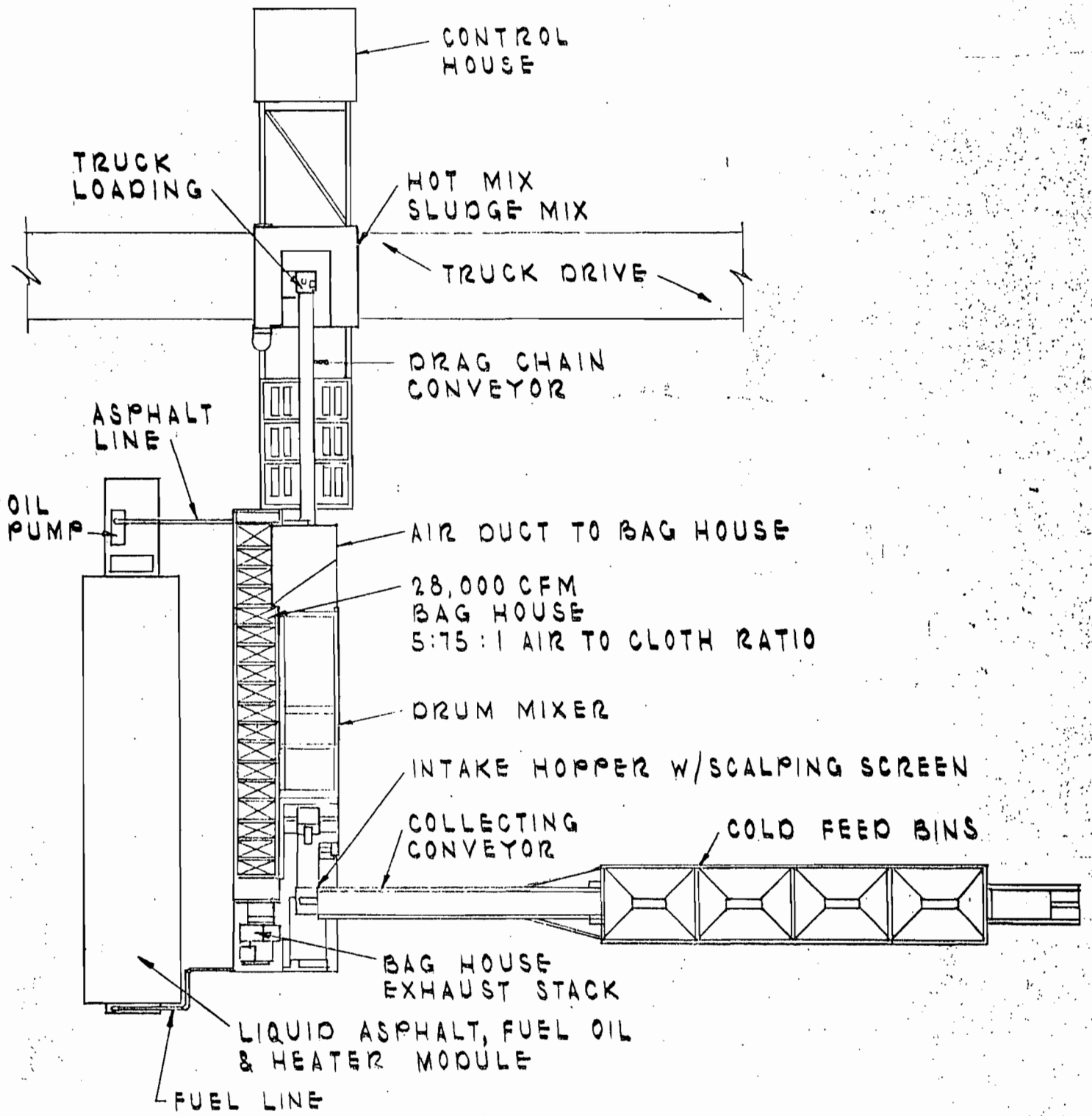
DISCHARGE & PRODUCT TRANSFER POINTS

- A AGGREGATE STOCK PILES
- B OVERSIZE REJECT
- C DRUM MIXER - AGGREGATE INLET
- D DRUM MIXER - FINES & ASPHALT DISCHARGE
- E DRUM MIXER - HOT MIX DISCHARGE
- F TRUCK LOADING
- G EXHAUST GAS DISCHARGE
- H DRAG CONVEYOR BY-PASS





**LOCATION MAP**  
**SCALE: 1" = 2000'**



## PLANT PLOT PLAN

SCALE:  $\frac{1}{16} = 1'-0"$



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RING DISTANCES(KM)= 0.25 0.50 0.75 1.00 42.00

STACK # 1--STACK 1

STACK	MONTH	EMISSION RATE (GMS/SEC)	HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (M/SEC)	TEMP (DEG.K)	VOLUMETRIC FLOW (M**3/SEC)
1	ALL	0.6200 PART.MATTER 1.5400 SO <sub>2</sub>	4.73	0.79	26.70	450.00	13.09

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PLANT NAME: DICKERSON ASPHALT      POLLUTANT: PART      EMISSION UNITS: GM/SEC      AIR QUALITY UNITS: GM/M<sup>3</sup>  
 MAXIMUM MEAN CONCN= 2.5528E-07      DIRECTION= 4      DISTANCE= 0.5 KM  
 YEAR= 72      = 0.26  $\mu\text{g}/\text{m}^3$

RANGE	ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR				
	0.3 KM	0.5 KM	0.8 KM	1.0 KM	42.0 KM
1	4.85063E-09	1.38412E-07	1.48937E-07	1.39984E-07	3.46180E-09
2	5.61942E-08	1.63965E-07	1.70089E-07	1.56928E-07	2.93503E-09
3	8.34527E-08	2.29507E-07	2.15496E-07	2.03705E-07	6.85402E-09
4	1.16367E-07	2.5284E-07	2.44599E-07	2.23336E-07	7.35669E-09
5	1.04350E-07	2.08607E-07	1.95869E-07	1.76010E-07	4.57156E-09
6	9.62338E-08	1.93682E-07	1.81381E-07	1.61271E-07	3.82280E-09
7	8.97430E-08	1.72659E-07	1.56475E-07	1.34171E-07	2.14564E-09
8	6.07156E-08	1.37453E-07	1.16389E-07	9.80753E-08	1.55900E-09
9	5.01566E-08	1.25830E-07	1.12543E-07	9.59760E-08	1.57489E-09
10	6.01528E-08	1.25841E-07	1.09262E-07	9.11039E-08	1.98028E-09
11	7.28343E-08	1.49552E-07	1.31821E-07	1.12247E-07	3.77451E-09
12	7.54800E-08	1.43359E-07	1.46142E-07	1.24278E-07	3.81550E-09
13	6.27160E-08	1.40152E-07	1.29419E-07	1.14219E-07	3.51177E-09
14	5.28033E-08	1.74849E-07	1.14341E-07	9.77150E-08	2.83375E-09
15	5.30055E-08	1.11514E-07	1.01311E-07	8.96748E-08	2.41337E-09
16	6.33947E-08	1.38775E-07	1.31080E-07	1.14967E-07	2.77422E-09
17	7.37334E-08	1.74824E-07	1.71059E-07	1.50652E-07	2.66642E-09
18	7.44003E-08	1.95795E-07	1.97810E-07	1.76313E-07	4.83044E-09
19	6.30276E-08	1.56272E-07	1.56275E-07	1.40644E-07	3.34280E-09
20	5.91742E-08	1.40180E-07	1.34684E-07	1.19569E-07	3.23574E-09
21	5.50192E-08	1.57005E-07	1.63613E-07	1.51042E-07	3.72234E-09
22	5.65959E-08	1.43731E-07	1.74645E-07	1.65178E-07	5.60197E-09
23	6.65012E-08	1.77850E-07	1.85707E-07	1.71496E-07	4.01577E-09
24	7.84398E-08	2.11502E-07	2.21307E-07	2.05215E-07	4.87739E-09
25	7.42237E-08	1.64639E-07	2.10303E-07	2.00565E-07	5.58970E-09
26	6.68022E-08	1.62699E-07	1.65521E-07	1.57587E-07	4.16616E-09
27	6.25023E-08	1.63663E-07	1.88356E-07	1.58513E-07	4.00566E-09
28	6.03184E-08	1.43399E-07	1.42506E-07	1.31847E-07	3.57362E-09
29	6.25267E-08	1.22924E-07	1.29195E-07	1.19019E-07	3.78010E-09
30	6.21805E-08	1.46204E-07	1.46148E-07	1.35019E-07	4.16746E-09
31	4.86064E-08	9.48854E-08	6.59934E-08	9.05048E-08	4.87767E-09
32	2.68556E-08	7.68412E-08	7.34072E-08	7.15671E-08	2.82200E-09
33	2.47659E-08	5.72134E-08	5.82003E-08	5.59984E-08	3.04379E-09
34	2.87552E-08	7.26660E-08	7.30629E-08	6.71052E-08	2.69181E-09
35	3.64218E-08	9.46011E-08	9.69922E-08	9.14216E-08	5.33879E-09
36	4.91286E-08	1.40324E-07	1.48830E-07	1.35672E-07	4.15310E-09

$$\begin{aligned}
 \text{MAX ANNUAL SO}_2 \text{ IMPACT} &= \frac{1.54 \text{ g/sec SO}_2}{0.63 \text{ g/sec Part}} \times 2.55 \times 10^{-7} \\
 &= 0.62 \mu\text{g}/\text{m}^3
 \end{aligned}$$

