## Curle, Mary Beth

**From:** EPOST_AIR_NWD@dep.state.fl.us
**Sent:** Thursday, September 20, 2012 12:34 PM
**To:** crawson@roadsinc.com
**Cc:** dhitchcock@ascendantllc.net; Ard, Howard; EPOST_AIR_NWD
**Subject:** Project Name/Description/Facility County: ROADS INC CANTONMENT PLANT / Roads Inc Cantonment Asphalt Plant / ESCAMBIA

Dear Applicant:

Thank you for your air pollution permit application for the referenced project. We encourage direct communication with our permit processor to answer any questions that may come up during the review process. You may be contacted by our processor by e-mail or by phone. Our goal is to reduce the number of formal requests for additional information (RAIs), as well as the overall time to process your application. We appreciate your efforts to assist us by ensuring that your response to any questions or RAIs is timely, thorough and complete.

Facility Name: ROADS INC CANTONMENT ASPHALT PLANT
Project Description: Roads Inc Cantonment Asphalt Plant
Application Project No: 7775744-001-AC
Application Received Date: 09/19/2012
Permit Processor: Howard Ard
Processor Phone: 850-595-0622
Processor Email: howard.ard@dep.state.fl.us

The Department will help you navigate the permitting process and explain the permit application requirements for your facility. You may schedule a meeting or teleconference with the permitting processor as needed or simply send an email.

If you have any questions, or if you received this email in error, please contact the Permitting Processor.

Best Regards,

Florida Department of Environmental Protection
Northwest District
Air Resource Management
160 Governmental Center, Suite 308
Pensacola, FL 32502-5794
Tel. 850-595-8300

Please do not reply to this auto-generated email.

Please take a few minutes to share your comments on the service you received from the department by clicking on this link. Copy the url below to a web browser to complete the DEP survey: http://survey.dep.state.fl.us/?refemail=EPOST_AIR_NWD@dep.state.fl.us

Permitting Application - Permit Detail and Log Permit

**ARMS Facility**

POINT | AIRS ID 7775744 | STATUS U | OFFICE NWD | NW: PENSACOLA

SITE NAME ROADS INC CANTONMENT ASPHALT PLANT | COUNTY ESCAMBIA

OWNER/COMPANY ROADS INC

**Project**

AIR Permit # - - | Project # 001 | CRA Reference # 393413

Permit Office NWD (DISTRICT) | Agency Action Pending | OGC

Project Name ROADS INC CANTONMENT PLANT | Desc Roads Inc Cantonment Asphalt Plant

Type/Sub/Des AC / 1D | Source 25 tpy but less than 50 $2000 | Logged 09/20/2012

Received 09/19/2012 | Issued | Expires | Application Action NEW

Fee 2000.00 | Fee Recd 2000.00 | Dele | Override NONE

**Related Party**

Role APPLICANT | Begin 09/20/2012 | End

Name RAWSON, CODY | Company ROADS INC

Address 106 STONE BLVD

City CANTONMENT | State FL | Zip 32533 - | Country U.S.A.

Phone 850-968-0991 | Fax 850-968-0996

**Processors**

Processor ARD_H | Y | Active 09/20/2012 | Inactive | Events

Cash Receiving Application - Collection Point Log Remittance

CL AREA NWD

GRAF006A

Logged Total $18,680.00

## Collection Point Log Remittance

Remittance ID 1000341 Type * CP Received Date * 09/19/2012 Status RECEIVED

System Receipt 790300 PNR Check # * 046319 Amount * 2,000.00

SSN/FEID Name * ROADS INC OF NWF

First Middle Title Suffix

Address1 106 STONE BLVD

Address2

City CANTONMENT ST FL Zip 32533

Country Short Comments 7775744-001-AC MBC

## PAYMENT(S)

| Payment ID | Distribution CL Area | Object Code/Description | | Payment Amount | Reference# | Appl | Fund * | Grant * | Status |
|---|---|---|---|---|---|---|---|---|---|
| 1173987 | NWD | 002222 | AIR CONSTRUCT | 2,000.00 | 7775744001 | ARMS | PFTF | | COMPLETE |

COMMIT FREQUENTLY 2,000.00 Payment Total

ASCENDANT
SOLUTIONS, LLC

September 18, 2012

Mr. Armando Sarasua
Florida Department of Environmental Protection
Air Resources Management
160 Governmental Center
Pensacola, Florida 32502

Re: Air Construction Permit Application Package
Roads, Inc. Asphalt Plant
Cantonment, Escambia County, Florida

Dear Mr. Sarasua:

Please find attached two original copies of the application to construct a new asphalt plant in Cantonment, Florida, along with a check payable to the FDEP in the amount of $2,000.00. If you have any questions regarding the application, please do not hesitate to call me at (850) 232-8871 or email me at dhitchcock@ascendantllc.net .