# Best Available Copy

PLANT NAME: DICKERSON ASPHALT      POLLUTANT: PART      EMISSION UNITS: GM/SEC      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 24-HOUR CONC= 4.4961E-06      DIRECTION= 24      DISTANCE= 0.8 KM      DAY=311  
 YEAR= 72      = 4.5 µg/m<sup>3</sup>

RANGE	HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.3 KM	0.5 KM	0.8 KM	1.0 KM	
1	1.0903E-06 (212)	2.8941E-06 (13)	3.1234E-06 (13)	2.7210E-06 (13)	1.4009E-07 (22)
2	1.7124E-06 (107)	3.9201E-06 (13)	3.7965E-06 (13)	3.0498E-06 (13)	5.8575E-08 (57)
3	1.1642E-06 (211)	2.4724E-06 (10)	2.6264E-06 (10)	2.2247E-06 (10)	2.9717E-07 (54)
4	2.1430E-06 (107)	1.7342E-06 (98)	3.1633E-06 (105)	2.5534E-06 (105)	1.3621E-07 (348)
5	2.4002E-06 (211)	3.4402E-06 (211)	2.7639E-06 (211)	2.3374E-06 (211)	7.2664E-08 (265)
6	1.6027E-06 (221)	1.8745E-06 (176)	2.1533E-06 (177)	1.9634E-06 (177)	5.3127E-08 (86)
7	1.3478E-06 (209)	1.6905E-06 (209)	1.7953E-06 (130)	1.6822E-06 (130)	5.1410E-08 (45)
8	2.1666E-07 (163)	1.4309E-06 (331)	1.5392E-06 (331)	1.2971E-06 (331)	8.1664E-08 (167)
9	1.4529E-06 (250)	1.7005E-06 (259)	1.8031E-06 (331)	1.8271E-06 (331)	7.2013E-08 (174)
10	1.0885E-06 (250)	1.5062E-06 (173)	1.3971E-06 (173)	1.1891E-06 (173)	9.2327E-08 (60)
11	1.5361E-06 (137)	2.6419E-06 (50)	2.2855E-06 (50)	1.6774E-06 (173)	2.1421E-07 (269)
12	1.5674E-06 (137)	4.0124E-06 (50)	4.0349E-06 (50)	3.4367E-06 (50)	2.7863E-07 (303)
13	1.3090E-06 (50)	2.3479E-06 (50)	1.8359E-06 (50)	1.6472E-06 (50)	1.5043E-07 (316)
14	2.0041E-07 (109)	1.7756E-06 (108)	1.5766E-06 (35)	1.5224E-06 (35)	9.8969E-08 (20)
15	2.1493E-07 (210)	1.8144E-06 (312)	2.0017E-06 (313)	1.8317E-06 (313)	9.8567E-08 (300)
16	1.5961E-06 (104)	2.1261E-06 (194)	1.9305E-06 (65)	1.5597E-06 (65)	1.0862E-07 (154)
17	1.6922E-06 (104)	3.4604E-06 (351)	4.0219E-06 (351)	2.4722E-06 (351)	6.4215E-08 (65)
18	2.1767E-06 (193)	2.9252E-06 (193)	3.1715E-06 (15)	2.9517E-06 (15)	1.4369E-07 (253)
19	1.6134E-06 (192)	2.1095E-06 (192)	2.4797E-06 (25)	2.2747E-06 (25)	7.3587E-08 (233)
20	1.1074E-06 (142)	2.2819E-06 (189)	2.0319E-06 (189)	1.5652E-06 (189)	8.2019E-08 (279)
21	2.0647E-07 (147)	2.9878E-06 (147)	3.0758E-06 (147)	2.7575E-06 (147)	1.7466E-07 (263)
22	1.3321E-06 (230)	2.3375E-06 (192)	2.1333E-06 (294)	2.0349E-06 (251)	6.1266E-08 (244)
23	1.3466E-06 (192)	2.2603E-06 (192)	2.7019E-06 (41)	2.4855E-06 (41)	1.0051E-07 (329)
24	1.5624E-06 (203)	3.7519E-06 (311)	4.4959E-06 (311)	4.1463E-06 (311)	6.6711E-08 (167)
25	1.4070E-06 (203)	2.7252E-06 (132)	2.8256E-06 (132)	2.5545E-06 (132)	1.0557E-07 (252)
26	1.3743E-06 (255)	2.2937E-06 (163)	2.7073E-06 (163)	2.3651E-06 (163)	2.1117E-07 (345)
27	1.1629E-06 (168)	2.5007E-06 (170)	2.4553E-06 (170)	2.2567E-06 (169)	1.4561E-07 (250)
28	1.1593E-06 (164)	2.7874E-06 (144)	2.3174E-06 (164)	1.7648E-06 (164)	6.4761E-08 (257)
29	1.4181E-06 (202)	1.7336E-06 (127)	2.3703E-06 (133)	1.9358E-06 (173)	1.1161E-07 (155)
30	1.4895E-06 (119)	1.6429E-06 (119)	1.5719E-06 (206)	1.3144E-06 (134)	1.7809E-07 (161)
31	1.6393E-06 (119)	2.3945E-06 (123)	2.1639E-06 (126)	1.6776E-06 (126)	1.7069E-07 (160)
32	9.4462E-07 (164)	1.6530E-06 (171)	1.2445E-06 (171)	1.0226E-06 (171)	1.3268E-07 (272)
33	9.9161E-07 (171)	1.6349E-06 (171)	1.2801E-06 (171)	8.5384E-07 (171)	1.6549E-07 (21)
34	1.3198E-06 (171)	2.1964E-06 (171)	1.5893E-06 (171)	1.1354E-06 (324)	1.6045E-07 (354)
35	7.1671E-07 (347)	1.5235E-06 (347)	1.7588E-06 (347)	1.4707E-06 (347)	1.6795E-07 (87)
36	1.1778E-06 (214)	2.3934E-06 (41)	2.2366E-06 (61)	1.7538E-06 (41)	1.7472E-07 (102)

MAX 24-HR SO<sub>2</sub> IMPACT =  $\frac{1.54}{0.63} \times 4.5$   
 = 11.0 µg/m<sup>3</sup>

# Best Available Copy

PLANT NAME: DICKERSON ASPHALT      POLLUTANT: PART      EMISSION UNITS: GW/SEC      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM 24-HOUR CONC= 2.5262E-06      DIRECTION= 4      DISTANCE= 0.5 KM      DAY=172  
 YEAR= 72

RANGE	SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.3 KM	0.5 KM	0.8 KM	1.0 KM	42.0 KM
1	1.0823E-06 (214)	1.4024E-05 (212)	1.8786E-05 (10)	1.8520E-05 (10)	1.0057E-07 (214)
2	1.0453E-06 (17)	2.7569E-05 (4)	3.3254E-06 (4)	2.9163E-06 (4)	4.5564E-08 (28)
3	1.1277E-06 (107)	2.0149E-05 (76)	2.9833E-06 (76)	1.9421E-06 (29)	1.3737E-07 (252)
4	1.8344E-06 (172)	2.5262E-05 (172)	3.0859E-06 (98)	2.3101E-06 (98)	1.3213E-07 (349)
5	1.5072E-06 (176)	2.4520E-05 (98)	2.2984E-06 (105)	1.9404E-06 (98)	6.4722E-08 (206)
6	1.4468E-06 (104)	1.8677E-05 (177)	1.7674E-06 (179)	1.6954E-06 (98)	7.5155E-08 (293)
7	1.2128E-06 (111)	1.4439E-05 (120)	1.5716E-06 (181)	1.5490E-06 (181)	4.3437E-08 (187)
8	9.5227E-07 (210)	1.7497E-05 (135)	1.1496E-06 (63)	1.2906E-06 (53)	7.4033E-08 (260)
9	9.7755E-07 (182)	1.2771E-05 (173)	1.5226E-06 (44)	1.5488E-06 (44)	5.0257E-08 (155)
10	1.7657E-06 (157)	1.3174E-05 (50)	1.1629E-06 (331)	1.1301E-06 (173)	2.8666E-08 (231)
11	1.3414E-06 (50)	2.2524E-05 (33)	2.0632E-06 (172)	1.6748E-06 (50)	8.4466E-08 (327)
12	1.1327E-06 (217)	1.8154E-05 (175)	1.9777E-06 (51)	1.8678E-06 (51)	1.9506E-07 (354)
13	1.0872E-06 (138)	1.5659E-05 (103)	1.7456E-06 (5)	1.4679E-06 (35)	2.5536E-08 (327)
14	7.5112E-07 (243)	1.4437E-05 (325)	1.5136E-06 (5)	1.4077E-06 (5)	9.3959E-08 (51)
15	9.7626E-07 (184)	1.2244E-05 (142)	1.2727E-06 (85)	1.1051E-06 (25)	5.9510E-08 (309)
16	1.2179E-06 (142)	2.0135E-05 (42)	1.4568E-06 (313)	1.5019E-06 (325)	4.6839E-08 (23)
17	1.2308E-06 (193)	2.1957E-05 (194)	2.1576E-06 (16)	1.6141E-06 (116)	1.3029E-07 (254)
18	1.2115E-06 (145)	2.4727E-05 (116)	2.2729E-06 (193)	1.3790E-06 (116)	4.6001E-08 (139)
19	1.2747E-06 (142)	2.2437E-05 (25)	1.4915E-06 (334)	2.0176E-06 (334)	4.8071E-08 (553)
20	1.3447E-06 (147)	1.4916E-05 (148)	1.4393E-06 (148)	1.3712E-06 (148)	7.9552E-08 (243)
21	9.2614E-07 (142)	1.7712E-05 (49)	1.4554E-06 (192)	1.7051E-06 (192)	6.7136E-08 (251)
22	9.5584E-07 (156)	1.5292E-05 (230)	1.2755E-06 (275)	1.9042E-06 (294)	5.2484E-09 (339)
23	1.0253E-06 (155)	2.0292E-05 (41)	2.1182E-06 (294)	1.3425E-06 (42)	7.3059E-08 (121)
24	1.4617E-06 (132)	2.0312E-05 (284)	2.6676E-06 (284)	2.2490E-06 (294)	9.6423E-08 (17)
25	1.3777E-06 (191)	2.4533E-05 (203)	2.4455E-06 (276)	2.4532E-06 (343)	1.3297E-07 (265)
26	1.7102E-06 (158)	1.4081E-05 (170)	2.2309E-06 (170)	1.9593E-06 (170)	1.2056E-07 (226)
27	9.3202E-07 (156)	2.2477E-05 (163)	2.1624E-06 (163)	1.3563E-06 (170)	2.5110E-08 (347)
28	9.8619E-07 (202)	1.6075E-05 (165)	1.3453E-06 (165)	1.7458E-06 (145)	9.9775E-08 (355)
29	2.7224E-07 (123)	1.5949E-05 (267)	1.7345E-06 (120)	1.4585E-06 (120)	1.1440E-07 (272)
30	1.1314E-06 (164)	1.4427E-05 (268)	1.5592E-06 (119)	1.3000E-06 (128)	1.1250E-07 (21)
31	1.0244E-06 (164)	1.6680E-05 (165)	1.2427E-06 (165)	9.1331E-07 (301)	1.2307E-07 (61)
32	9.6033E-07 (171)	1.2524E-05 (365)	1.1017E-06 (365)	8.8766E-07 (171)	1.1076E-07 (20)
33	6.9127E-07 (156)	9.4222E-07 (305)	7.9175E-07 (20)	7.1417E-07 (20)	9.8609E-08 (113)
34	6.1759E-07 (110)	1.4507E-06 (324)	1.4420E-06 (324)	1.1146E-06 (171)	1.6697E-07 (23)
35	6.8793E-07 (101)	1.8925E-05 (324)	1.4599E-06 (324)	1.1187E-06 (324)	1.1551E-07 (231)
36	1.0082E-06 (195)	1.4421E-05 (172)	1.7644E-06 (318)	1.5949E-06 (318)	

PLANT NAME: DICKERSON ASPHALT      POLLUTANT: PART      EMISSION UNITS: GM/SEC      AIR QUALITY UNITS: GM/M\*\*2  
 YEARLY MAXIMUM      3-HOUR CCNC= 1.5128E-05      DIRECTION= 4      DISTANCE= 0.3 KM      DAY=107      TIME PERIOD= 4  
 YEAR= 72

RANGE	3-HOUR CONCENTRATION AT EACH RECEPTOR				
	HIGHEST 0.3 KM	0.5 KM	0.8 KM	1.0 KM	42.0 KM
1	4.90443E-05 (212.4)	9.69007E-06 (214.6)	7.77377E-06 (15.4)	7.85205E-06 (10.4)	6.18745E-07 (141.7)
2	6.85429E-06 (167.6)	1.07922E-05 (13.4)	1.05327E-05 (13.4)	8.68833E-06 (4.8)	3.52348E-07 (25.5)
3	7.11637E-06 (211.5)	7.11637E-06 (67.5)	8.29122E-06 (87.5)	6.07478E-06 (10.7)	8.81522E-07 (54.2)
4	1.51282E-05 (107.4)	1.36175E-05 (172.3)	1.05802E-05 (30.6)	5.80522E-06 (30.6)	1.05559E-06 (249.2)
5	1.11282E-05 (211.4)	1.22197E-05 (211.6)	1.05337E-05 (211.6)	7.97222E-06 (211.6)	5.82533E-07 (205.8)
6	8.00242E-06 (221.5)	8.27457E-06 (221.5)	7.17922E-06 (74.5)	6.97599E-06 (103.1)	6.51299E-07 (85.7)
7	7.35491E-06 (184.5)	8.58137E-06 (242.4)	7.82962E-06 (242.4)	5.25622E-06 (105.4)	4.02755E-07 (45.3)
8	6.21742E-06 (210.4)	9.23197E-06 (231.5)	1.00537E-05 (331.5)	6.25972E-06 (331.5)	5.23222E-07 (260.2)
9	7.77462E-06 (259.4)	6.30937E-06 (44.5)	7.23657E-06 (91.5)	6.25972E-06 (331.5)	4.75037E-07 (174.2)
10	6.41727E-06 (137.4)	7.36757E-06 (50.3)	6.62937E-06 (50.3)	5.68727E-06 (50.3)	7.37437E-07 (60.7)
11	5.44457E-06 (137.4)	1.29507E-05 (85.6)	6.82497E-06 (53.5)	7.56577E-06 (53.5)	6.42357E-07 (260.3)
12	7.43827E-06 (137.4)	1.13967E-05 (51.1)	1.06677E-05 (50.1)	6.37277E-06 (50.1)	1.34227E-06 (303.3)
13	4.34827E-06 (50.4)	9.78227E-06 (50.4)	7.08557E-06 (50.4)	5.25457E-06 (35.1)	9.67547E-07 (316.7)
14	4.53747E-06 (51.5)	7.64707E-06 (51.5)	6.73577E-06 (5.4)	5.83687E-06 (5.4)	6.05367E-07 (20.7)
15	5.23427E-06 (327.4)	7.64307E-06 (85.7)	7.92367E-06 (85.7)	6.46577E-06 (85.7)	6.33127E-07 (300.1)
16	7.24847E-06 (184.5)	5.11077E-06 (65.6)	7.69777E-06 (65.6)	7.07097E-06 (65.6)	6.04667E-07 (354.5)
17	7.20217E-06 (163.5)	9.09167E-06 (261.4)	6.45957E-06 (16.1)	7.17787E-06 (351.3)	4.21367E-07 (68.5)
18	6.80327E-06 (193.4)	9.17057E-06 (193.4)	8.79757E-06 (16.3)	7.63547E-06 (16.3)	1.31107E-06 (283.5)
19	6.70777E-06 (135.4)	8.30997E-06 (15.4)	7.65917E-06 (16.4)	6.55467E-06 (91.5)	5.68737E-07 (333.7)
20	6.22667E-06 (135.4)	1.05877E-05 (189.6)	7.62307E-06 (189.6)	6.46977E-06 (225.8)	5.39857E-07 (117.1)
21	4.80227E-06 (147.6)	1.00687E-05 (147.6)	8.91757E-06 (147.6)	7.02717E-06 (342.3)	1.39517E-06 (243.5)
22	6.50227E-06 (237.5)	8.41427E-06 (285.3)	8.21957E-06 (285.3)	7.68857E-06 (285.3)	4.05437E-07 (241.7)
23	7.03737E-06 (192.4)	9.79027E-06 (192.4)	7.99337E-06 (147.2)	6.22147E-06 (147.2)	4.37537E-07 (201.1)
24	9.74507E-06 (132.4)	9.44507E-06 (132.4)	8.41427E-06 (35.6)	7.59167E-06 (35.6)	7.05277E-07 (147.2)
25	9.14607E-06 (113.5)	1.11277E-05 (171.2)	1.14027E-05 (171.2)	6.05777E-06 (171.2)	8.32657E-07 (352.3)
26	9.40457E-06 (168.5)	9.33507E-06 (201.4)	6.76707E-06 (163.3)	6.21607E-06 (163.3)	1.47947E-06 (345.1)
27	9.00157E-06 (155.5)	1.18197E-05 (171.3)	1.11517E-05 (171.3)	8.77437E-06 (171.3)	1.06507E-06 (260.5)
28	5.41747E-06 (202.4)	6.72907E-06 (202.4)	5.85327E-06 (155.4)	5.56667E-06 (155.4)	7.55607E-07 (287.5)
29	9.80497E-06 (202.4)	6.12567E-06 (125.4)	5.36337E-06 (147.6)	7.03167E-06 (167.6)	8.90597E-07 (155.2)
30	9.80497E-06 (119.4)	7.01407E-06 (119.4)	6.80937E-06 (145.6)	6.18577E-06 (126.6)	1.14057E-06 (161.2)
31	6.56477E-06 (119.4)	1.05717E-05 (125.5)	7.71527E-06 (155.6)	5.57117E-06 (155.6)	9.52627E-07 (160.2)
32	6.56477E-06 (165.4)	8.11127E-06 (171.6)	6.19337E-06 (171.6)	4.85037E-06 (20.4)	7.36157E-07 (61.2)
33	5.41747E-06 (165.4)	6.00907E-06 (165.4)	4.21727E-06 (297.4)	3.66037E-06 (4.2)	6.52277E-07 (21.1)
34	5.33027E-06 (171.8)	1.02707E-05 (171.8)	7.63597E-06 (171.8)	5.56687E-06 (324.4)	7.88827E-07 (113.2)
35	5.11047E-06 (347.4)	1.02707E-05 (347.4)	7.89627E-06 (347.4)	6.73697E-06 (347.4)	1.28507E-06 (87.2)
36	6.43677E-06 (213.4)	1.19547E-05 (172.1)	1.02227E-05 (172.1)	8.41587E-06 (341.1)	7.93097E-07 (102.1)

MAX 3-HR SO<sub>2</sub> IMPACT =  $\frac{154}{0.63} > 15.1$   
 = 36.9 μg/m<sup>3</sup>