Respectfully Submitted:
**Ascendant Solutions, LLC**

Debbie Hitchcock, P.E.
Owner/Manager

RECEIVED
SEP 19 2012
NORTHWEST FLORIDA
DEP

Roads Inc Const Permit Cvr Ltr

7775744-001-AC

# Florida Department of Environmental Protection
# Division of Air Resources Management
# Application for Air Permit – Non-Title V Source
# Construction Application

**September 2012**

**Applicant:**
**ROADS, INC.**
**CANTONMENT, FLORIDA**

**Prepared by:**

ASCENDANT SOLUTIONS, LLC

**Ascendant Solutions, LLC**
**2019 N. 12th Ave**
**Pensacola, FL 32503**

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# 1.0 INTRODUCTION

The purpose of this application is to obtain a construction permit for one hot mix asphalt plant to be located at the southwest corner of Becks Lake Road and Stone Boulevard in Cantonment, Florida. The proposed asphalt plant will be located across Stone Boulevard from the existing Roads, Inc. asphalt plant (FAC ID 7775285). The existing plant will shut down and decommissioned when the new plant begins operation.

The asphalt plant is a relocatable type designed and manufactured in its entirety by Almix. It is a new unit purchased for the site, Model Number 10048. This is a continuous mix plant with nominal capacity of 300 TPH. Fuel used in the dryer burner will be No. 2 or No. 4 fuel with maximum sulfur content of 0.6% by weight or natural gas. The liquid asphalt storage tank will be heated electronically.

This facility qualifies to be exempt from Title V air permitting under 62-213 F.A.C. because it will meet the following conditions:

- Production rate of asphaltic concrete shall not exceed 500,000 tons in any consecutive 12-month period.
- Fuel oil consumption shall not exceed 1.2 million gallons in any consecutive 12-month period.
- Fuel oil shall not exceed 1% sulfur content by weight.
- Particulate Matter (PM) emissions shall not exceed 0.04 grains/dscfu, averaged over a 3-hour period.
- Fugitive PM emissions shall be controlled in accordance with the requirements of Rule 62-296.320(4)(c).
- Visible emissions (VE) shall not be equal to greater than 20% capacity.
- The Owner/Operator shall maintain records to document the monthly and 12-month rolling totals of tons of asphaltic concrete produced, gallons of fuel oil consumed and hours of operation. Such records shall be contained for five (5) years.
- The Owner/Operator shall submit an Annual Operating Report for air pollutant emitting facility to the Florida Department of Environmental Protection (FDEP) annually pursuant to Rule 62-210.370(3).
- The Owner/Operator shall yearly submit a stack test using EPA reference Method 5 and VE test using EPA referenced Method 9 that demonstrate compliance with PM and VE standards.

The plant operates as a conventional drum mix type. Aggregate materials are transferred from a slinger conveyer into the drum. An aggregate belt scale located on the conveyor determines

the rate (weight) of combined aggregate fed into the uni-flow drum mixer. Liquid asphalt is introduced at a rate of 5% to 7% based on the weight of the aggregate. The plant will be equipped with a recycle asphalt handling system which will allow it to use a maximum of 35% recycled asphalt product (RAP). RAP is added to the drum at a point past the burner nose along with returned baghouse fines. The combined dry aggregate, RAP, and baghouse fines move through a short preheat zone to bring the RAP up to temperature and to drive off moisture. The liquid asphalt cement is injected and the combined product moves through the mixing zone to be blended together. The final product is conveyed from the drum mixer via a drag conveyor to up to three holding silos for discharge into trucks.

The emissions from the drying process are pulled by an exhaust fan through a baghouse. The captured aggregate dust is returned to the drum mixer via enclosed "screw" type conveyors for use in the final product.