# Best Available Copy

PLANT NAME: DICKERSON ASPHALT      POLLUTANT: PART      EMISSION UNITS: GM/SEC      AIR QUALITY UNITS: GM/M<sup>3</sup>  
 YEARLY SECOND MAXIMUM      3-HOUR CONC      1.1707E-05      DIRECTION=      S      DISTANCE=      0.5 KM      DAY=211      TIME PERIOD= 4  
 YEAR= 72

DATE	SECOND HIGHEST		3-HOUR CONCENTRATION AT EACH RECEPTOR							
	0.2 KM	0.5 KM	0.2 KM	0.5 KM	1.0 KM	42.0 KM				
12	8.7288E-06	(214. 7)	7.7953E-06	( 89. 5)	7.0973E-06	(214. 6)	6.1724E-06	( 13. 2)	6.0352E-07	( 22. 8)
13	4.4517E-06	(107. 4)	1.3570E-06	( 13. 5)	1.0269E-06	( 41. 8)	4.3245E-06	( 13. 4)	2.4859E-07	( 57. 1)
14	7.0012E-06	( 87. 6)	9.1667E-06	( 76. 6)	7.5701E-06	( 72. 8)	4.1373E-06	( 5. 2)	7.5763E-07	(209. 1)
15	7.5319E-06	(172. 3)	1.1752E-06	( 95. 2)	1.0654E-06	(172. 3)	6.1954E-06	( 4. 4)	7.7368E-07	( 53. 3)
16	9.1571E-06	(221. 8)	1.1717E-06	(211. 4)	7.3964E-06	(211. 4)	6.4776E-06	(136. 1)	4.5871E-07	( 25. 1)
17	6.5646E-06	(104. 6)	7.3963E-06	(176. 4)	6.7804E-06	(179. 2)	5.7496E-06	( 10. 8)	6.1672E-07	(293. 1)
18	6.8430E-06	(212. 5)	7.3507E-06	(239. 4)	6.5553E-06	(105. 4)	5.2075E-06	(242. 4)	3.0345E-07	(261. 1)
19	6.1248E-06	( 93. 6)	7.1323E-06	(135. 5)	6.7927E-06	(185. 6)	5.1498E-06	(185. 6)	3.0336E-07	(232. 1)
20	6.6602E-06	(237. 8)	8.7422E-06	(233. 5)	7.2104E-06	( 44. 5)	5.7121E-06	( 53. 6)	4.0553E-07	(185. 1)
21	4.4517E-06	(107. 4)	4.6444E-06	(251. 5)	6.7927E-06	(185. 6)	4.4237E-06	(173. 3)	6.5438E-07	(231. 6)
22	6.6602E-06	(237. 8)	7.1775E-06	( 81. 6)	7.6433E-06	( 83. 4)	5.7499E-06	( 80. 6)	7.0502E-07	(289. 2)
23	6.6602E-06	(237. 8)	6.4278E-06	(215. 5)	8.8707E-06	( 50. 3)	7.1242E-06	( 80. 2)	6.3365E-07	(363. 7)
24	6.6602E-06	(237. 8)	6.4278E-06	(215. 5)	6.5313E-06	( 50. 3)	5.1444E-06	(357. 7)	6.6425E-07	(143. 2)
25	4.4517E-06	(107. 4)	6.7432E-06	(204. 4)	6.4231E-06	(202. 4)	5.3436E-06	(280. 6)	6.5058E-07	(316. 6)
26	4.4517E-06	(107. 4)	6.7432E-06	(204. 4)	6.4165E-06	(313. 4)	4.8377E-06	(309. 6)	6.5456E-07	( 51. 7)
27	4.4517E-06	(107. 4)	7.1669E-06	(194. 5)	6.4349E-06	( 10. 2)	5.5764E-06	(274. 5)	6.5417E-07	(194. 8)
28	4.4517E-06	(107. 4)	6.4337E-06	( 18. 1)	6.2457E-06	( 16. 2)	7.1442E-06	( 16. 2)	3.0252E-07	(144. 2)
29	4.4517E-06	(107. 4)	6.4337E-06	(145. 4)	8.1123E-06	( 64. 1)	7.4729E-06	( 59. 1)	1.0625E-06	(254. 1)
30	4.4517E-06	(107. 4)	7.0261E-06	(145. 5)	7.0463E-06	( 29. 7)	6.2364E-06	( 25. 6)	5.3175E-07	(139. 2)
31	4.4517E-06	(107. 4)	7.7477E-06	(131. 6)	6.6593E-06	(226. 6)	5.2424E-06	(189. 6)	4.4558E-07	(154. 2)
32	4.4517E-06	(107. 4)	7.7337E-06	(130. 6)	7.5523E-06	(342. 3)	6.7525E-06	(147. 0)	6.1640E-07	(338. 7)
33	4.4517E-06	(107. 4)	7.3333E-06	(231. 6)	6.7823E-06	(115. 6)	6.4515E-06	(275. 8)	6.8640E-07	(123. 2)
34	4.4517E-06	(107. 4)	8.4573E-06	(147. 6)	7.4063E-06	( 47. 1)	5.0993E-06	( 41. 7)	4.0551E-07	(344. 7)
35	4.4517E-06	(107. 4)	7.4555E-06	(114. 6)	7.4099E-06	(264. 7)	6.8242E-06	(311. 2)	5.1871E-07	(144. 7)
36	4.4517E-06	(107. 4)	6.4772E-06	(203. 5)	6.3133E-06	(276. 4)	7.0213E-06	(276. 4)	4.6356E-07	( 66. 7)
37	4.4517E-06	(107. 4)	6.3133E-06	(166. 5)	6.3703E-06	(152. 4)	5.0624E-06	(163. 5)	1.0200E-06	(263. 7)
38	4.4517E-06	(107. 4)	1.0102E-06	(127. 5)	9.0453E-06	(127. 5)	7.3245E-06	(254. 7)	5.6379E-07	(225. 3)
39	4.4517E-06	(107. 4)	6.4222E-06	(154. 3)	5.5189E-06	(254. 6)	4.6511E-06	(165. 4)	6.6032E-07	(247. 2)
40	4.4517E-06	(107. 4)	7.6411E-06	(203. 4)	7.5357E-06	(127. 5)	6.1719E-06	(171. 4)	7.9820E-07	(355. 3)
41	4.4517E-06	(107. 4)	7.6402E-06	(303. 4)	6.6923E-06	(104. 6)	6.0535E-06	(134. 4)	8.9807E-07	(272. 3)
42	4.4517E-06	(107. 4)	7.6463E-06	(152. 6)	7.6463E-06	(123. 5)	5.2634E-06	(125. 4)	8.1032E-07	(161. 1)
43	4.4517E-06	(107. 4)	7.6463E-06	(152. 6)	6.8401E-06	(363. 8)	4.7255E-06	(365. 4)	6.1564E-07	( 1. 8)
44	4.4517E-06	(107. 4)	4.1333E-06	( 31. 4)	4.1333E-06	( 31. 4)	3.1517E-06	(196. 4)	7.6008E-07	(345. 8)
45	4.4517E-06	(107. 4)	6.8917E-06	( 1. 8)	6.8917E-06	(224. 4)	5.4135E-06	(171. 8)	7.7468E-07	(354. 7)
46	4.4517E-06	(107. 4)	5.8388E-06	( 37. 3)	5.8388E-06	(301. 3)	5.1470E-06	(301. 8)	1.0600E-06	(322. 3)
47	4.4517E-06	(107. 4)	6.7555E-06	( 61. 4)	6.4511E-06	( 41. 4)	7.7282E-06	(172. 1)	6.0413E-07	(112. 2)

SUMMARY OF AIR QUALITY  
IMPACT OF PROPOSED  
DICKERSON ASPHALT PLANT

<u>POLLUTANT</u>	<u>FDER AIR QUALITY STD.</u>	<u>ALLOWABLE CLASS II PSD INCREMENT</u>	<u>CALCULATED IMPACT OF PROPOSED SOURCE</u>
PARTICULATE MATTER			
ANNUAL	60 $\mu\text{g}/\text{m}^3$	19 $\mu\text{g}/\text{m}^3$	0.3 $\mu\text{g}/\text{m}^3$
24-HOUR*	150	37	4.5
 SO <sub>2</sub>			
ANNUAL	60	20	0.6
24-HOUR*	265	91	11.0
3-HOUR*	1300	512	36.9

\* Can be exceeded once per year

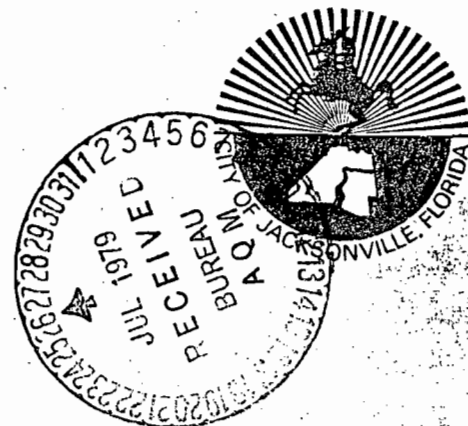


*Steve S.*

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

July 24, 1979



Mr. William Lindler, Vice Pres.  
DICKERSON, INC.  
P. O. Box 40949  
Jacksonville, Florida 32203

RE: CONSTRUCTION PERMIT APPLICATION

Dear Mr. Lindler:

The permit application for construction of the new asphalt batch plant located on Heckscher Drive is pending the results of a CRSTER computer model for an eight(8) hour average impact of total suspended particulates. When the computer run is received, you may publish a public notice in the newspaper. After thirty(30) days, the processing of the permit application will be resumed and completed shortly thereafter. However, before construction can begin, a PSD permit must be obtained from the Environmental Protection Agency as per Section 165 of the Clean Air Act as amended in August 1977.

A recent plant inspection revealed that a relocatable asphalt plant has been constructed on site and is in an operable condition. Please be advised that the same requirements apply to construction and PSD permits for this relocatable plant as well as the permanent plant.

To avoid further enforcement action being taken for the construction of the portable plant, submit a construction permit application by August 6, 1979.

If you have any questions, please call me at 633-3303.

Very truly yours,

E. P. Balducci,  
Pollution Control  
Assistant Engineer

EPB/jg

Enclosure: Notice to Correct  
(July 30, 1979)





APPLICATION INSTRUCTIONS

THIS APPLICATION IS SUBJECT TO REJECTION UNLESS ALL REQUIRED  
INFORMATION IS SUBMITTED

1. ATTACH DETAILED ENGINEERING DRAWINGS OF SOURCE(S), PROCESS(ES) AND COLLECTION DEVICE(S) AS REQUESTED IN EACH SECTION. IF MULTIPLE SOURCES OR DEVICES, USE ADDENDUM SHEETS AS NECESSARY.
2. Submit application, detailed engineering drawings, specifications and other supporting data and documents in TRIPLICATE.
3. Attach additional sheets as necessary to complete any portion of the application.
4. The application MUST BE SIGNED by the RESPONSIBLE INDIVIDUAL of the company that is to PURCHASE AND OPERATE the facilities for which a Permit is applied.
5. ALL APPLICANTS MUST COMPLETE THE FIRST PAGE AND SECTIONS I AND VI.
6. If an Incinerator, Fuel Burning Source, Wet Collection Device or Dry Collection Device is to be installed and operated, COMPLETE SECTIONS II, III, IV or V respectively.
7. All applications should be mailed to:  
North Carolina Department of Natural and Economic Resources  
Office of Water and Air Resources  
Air Quality Division  
P. O. Box 27687  
Raleigh, North Carolina 27611

NORTH CAROLINA  
BOARD OF WATER AND AIR RESOURCES  
Raleigh

APPLICATION FOR A "PERMIT"  
To Construct and Operate Air Pollution Abatement Facilities and/or Emission Sources  
Three Copies to be Submitted  
Fourth Copy Should be Retained by Applicant

To: Board of Water and Air Resources  
P. O. Box 27687  
Raleigh, North Carolina 27611

Date: 13 JAN 75

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, application

is hereby made by DICKERSON INC  
(Name of Company, Establishment, Town, Etc.) (Include Division or Plant Name in Addition to Parent

Company if Applicable) in the County of UNION at STALLINGS, NC.  
(Street and City or Town Address of Plant or Facility)  
for issuance of a "Permit" to construct and operate air pollution abatement facilities and/or emissions sources at above location as specified in the accompanying drawings, specifications, and other pertinent data:

1. Nature of Operation Conducted at the Above Facility: Production of Asphalt Mix
2. Description of Process(es) Whose Emission(s) is/are to be Controlled by the Facility or Source(s) Which is/are to be Constructed or Altered. (Complete Section I) PLANT IS EQUIPPED WITH A DRY TYPE CYCLONE AND A BATHOUSE (PULSE TYPE)

3. Furnish Type and Narrative Description of Proposed Control Device(s). (Complete Appropriate Supplemental Data Sheets for Control Device to be Installed and/or Operated. Include Make and Model Number of Control Device(s) and Number of Identical Units).  
Cyclone - Cedar Rapids  
Bayhouse - H&B Mod # DB 7-8910

4. Contaminant Emitted:	Weight Rate of Emissions (lb/hr):		Control Efficiency (%):	
	Without Control Device	With Control Device	Without Control Device	With Control Device
<u>Dust</u>	<u>N/A</u>	<u>NOT KNOWN</u>		
		<u>till test is</u>		
		<u>MADE</u>		

5. Name and Address of Engineering Firm that Prepared Plans: DICKERSON INC  
MONROE NC 28110

6. Ultimate Disposition of Collected Pollutants: Used in process
7. Date on Which Facilities are to be Completed and in Operation: April, 19 75

8. Indicate Period of Time for Which Facilities are Estimated to be Adequate: 12 Years
9. Estimate Cost of Air Pollution Control Device \$ 100,000

10. Hours Facility is Operated Per Year: 2000
- Name: DAVID GORDON  
(Responsible Individual of Company Purchasing/Operating Facility...PLEASE PRINT)
- Mailing Address: P.O. Box 400  
MONROE INC  
28110

Signature and Title: \_\_\_\_\_ Telephone Number: 704/289-3411

1. GENERAL DATA FOR PROCESSES

\*Attach detailed process engineering drawings, equipment drawings and flow diagrams for the process(es) or source(s) being constructed or altered.

Name of Process: Asphalt Mix

Total Weight of Materials Entering this Process: 100 lb/hr or ton/hr

Volume and Temperature of Air Flow Entering Control Device: 40,000 CFM @ 300 °F

Volume and Temperature of Effluent at Discharge Point to Atmosphere: 30,000 CFM @ 150 °F

Pollutant(s) to be Controlled: Dust

Height of Process Stack or Vent Above Ground Level 30 ft. Inside area of Stack 71 ft<sup>2</sup>.

Particulate Emission Rate (Before Control) NOT KNOWN lb/hr

Particle Size Distribution: 0-5µ \_\_\_\_\_%, 5-10µ \_\_\_\_\_%, 10-20µ \_\_\_\_\_%, 20-30µ \_\_\_\_\_%, 30-40µ \_\_\_\_\_%, 40-50µ \_\_\_\_\_%, >50µ \_\_\_\_\_%

Gaseous Emission(s): NOT KNOWN Name (Chemical Formula) µg/m<sup>3</sup>, PPM. or lb/hr

Neg.

II. SUPPLEMENTARY DATA FOR INCINERATORS (Including Conical Incinerators)

Circle Type of Waste or Indicate Composition: Type 0 Type I Type II Type III Type IV

Combustible: \_\_\_\_\_% Non-Combustible: \_\_\_\_\_% Moisture: \_\_\_\_\_% Heat Value: \_\_\_\_\_ BTU/lb

Total Waste Generated Per Day: \_\_\_\_\_ lb.

Hours Incinerator will be Operated: \_\_\_\_\_ hrs/day

Design Capacity for Above Waste: \_\_\_\_\_ lbs/hr

Manufacturer and Model Number; Approximate Cost: \_\_\_\_\_

Primary Chamber Volume: \_\_\_\_\_ ft.<sup>3</sup>

Secondary Chamber Volume: \_\_\_\_\_ ft.<sup>3</sup>

Air Requirements: Total Excess Air \_\_\_\_\_% Draft: Natural \_\_\_\_\_ Induced \_\_\_\_\_ Other \_\_\_\_\_

Overfire Air: \_\_\_\_\_ cfm Underfire Air: \_\_\_\_\_ cfm

Is there an Electronically Controlled, Exhaust Gas Temperature Modulated, Damper Installed on the

Conical Incinerator for: Overfire Air Supply \_\_\_\_\_, Underfire Air Supply \_\_\_\_\_, Dome \_\_\_\_\_ Temperature Set Point \_\_\_\_\_

Flame Port Temperature: \_\_\_\_\_ °F Secondary Chamber Temperature: \_\_\_\_\_ °F

Is there a Continuous Exhaust Gas Temperature Recorder? Yes \_\_\_\_\_ No \_\_\_\_\_

Stack:

Inside Area \_\_\_\_\_ ft.<sup>2</sup> Height \_\_\_\_\_ ft. Gas Velocity \_\_\_\_\_ ft/sec Temperature \_\_\_\_\_ °F Fan Capacity \_\_\_\_\_ cfm Stack Lined? \_\_\_\_\_

Is there a Wet Scrubber?

Yes \_\_\_\_\_ No \_\_\_\_\_ Flow Rate of H<sub>2</sub>O into Scrubber \_\_\_\_\_ gal/min Temperature Before Scrubber \_\_\_\_\_ °F

Aux. Fuel: Oil \_\_\_\_\_ Gas \_\_\_\_\_ Other \_\_\_\_\_ Burner Rating: Primary Chamber \_\_\_\_\_ BTU/hr Secondary Chamber \_\_\_\_\_ BTU/hr Stack \_\_\_\_\_ BTU/hr

Primary Burner: Is there a Preheat Timer? Yes \_\_\_\_\_ No \_\_\_\_\_ Preheating Time: \_\_\_\_\_ min.

Secondary Burner or Afterburner: Is there a Timer? Yes \_\_\_\_\_ No \_\_\_\_\_ Length of Time Burner is Operated \_\_\_\_\_ min.

Is the Timer Reset by Charging Door? Yes \_\_\_\_\_ No \_\_\_\_\_ Other Mode of Burner Control \_\_\_\_\_

Type of Feed: Manual \_\_\_\_\_ Automatic \_\_\_\_\_ If Automatic, Describe \_\_\_\_\_

Distance from Incinerator to Nearest Structure(s) in which People Live and/or Work. \_\_\_\_\_ ft.

Signature: \_\_\_\_\_ Title: \_\_\_\_\_



11. SUPPLEMENTARY DATA FOR FUEL BURNING DEVICES

\*Attach detailed dimensioned drawing or sketch showing internal features of dryers, wood or coal fired boilers, and recovery boilers.