The Plant and/or process will consist of the following:

1. Aggregate storage yard. Aggregate will be delivered by trucks and stored on site in storage piles. Front loaders will be used to deliver such material to aggregate storage bins.
2. Aggregate storage bin will consist of five (5) 10′ x 14′ compartments (bins). Aggregate falls onto a 36″ belt conveyor which delivers material to the aggregate screen. The aggregate screen is where oversized material is screened out; aggregate then falls onto a 30″ weigh conveyor which delivers material to the mixing/drying drum.
3. The mixing/drying drum is manufactured by Asphalt Equipment Company (Model 10048UF) and is 100″ diameter and 48′ long. It is equipped with Hauck Eco Star burner Model ESII-100B, with a maximum heat input of 100 MMBTU/HR.
4. This plant will be equipped with a Recycled Aggregate Product (RAP) system. Crushed RAP will be delivered to the site by trucks and stored in piles. A front loader will deliver the RAP to two (2) 9′ x′ 14′ storage bins, equipped with a 36″ belt conveyor that delivers the RAP to a screen where oversized material is screened out. The material is then transferred to a 24″ belt conveyor that delivers it to the drying/mixing drum. Not all mixes will contain RAP.
5. Asphaltic concrete will be received from the mixing drum into a fully enclosed included chain conveyor, which will deliver it into one of three (3) 100-ton storage silos. The silos are vertical, self-standing and equipped with truck loading facility.
6. Asphalt liquid will be delivered by tanker truck and pumped into a storage tank using electric heat to keep asphalt in liquid form. From the storage tank, liquid asphalt will be pumped into the mixing drum mixer.

7. Fuel used in the drum dryer burner will be delivered by tanker truck and stored in an on-site fuel tank or piped in, if using natural gas.
8. PM emissions created by the mixing/drying drum will be controlled by an exhaust system consisting of exhaust duct work leading to a baghouse (BH-1), exhaust blower, and vertical stack discharging air from the blower. Exhaust from the dryer drum will be intercepted by a knockout box precleaner to eliminate larger particles from the aggregate. The baghouse is manufactured by Asphalt Equipment Company, Model 62KRA. It is rated 62,000 acfm at operating temperatures of 220 – 380 °F. It will be equipped with 780 87″ long bags with total cloth area of 13,470 $ft^2$. The air to cloth ratio is 4.6 to 1; bags are made from 14 oz. virgin Nomex with 13% glass fiber. The method of cleaning is reverse air flow with a predicted pressure drop of 3″ – 5″ $H^20$. The exhaust fan is manufactured by Twin City Fan and Blower, Model 490 BCS with a 200 HP motor. The exhaust stack will be equipped with sample ports required to conduct EPA Method 5 tests. Filtrates from the baghouse will be collected by a screw conveyor and delivered back to the mixing drum.

Potential emissions are calculated based on regulated activities associated with asphalt production as follows:

**a.** ducted production emissions
**b.** production related fugitive emissions from transport of asphalt concrete from drum mix to storage silo and from silo loading operations

Fugitive PM emissions from yard storage piles and vehicular traffic are not included.

This facility is not a major source of HAPs. The facility is regulated under NSPS – 40 CFR 60, Subpart 1 (Standards of Performance for Hot Mix Asphalt Facilities) and Rule 62-210.300(3)1, F.A.C (conditional exemptions from Title V permitting).

# 2.0 POTENTIAL EMISSIONS CALCULATIONS

The proposed hot mix asphalt plant emissions are based on the following assumptions:

- Production at 300 TPH, 500,000 TPY of hot asphalt mix.
- Drum mix burner will use No. 2 or No. 4 fuel with maximum sulfur content of 0.6% or natural gas.
- Plant is capable of producing 300 TPH and its overall yearly production is limited to 500,000 TPY. Plant will also be equipped with two (2) 100-ton asphaltic concrete storage silos, with a third optional silo, so that mix production will most likely be at maximum or near maximum rated capacity of 300 TPH to save fuel. If the plant operates at 300 TPH, required hours of operation would be 500,000 / 300 = 1667 hr/yr. If the plant operates at 70% capacity, required hours of operation would be 500,000 TPY / (0.7 x 300 TPH) = 2,381 hr/yr.
- Roads, Inc. is asking for unlimited hours of operation for all aspects of the operation. However, potential emissions for asphaltic concrete production will be calculated on 2,381 hr/yr as shown above, 1.2 MM gallons/year of burned fuel or 500,000 tons of asphalt produced, whichever is applicable.