Type of Fuel Burning Source DRYER Stack Height Above Ground Level 30 ft. Inside Area of Stack 71 ft<sup>2</sup>

Make and Model Number ~~10028EP~~ Cedar Rapids Volume of Furnace \_\_\_\_\_ ft<sup>3</sup>

Specify Actual Amount of Each Fuel Used in Above Source (s):

Coal \_\_\_\_\_ lb/hr; Oil Grade 4 Amount \_\_\_\_\_ gal/hr, at 138,000 BTU/gal and 7.4 lb/gal or \_\_\_\_\_ lb/hr

Wood \_\_\_\_\_ lb/hr; Natural Gas \_\_\_\_\_ SCF/hr, at \_\_\_\_\_ BTU/SCF; Other \_\_\_\_\_  
(Specify type, amount and heating value)

Specify Maximum Rating for Each Fuel Burning Source:

Coal \_\_\_\_\_ Oil \_\_\_\_\_ Wood \_\_\_\_\_ Natural Gas \_\_\_\_\_ Other \_\_\_\_\_

Maximum Sulfur Content of Fuel \_\_\_\_\_ % Specify Standby Fuel \_\_\_\_\_ Maximum % Sulfur \_\_\_\_\_

Type of Solid Fuel Burning Equipment Used: Hand Fired \_\_\_\_\_ Spreader Stoker \_\_\_\_\_ Underfeed Stoker \_\_\_\_\_ Chain Gate \_\_\_\_\_  
Traveling Gate \_\_\_\_\_ Pulverizer \_\_\_\_\_ Cyclone Furnace \_\_\_\_\_ Other (Specify) \_\_\_\_\_

Ash Content of Fuel: \_\_\_\_\_ Specify Method and Schedule of Tube Cleaning, if Applicable:  
Coal \_\_\_\_\_ % Wood \_\_\_\_\_ % Other \_\_\_\_\_ % Lancing \_\_\_\_\_ Tube Blowing \_\_\_\_\_ Schedule \_\_\_\_\_

Emission Control Equipment (Describe in Detail in Sections IV and V)

Collection Device: Wet \_\_\_\_\_ Dry \_\_\_\_\_ Steam Injection \_\_\_\_\_ Air Injection \_\_\_\_\_ Is Collected Flyash Rejected? \_\_\_\_\_  
Draft on Boiler (Natural \_\_\_\_\_ Induced \_\_\_\_\_) \_\_\_\_\_ cfm at \_\_\_\_\_ °F  
Total Number of Fuel Burning Sources Within Property Boundaries: \_\_\_\_\_

Maximum Capacity Rating, by Type, for All Fuel Burning Units Excluding that Itemized Above: (Total Like Units)

Coal \_\_\_\_\_ lb/hr Wood \_\_\_\_\_ lb/hr Oil \_\_\_\_\_ gal/hr Natural Gas \_\_\_\_\_ SCF/hr

IV. SUPPLEMENTARY DATA FOR WET COLLECTION DEVICES

\*Attach detailed engineering drawings of the control device and particle size versus removal efficiency curves.

Liquid Scrubbing Medium and Additives: \_\_\_\_\_

Total Liquid Injection Rate (Include Recirculated and Make-up Rates) \_\_\_\_\_ gal/min or gal/1000 ft<sup>3</sup>

Operating Pressure Drop Across Device \_\_\_\_\_ in H<sub>2</sub>O

ANSWER FOLLOWING QUESTIONS FOR SPECIFIC DEVICE:

VENTURI SCURBBER: Inlet Area \_\_\_\_\_ in<sup>2</sup> Throat Area \_\_\_\_\_ in<sup>2</sup> Throat Velocity \_\_\_\_\_ ft/sec

GRAVITY SPRAY CHAMBER: Number of Nozzles \_\_\_\_\_ Liquid Droplet Size \_\_\_\_\_ u Co-Current \_\_\_\_\_ Countercurrent \_\_\_\_\_

WET CYCLONE: Body Diameter \_\_\_\_\_ in Length \_\_\_\_\_ in  
PACKED TOWER OR PLATE TOWER: Cross-Sectional Area \_\_\_\_\_ ft<sup>2</sup> Type of Plate \_\_\_\_\_  
Inlet Area \_\_\_\_\_ in<sup>2</sup> Number of Nozzles \_\_\_\_\_ Length \_\_\_\_\_ ft Depth of Packing \_\_\_\_\_ ft  
Outlet Area \_\_\_\_\_ in<sup>2</sup> Number of Plates \_\_\_\_\_ Type of Packing \_\_\_\_\_

OTHER WET COLLECTION DEVICES: GIVE COMPLETE DESCRIPTION INCLUDING DESIGN PARAMETERS AND DETAILED ENGINEERING DRAWINGS.

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

V. SUPPLEMENTARY DATA FOR DRY COLLECTION DEVICES

\*Attach detailed engineering drawings of the control device and particle size versus removal efficiency curves.

BAGHOUSES: Cloth Area 5935 ft<sup>2</sup>  
Number of Compartments 5  
Method of Cleaning Pulse  
Time Between Cleaning 7 mins. hrs Sec

Bag Material 14 oz Nomex  
Pressure - Drop Total 4-6 in H<sub>2</sub>O  
Air-to-Cloth Ratio 6.74 ft/min

ELECTROSTATIC PRECIPITATORS:

GENERAL:

Effective Area of Grounded Collector Plates \_\_\_\_\_ ft<sup>2</sup>  
Number of Compartments or Chambers \_\_\_\_\_ Number of Cells per Compartment \_\_\_\_\_  
Electrical Field Gradient at the Discharge or Emitting Electrodes \_\_\_\_\_ KV/in  
Average Electrical Field Gradient at the the Grounded Collecting Electrodes \_\_\_\_\_ KV/in  
Fields of Treatment \_\_\_\_\_ Potential Applied to Emitting Wires \_\_\_\_\_ KV

SINGLE STAGE TYPE:

Distance Between Emitting Wires and Collecting Plates \_\_\_\_\_ in.  
Number of Isolatable Bus Sections \_\_\_\_\_ Corona Power \_\_\_\_\_ Watts/1000 cfm

TWO STAGE TYPE:

Distance Between First Stage Emitting Electrodes and Field Receiver Electrodes (Ground) \_\_\_\_\_ in  
Potential Applied to Second Stage Emitting Plates \_\_\_\_\_ KV  
Distance Between Second Stage Emitting Plates and Grounded Collection Plates \_\_\_\_\_ in

CYCLONES/MULTICYCLONES:

Simple Cyclone

Diameter 120 in  
Inlet Dimensions 4' x 4'  
Outlet Dimensions 4' x 4'  
Pressure Drop 2-4 in H<sub>2</sub>O  
Number of Cyclones 1

Multicyclone

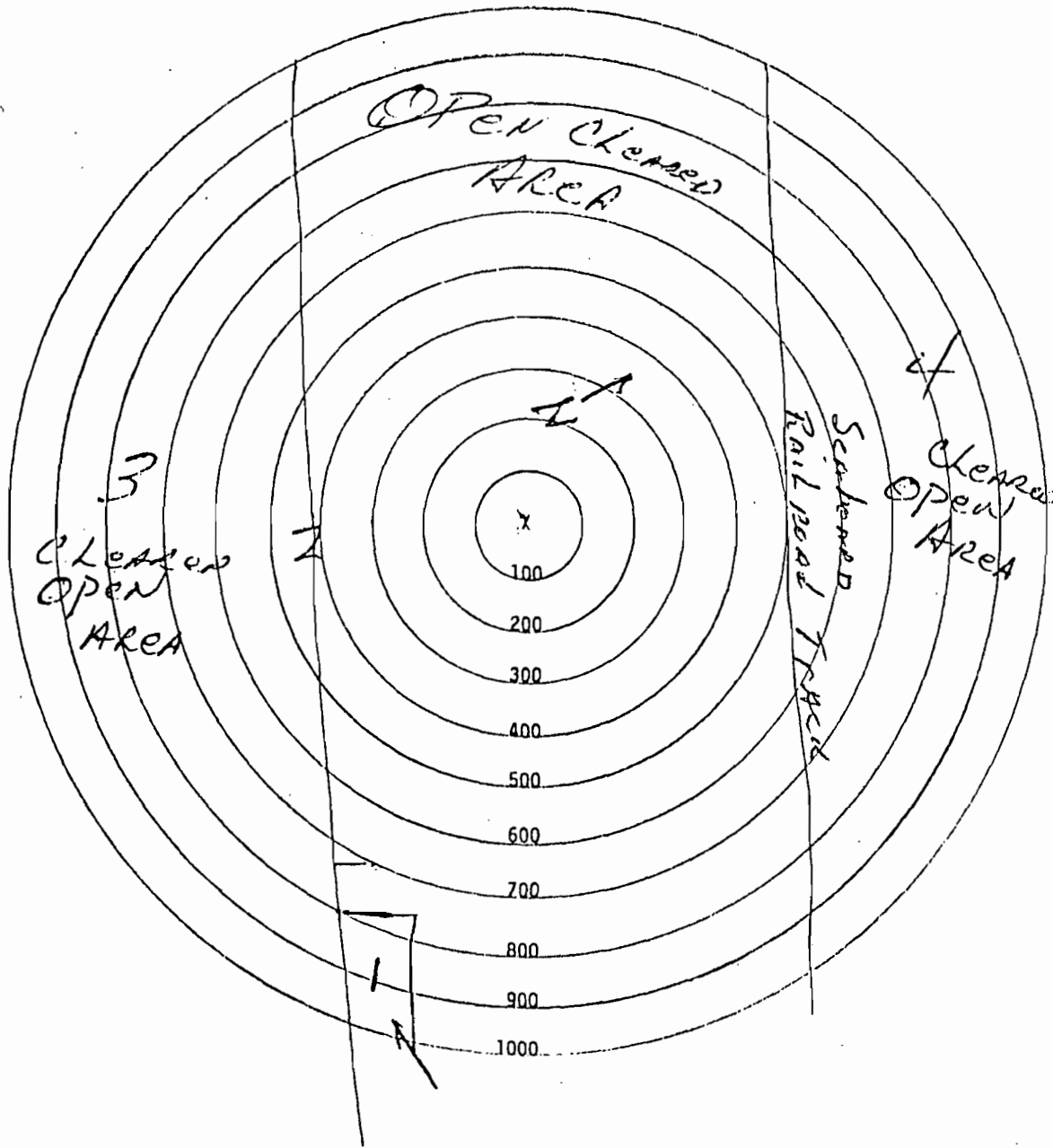
Diameter \_\_\_\_\_ in  
Inlet Dimensions of Individual Cyclone \_\_\_\_\_  
Outlet Dimensions of Individual Cyclone \_\_\_\_\_  
Pressure Drop \_\_\_\_\_ in H<sub>2</sub>O  
Number of Cyclones \_\_\_\_\_

OTHER DRY COLLECTION DEVICES: GIVE COMPLETE DETAILED ENGINEERING DESCRIPTION AND DRAWINGS.

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

VI. AREA DIAGRAM



Owner DICKERSON INC  
 Location Stallings N.C.  
 (Give Street Address)

INSTRUCTIONS:

1. Show all surrounding buildings and roads within 1000 feet of subject equipment which is located at center of circles.
2. Indicate location and type of building by the use of small numbered circles with the description below.
3. Show roads as lines representing the road edges. Indicate street names and highway numbers.
4. Show wooded or cleared areas by approximate boundary lines and the words "woods", "cleared", "cornfield", etc.
5. Indicate direction of north by arrow.

CODE	DESCRIPTION
①	Building - Storing Garbage Trucks
②	Road - S.R. 1368
③	Open field
④	Property owned by Dickerson
⑤	
⑥	
⑦	
⑧	
⑨	
⑩	

EXAMPLE      ① Church  
                          ② Residence

X Indicates location of equipment.

NORTH CAROLINA DEPARTMENT OF WATER AND AIR RESOURCES

Air Quality Division

P. O. Box 27048

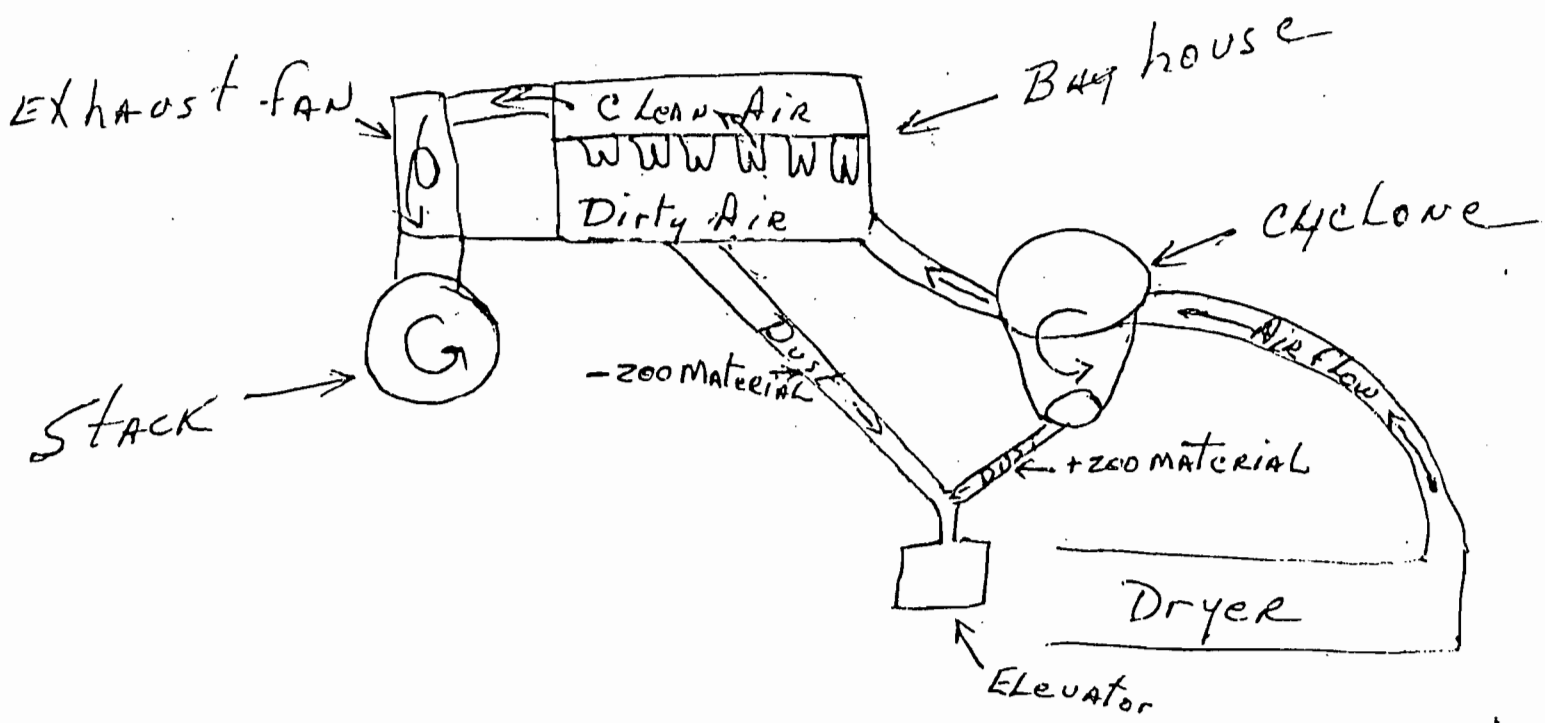
Raleigh, North Carolina 27611

(Three Copies To Be Submitted)  
(Fourth Copy Should Be Retained By Applicant)

SUPPLEMENTAL DATA SHEET FOR GAS CLEANING EQUIPMENT

1. Owner of Installation <b>DICKERSON INC. PLANT 17</b>			
Mailing Address <b>MONROE N.C. 28110 UNION</b>			
City	State	Zip Code	County
2. Type of Gas Cleaning Equipment: Bagfilter <input checked="" type="checkbox"/> Multicyclone <input type="checkbox"/> Cyclone <input checked="" type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Scrubber <input type="checkbox"/> Settling Chamber <input type="checkbox"/> Other <input type="checkbox"/>			
3. Name of Manufacturer <b>H &amp; B</b>		Model Number <b>DB 7-8910</b>	
4. Application for (boiler, cement kiln, etc.) <b>Aggregate Dryer</b> Specify			
5. The following information shall be based upon conditions as they exist when the gas cleaning equipment is operated at rated capacity. All volumes should be calculated at 70°F and 29.92 in. Hg.			
Total Gas Volume through cleaning unit	<b>≈ 40,000</b>	cu. ft./min.	
Inlet Gas Temperature	<b>300</b>	°F	
Inlet Gas Pressure	<b>Approximately 10</b>	in. of water	
Inlet Dust Loading	<b>NOT KNOWN</b>	Gr./ft. <sup>3</sup>	
Inlet Contaminant Gas Concentration	<b>NOT KNOWN</b>	lbs./hr.	
Outlet Gas Temperature	<b>150°</b>	°F	
Outlet Dust Loading	<b>.03</b>	Gr./ft. <sup>3</sup>	
Outlet Contaminant Gas Concentration	<b>NOT KNOWN</b>	lbs./hr.	
Water Flow Rate (Wet Scrubbers)	<b>N/A</b>	Gal./min.	
Pressure Drop Across Cleaning Unit	<b>4-6</b>	in. of water	
Efficiency of Unit	<b>99</b>	%	
6. Stack Sampling To Be Conducted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> By Whom <b>ENTROPY ENVIRONMENTALIST</b> Date _____			
7. Particle Size Analysis			
Size of Dust Particles Entering Cleaning Unit	% of Total Dust	% To Be Collected	
0 to 10 Microns	_____	_____	
10 to 44 Microns	_____	_____	
Larger than 44 Microns	_____	_____	
<b>MINES ZOO MATERIAL</b>		<b>99.97</b>	

5. Show location of dust and gas cleaning equipment in the system. Draw simple sketch or flow diagram showing path of emissions from source to point of exhaust to atmosphere.



NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES

Office of Water and Air Resources

Air Quality Division

P. O. Box 27687

Raleigh, North Carolina 27611

(Three Copies To Be Submitted)  
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REQUEST FOR REGISTRATION OF AIR CONTAMINANT SOURCES

In accordance with provisions of regulations of the Board of Water and Air Resources, application is hereby made for the registration of equipment which emits contaminants into the outdoor atmosphere.

1A. DICKERSON INC PLANT #17  
Business License Name of Organization That Is To Be Registered

1B. \_\_\_\_\_  
Name (or Names) of Owner or Principal Partners Doing Business as Above Organization.