## 2.1 Ducted Production Emissions

<u>PM Emissions</u>

Assumptions:

- 14% moisture content (Bws = 0.14)
- Air flow through the process is 62,000 ACFM at 300 °F
- PM emissions are limited to 0.04 grains/DSCF
- Standard pressure and actual pressure are the same (roughly at sea level)

Convert to DSCFM:

% Dry Wt x $ft^3/min_{act}$ x ($T_{std}$°R/$T_{act}$°R)

(1 – 0.14) x 62,000 $ft^3/min_{act}$ x [(460 + 68) °R / (460 + 300) °R] = 37,043 dry $ft^3/min_{std}$ or DSCFM

**PM** = max grains/ $ft^3_{std}$ x dry $ft^3/min_{std}$
= 0.04 grains/ $ft^3_{std}$ x 37,043 dry $ft^3/min_{std}$ x 60 min/hr x 1 lb/7,000 grains = 12.7 lb/hr or 12.7 x 2,381 / 2,000 = **15.1 tons/rolling 12 months**

AP42 Table 11.1-1 provides an emission factor of 0.025 lb/t for fabric filter
Fabric Filter Emissions = emissions factor lb/tons x tons/year
0.025 lb/ton x 500,000 tons/year x 1 ton /2,000 lb = 6.25 tons/rolling 12 months

PM10 Emissions

Assumptions:

- AP42 Table 11.1-3 provides filterable PM10 emissions factor of 0.0039 lb/ton for fabric filters.
- 20% Safety Factor Increase

**PM10**
20% increase x emissions factor (lb/ton) x ton/year
= 1.2 x 0.0039 lb/ton x 500,000 ton/year x 1 ton/2,000 lb = **1.17 tons/rolling 12 months**

NOX and CO Emissions

Assumptions:

- Plant will be limited to 500,000 tons/rolling 12 months
- AP42 Table 11.1-7 lists the following emission factors for drum mix asphalt plant:
  Nox = 0.055 lb/ton for No. 2 and No. 4 fuels
  Nox = 0.026 lb/ton for natural gas
  CO = 0.13 lb/ton for all three fuel types
- 20% Safety Factor Increase

**NOX**
20% increase x highest emissions factor (lb/ton) x ton/year
= 1.2 x 0.055 lb/ton x 500,000 ton/year x 1 ton/2,000 lb = **20.6 tons/rolling 12 months**

**CO**
20% increase x emissions factor (lb/ton) x ton/year
= 1.2 x 0.13 x 500,000 ton/year x 1 ton/2,000 lb = **39 tons/rolling 12 months**

VOC Emissions

Assumptions:

- Plant will be limited to 500,000 tons/rolling 12 months
- AP42 lists 0.032 lb/ton as emission factor for all three fuel types
- 20% Safety Factor Increase

**VOC**

20% increase x emissions factor (lb/ton) x ton/year
= 1.2 x 0.032 lb/ton x 500,000 ton/year x 1 ton/2,000 lb = **9.6 tons/rolling 12 months**

SO2 Emissions

Assumptions:

- Fuel usage will be limited to 1.2 MM gallons/rolling 12 months
- AP42 Table 1.3-1 states uncontrolled fuel combustion emissions from fuel oil combustion (SCC 1-03-005-04) are:
  - SO2 = 150 S lb/1,000 gal, "S" is the sulfur content % by weight for No. 4 fuel (used in calculations)
  - SO2 = 142 S lb/1,000 gal, "S" is the sulfur content % by weight for No. 2 fuel
- 20% Safety Factor Increase

**SO2**

20% increase x emission factor (S lb/1,000 gal) x annual fuel (gal) x % sulfur content in fuel
= 1.2 x 150 S lb/1,000 gal x 1,200,000 gal x 0.006 x 1 ton/2,000 lb = **0.65 ton/rolling 12 months**

## 2.2 Production Related Fugitive Emissions

Drum Mix Plant Load-out Emissions (SCC3-05-002-14)

PM Emissions Factor (AP42 11.1.2.5)

$EF = 0.000181 + 0.00141 (-V) e^{((0.0251)(1+406) - 20.43)}$

Using asphalt loss-on heating of 0.41% and temperature of 290 °F

$EF = 0.000181 + 0.00141 (-(-0.41)) e^{((0.0251)(1+406) - 20.43)} = 0.0003$ lb/ton