2A. Mailing Address: PO. Box 400 Monroe NC 28110  
Number Street City State Zip Code

3A. Equipment Location Address: outside Stallings NC. UNION None yet  
Number Street City Zip Code County Phone

4. Equipment To Be Registered (Check Appropriate Installation(s): Indicate number of different (nonidentical) units for each.  
Fuel Burning Equipment -----  \_\_\_\_\_  
Incinerators -----  \_\_\_\_\_  
Gas Cleaning Devices -----  1 \_\_\_\_\_  
Industrial Process or Manufacturing Equipment Asphalt Plant  
(Pulp and Paper; Textiles, Mining, Furniture & Fixtures, Metals, Etc.) Specify

5. Type Organization:  Corporation  
 Partnership  
 Individual Owner  
 Government Agency

6A. DAVID GORDON  
Signature of Responsible Member of Organization  
Type or Print Name of Signer

6B. Exec Vice Pres.  
Official Title of Signer  
13 Jan 77 704/282-3111  
Date Phone Number

Air Quality Division Use Only	DO NOT WRITE IN THIS SPACE		
	Registration Number	Coordinates	
	Date Received Regional Office	Date Received State	
	Date Applications Forwarded to Applicant	Reviewed By	Date
	Date Applications Received From Applicant	Date Applications Processed	
	Comments:		

NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES

Office of Water and Air Resources

Air Quality Division

P. O. Box 27667

Raleigh, North Carolina 27611

(Three Copies To Be Submitted)  
(Fourth Copy Should Be Retained by Applicant)

APPLICATION FOR REGISTRATION OF PROCESSING OR MANUFACTURING EQUIPMENT

1. Owner of Installation <b>DICKERSON INC Plant 17</b>		Date of Application <b>13 JAN 74</b>	DO NOT WRITE IN THIS SPACE	
Mailing Address (P. O. or St.) <b>P.O. Box 400</b>		Telephone <b>704/289-3111</b>	Date Rec. Reg.	Date Rec. State
City <b>MONROE</b>	State <b>NC</b>	Zip Code <b>28110</b>	Acknowledgements: Date _____ By: _____	
2. Applicant or Authorized Agent <b>DICKERSON INC</b>		Telephone <b>704/289-3111</b>	Reviewed By: Name _____ Date _____	
Mailing Address City State <b>SAME AS ABOVE</b>		Zip Code	Application Ret. to Applicant: Date _____ By: _____	
3. Location of Plant Operation City State Zip Code <b>Stallings NC</b>			Registration Number: R- _____	
4. Installer or Contractor (If New or Replacement) <b>DICKERSON INC</b>		Telephone <b>704/289-3111</b>	Coordinates	
Mailing Address City State Zip Code <b>P.O. Box 400 Monroe, NC. 28110</b>			Class _____	
5. Date Construction is to Start: <b>20 JAN 75</b>	Completion Date: <b>1 Apr 75</b>	Date Existing Installation Placed in Operation: _____		
6. Signature of Owner or Authorized Company Official <b>DAVID GORDON</b>		Title <b>V.P.</b>	Print or Type Name <b>DAVID GORDON</b>	
7. Type of Registration (Check One)				
Existing Installation----- <input type="checkbox"/> New Installation----- <input checked="" type="checkbox"/> Replacement----- <input type="checkbox"/> Filtration----- <input type="checkbox"/>				
Addition----- <input type="checkbox"/> Change of Ownership----- <input type="checkbox"/> Other----- <input type="checkbox"/> Specify _____				
8. Major Activity at this Location (Food, Lumber or Wood Products, Primary Metals, Printing, Paper, etc.) <b>Production of Asphalt Mix</b> Sic. No. _____ Specify				
9. Total Number of Employees at this Location (Check Range)				
Less Than 10---- <input checked="" type="checkbox"/> 10-19----- <input type="checkbox"/> 20-49----- <input type="checkbox"/> 50-99----- <input type="checkbox"/>				
100-249----- <input type="checkbox"/> 250-499----- <input type="checkbox"/> 500-999----- <input type="checkbox"/> 1,000 or More----- <input type="checkbox"/>				
10. Total Days Installation Being Registered is Normally Operated Days Per Week <b>5</b> Days Per Year <b>200</b>			10A. Number of Shifts Shifts Per Day <b>1</b>	
11. Type of Installation Being Registered: (Examples: Kiln, Cement, Lime or Calciner); (Tank: Galvanizing, Dip, etc.) (Furnace: Cupola, Crucible, Electric Induction, etc.) <b>Aggregate Dryer</b> Specify			11A. Number of Identical Units <b>2</b>	
			11B. Location in Plant: <b>Stallings NC</b>	

12. Principal Materials and Quantities Used or Consumed in the Installation Being Registered:

Principal Materials	Process Weight (Lbs./Hr.)	Quantity Per Year	Units of Consumption
Aggregate	6000	Batch 30,000/yr	Tons
Asphalt	300	Batch 1500	Tons
	Lbs./Hr.		

13. Principal Products and Quantities Produced by the Installation Being Registered:

Principal Products	Quantity Year	Units of Production
Asphalt Mix	30,000	Tons

14. Stack Information for Installation Being Registered:

Height Above Ground Level (Check Appropriate Height Range)

Not Applicable----- Less than 30 feet----- 30-49 feet----- 50-99 feet-----  
 100-149 feet----- 150-199 feet----- 200-249 feet----- 250 feet or More-----

Inside Diameter at Top 120 Inches. Exit Temperature 150 °F. Gas Velocity 40,000 Ft./Min.

Stack Use: Fuel Combustion Products----- Process Emissions----- Combined Use-----

Nearest Building or Obstruction Beyond Property Line (Example: Trees, Bridges, etc.)

Type Obstruction Building Distance 1000 feet Height 20 feet Direction SE

15. Stack Emissions Control Equipment on this Installation ONLY When Gas Cleaning Device is Utilized, "Supplemental Data Sheet For Gas Cleaning Equipment" Form AQ-5 must accompany this Application:

Gas Cleaning Device: Yes----- No----- Type Bag house  
 Specify

16. Type of Fuel Used (Process Use Only - Do Not Include Fuels Used for Indirect Heating):

Coal \_\_\_\_\_ Tons/Yr. Percent Sulfur .18 % Percent Ash \_\_\_\_\_ %  
 Oil 90,000 Gallons/Yr. Percent Sulfur ~~1.8~~ % Grade No. #2  
 Natural Gas \_\_\_\_\_ Cu. Ft./Yr. L.P. Gas \_\_\_\_\_ Other \_\_\_\_\_  
 Wood \_\_\_\_\_ Tons/Yr. Specify Kind and Amount

17. Organic Solvents Used or Produced in this Installation Only:

Are Organic Solvents Used? Yes----- No----- Are Organic Solvents Produced? Yes----- No-----

Specify Type	Principal Use	Quantity Per Day (Gallons)	
		Consumed	Produced



18. Emissions from this installation by:

- Pollutant (Specify Type)  
Example: H<sub>2</sub>S, SO<sub>2</sub>, Cl<sub>2</sub>,  
Hydrocarbons, Dust, Etc.

Actual Emissions  
(With Existing Controls)

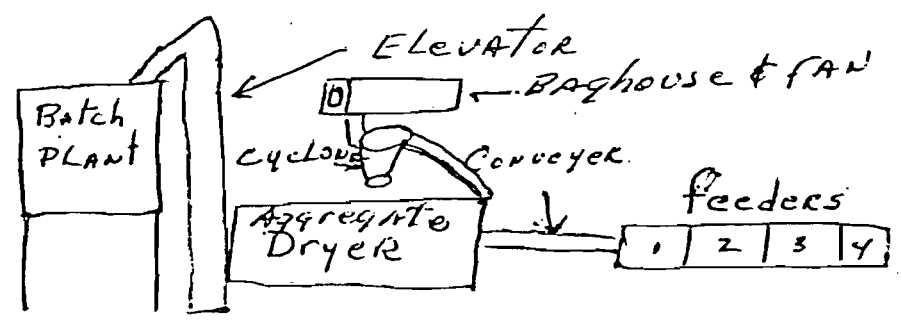
Potential Emissions  
(Without Control)

Pollutant (Specify Type)	Actual Emissions (With Existing Controls)	Potential Emissions (Without Control)
Dust	<del>20</del> 20 Lbs./Hr.	Not Known Lbs./Hr.
	Lbs./Hr.	Lbs./Hr.
	Lbs./Hr.	Lbs./Hr.
	Lbs./Hr.	Lbs./Hr.
	Lbs./Hr.	Lbs./Hr.

All Quantities Should Be Determined at Maximum Production or Capacity.

19. Give Detailed Description of This Installation. Include all raw materials, processing equipment or machinery, chemical formulas. (When applicable, and finished product including any intermediate products which may be formed.) Show all quantities under Items 12, 13 and 16. Also, show flow diagram when it will clarify the process or method of production.

Aggregate is entered to process by feeders, then conveyed to Aggregate dryer. Once in the Dryer; material is heated to 300°. This material is transferred the batch plant by an elevator. Once in the batch plant it is blended with Liquid Asphalt to produce the Asphalt Mix.



A draft is pulled thru the dryer by an Exhaust fan; which pulls Aggregate fines from the material. These fines; first go through a cyclone collector; then the other fines are collected at bag house.

Description of Installation (Continued)

DO NOT WRITE BELOW THIS LINE

Emissions in Pounds Per Hour and Pounds Per Day from this installation:

	Pounds per Hour	Pounds per Day	Annual (Pounds)
Particulate	_____	_____	_____
Sulfur Dioxide	_____	_____	_____
Oxides of Nitrogen	_____	_____	_____
Carbon Monoxide	_____	_____	_____
Hydrocarbons	_____	_____	_____
Other	_____	_____	_____