**PM** = 0.0003 x 500,000 / 2,000 = **0.08 tons/rolling 12 months**

TOC Emissions Factor (AP42 11.1.2.5)

$EF = 0.01172\ (-V)\ e^{(-1.605)}$

$EF = 0.01172\ (-(-0.41))\ e^{(-1.605)} = 0.0014$ lb/ton

**TOC** = 0.0014 x 500,000 / 2,000 = **0.35 tons/rolling 12 months**

CO Emissions

AP42 11.1.2.5 - carbon monoxide emissions can be estimated by multiplying the TOC emission by 0.32 (the ratio of truck load-out CO emissions from truck load-out THC emissions).

**CO** = 0.32 x 0.35 = **0.11 tons/rolling 12 months**

VOC Emissions

AP42 Table 11.1-16 – speciation profile for load out and yard emissions is 94% VOC compound/TOC

**VOC** = 0.94 x 0.35 = **0.33 tons/rolling 12 months**

Fugitive Emissions for Aggregate Transfer from Aggregate Piles to Aggregate Bins, from Bins to Conveyor Belt and from Conveyor to Drum Mix

Assumptions:

- AP42 Table 11.12-2 (SCC 3-05-011-04, 21, 23) lists the emissions factors as:
  PM = 0.0069 lb/ton
  PM10 = 0.0033 lb/ton
- Having 3 transfers and assuming aggregate represents 90% of asphalt produced

**PM** = 3 x 0.0069 x 0.9 x 500,000 / 2,000 = **4.66 tons/rolling 12 months**

**PM10** = 3 x 0.0033 x 0.9 x 500,000 / 2,000 = **2.23 tons/rolling 12 months**

**Summary of Production Related Fugitive Emissions**

PM = 0.08 + 4.66 = 4.74 tons/rolling 12 months
PM10 = 2.23 tons/rolling 12 months
CO = 0.11 tons/rolling 12 months
VOC = 0.33tons/rolling 12 months

# FIGURES

Figure depicts conceptual facility layout; actual layout may change and will be documented in operation permit.

| | | |
|---|---|---|
| ASCENDANT SOLUTIONS, LLC | ROADS, INC.<br>PROPOSED ASPHALT PLANT<br>15 BECKS LAKE ROAD<br>CANTONMENT, FL | FIGURE<br>1 |
| | FACILITY PLOT PLAN | |

FIGURE 2 - PROCESS FLOW DIAGRAM

PLOT DATE: 08/7/12

ALmix Engineering

| | | | |
|---|---|---|---|
| DWG. DESCRIPTION | PROPOSED ASPHALT PLANT LAYOUT | | |
| CUSTOMER NAME | ROADS | DWG. NO. PP-01 | SHT 1 OF 1 / REV. 1 |

NORTH

BASE MAP FROM 1994 CANTONMENT, FL QUADRANGLE, 7.5 MINUTE SERIES (TOPOGRAPHIC)

ASCENDANT SOLUTIONS, LLC

ROADS, INC.
PROPOSED ASPHALT PLANT
15 BECKS LAKE ROAD
CANTONMENT, FL

AREA MAP WITH FACILITY LOCATION

FIGURE
3

# APPENDIX A
## Application for Air Permit – Long Form

# Department of Environmental Protection

## Division of Air Resource Management

## APPLICATION FOR AIR PERMIT - LONG FORM

### I. APPLICATION INFORMATION

**Air Construction Permit** – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

**Air Operation Permit** – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

**To ensure accuracy, please see form instructions.**

**Identification of Facility**

| | |
|---|---|
| 1. Facility Owner/Company Name: Roads, Inc. | |
| 2. Site Name: Cantonment Asphalt Plant | |
| 3. Facility Identification Number: | |
| 4. Facility Location...<br>Street Address or Other Locator: 15 Becks Lake Road Boulevard<br>City: Cantonment County: Escambia Zip Code: 32533 | |
| 5. Relocatable Facility?<br>[x] Yes [ ] No | 6. Existing Title V Permitted Facility?<br>[ ] Yes [x] No |

**Application Contact**

| |
|---|
| 1. Application Contact Name: Debbie Hitchcock |
| 2. Application Contact Mailing Address...<br>Organization/Firm: Ascendant Solutions, LLC<br>Street Address: 2019 N 12th Ave<br>City: Pensacola State: Florida Zip Code: 32503 |
| 3. Application Contact Telephone Numbers...<br>Telephone: ( 850 ) 232 - 8871 ext. Fax: ( ) - |
| 4. Application Contact E-mail Address: dhitchcock@ascendantllc.net |

**Application Processing Information (DEP Use)**

| | |
|---|---|
| 1. Date of Receipt of Application: | 3. PSD Number (if applicable): |
| 2. Project Number(s): | 4. Siting Number (if applicable): |

## APPLICATION INFORMATION

### Purpose of Application

**This application for air permit is being submitted to obtain: (Check one)**

**Air Construction Permit**

[x] Air construction permit.

[ ] Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

[ ] Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

**Air Operation Permit**

[ ] Initial Title V air operation permit.

[ ] Title V air operation permit revision.

[ ] Title V air operation permit renewal.

[ ] Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

[ ] Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)**

[ ] Air construction permit and Title V permit revision, incorporating the proposed project.

[ ] Air construction permit and Title V permit renewal, incorporating the proposed project.

**Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:**

[ ] I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

### Application Comment

The purpose of this application is to obtain a construction permit to build a new asphalt plant across Stone Boulevard from the existing asphalt plant (FAC ID 7775285). The existing asphalt plant will be decommissioned when the new plant begins operation.

## APPLICATION INFORMATION

**Scope of Application**

| Emissions Unit ID Number | Description of Emissions Unit | Air Permit Type | Air Permit Processing Fee |
|---|---|---|---|
| 001 | Asphalt Plant | AC1D | $2,000.00 |
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**Application Processing Fee**

**Check one:** [x] Attached - Amount: $2,000.00 [ ] Not Applicable

## APPLICATION INFORMATION

**Owner/Authorized Representative Statement**

**Complete if applying for an air construction permit or an initial FESOP.**

| |
|---|
| 1. Owner/Authorized Representative Name : Cody Rawson, President |
| 2. Owner/Authorized Representative Mailing Address...<br>Organization/Firm: Roads, Inc.<br>Street Address: 106 Stone Boulevard<br>City: Cantonment State: Florida Zip Code: 32533 |
| 3. Owner/Authorized Representative Telephone Numbers...<br>Telephone: ( 850 ) 968 - 0991 ext. Fax: ( 850 ) 968 - 0996 |
| 4. Owner/Authorized Representative E-mail Address: crawson@roadsinc.com |
| 5. Owner/Authorized Representative Statement:<br>*I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.*<br><br>_____ _____<br>Signature Date |

## APPLICATION INFORMATION

**Owner/Authorized Representative Statement**

**Complete if applying for an air construction permit or an initial FESOP.**

| |
|---|
| 1. Owner/Authorized Representative Name : Cody Rawson, President |
| 2. Owner/Authorized Representative Mailing Address...<br>Organization/Firm: Roads, Inc.<br>Street Address: 106 Stone Boulevard<br>City: Cantonment State: Florida Zip Code: 32533 |
| 3. Owner/Authorized Representative Telephone Numbers...<br>Telephone: ( 850 ) 968 - 0991 ext. Fax: ( 850 ) 968 - 0996 |
| 4. Owner/Authorized Representative E-mail Address: crawson@roadsinc.com |
| 5. Owner/Authorized Representative Statement:<br>*I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.*<br>CR<br>Signature 9-11-12 Date |

## APPLICATION INFORMATION

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

_____ _____

Signature Date

## APPLICATION INFORMATION

**Professional Engineer Certification**

1. Professional Engineer Name: Debra J. Hitchcock
   Registration Number: 54373
2. Professional Engineer Mailing Address...
   Organization/Firm: Ascendant Solutions, LLC
   Street Address: 2019 N 12th Ave
   City: Pensacola State: Florida Zip Code: 32503
3. Professional Engineer Telephone Numbers...
   Telephone: ( 850 ) 232 - 8871 ext. Fax: ( ) -
4. Professional Engineer E-mail Address: dhitchcock@ascendantllc.net
5. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.*

*(4) If the purpose of this application is to obtain an air construction permit (check here [x], if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature (seal) Date: 09/18/12

*Attach any exception to certification statement.

## II. FACILITY INFORMATION

## A. GENERAL FACILITY INFORMATION

**Facility Location and Type**

| | | | |
|---|---|---|---|
| 1. Facility UTM Coordinates...<br>Zone East (km)<br>North (km) | | 2. Facility Latitude/Longitude...<br>Latitude (DD/MM/SS) 30/36/44<br>Longitude (DD/MM/SS) 87/19/05 | |
| 3. Governmental Facility Code:<br>0 | 4. Facility Status Code:<br>C | 5. Facility Major Group SIC Code:<br>29 | 6. Facility SIC(s):<br>2951 |
| 7. Facility Comment :<br>See Introduction | | | |

**Facility Contact**

| |
|---|
| 1. Facility Contact Name: Cody Rawson |
| 2. Facility Contact Mailing Address...<br>Organization/Firm: Roads, Inc.<br>Street Address: 106 Stone Boulevard<br>City: Cantonment State: Florida Zip Code: 32533 |
| 3. Facility Contact Telephone Numbers:<br>Telephone: ( 850 ) 968 - 0991 ext. Fax: ( 850 ) 968 - 0996 |
| 4. Facility Contact E-mail Address: crawson@roadsinc.com |

**Facility Primary Responsible Official N/A**

**Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."**

| |
|---|
| 1. Facility Primary Responsible Official Name: |
| 2. Facility Primary Responsible Official Mailing Address...<br>Organization/Firm:<br>Street Address:<br>City: State: Zip Code: |
| 3. Facility Primary Responsible Official Telephone Numbers...<br>Telephone: ( ) - ext. Fax: ( ) - |
| 4. Facility Primary Responsible Official E-mail Address: |

## FACILITY INFORMATION

**Facility Regulatory Classifications**

**Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."**

| | |
|---|---|
| 1. ☐ Small Business Stationary Source | ☒ Unknown |
| 2. ☒ Synthetic Non-Title V Source | |
| 3. ☐ Title V Source | |
| 4. ☐ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs) | |
| 5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs | |
| 6. ☐ Major Source of Hazardous Air Pollutants (HAPs) | |
| 7. ☐ Synthetic Minor Source of HAPs | |
| 8. ☐ One or More Emissions Units Subject to NSPS (40 CFR Part 60) | |
| 9. ☐ One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60) | |
| 10. ☐ One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63) | |
| 11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5)) | |
| 12. Facility Regulatory Classifications Comment: | |

**FACILITY INFORMATION**

**List of Pollutants Emitted by Facility N/A**

| 1. Pollutant Emitted | 2. Pollutant Classification | 3. Emissions Cap [Y or N]? |
|---|---|---|
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## B. EMISSIONS CAPS N/A

**Facility-Wide or Multi-Unit Emissions Caps**

| 1. Pollutant Subject to Emissions Cap | 2. Facility-Wide Cap [Y or N]? (all units) | 3. Emissions Unit ID's Under Cap (if not all units) | 4. Hourly Cap (lb/hr) | 5. Annual Cap (ton/yr) | 6. Basis for Emissions Cap |
|---|---|---|---|---|---|
| | | | | | |
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7. Facility-Wide or Multi-Unit Emissions Cap Comment:

## C. FACILITY ADDITIONAL INFORMATION

**Additional Requirements for All Applications, Except as Otherwise Stated**

| | |
|---|---|
| 1. | Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)<br>[x] Attached, Document ID: Figure 1 [ ] Previously Submitted, Date:_____ |
| 2. | Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)<br>[x] Attached, Document ID: Figure 2 [ ] Previously Submitted, Date:_____ |
| 3. | Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)<br>[x] Attached, Document ID: Appendix B [ ] Previously Submitted, Date:_____ |

**Additional Requirements for Air Construction Permit Applications**

| |
|---|
| 1. Area Map Showing Facility Location:<br>[x] Attached, Document ID: Figure 3 [ ] Not Applicable (existing permitted facility) |
| 2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):<br>[x] Attached, Document ID: Introduction |
| 3. Rule Applicability Analysis:<br>[x] Attached, Document ID: Introduction |
| 4. List of Exempt Emissions Units:<br>[x] Attached, Document ID: Introduction [ ] Not Applicable (no exempt units at facility) |
| 5. Fugitive Emissions Identification:<br>[x] Attached, Document ID: Potential Emissions Calculations [ ] Not Applicable |
| 6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.):<br>[ ] Attached, Document ID:_____ [x] Not Applicable |
| 7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.):<br>[ ] Attached, Document ID:_____ [x] Not Applicable |
| 8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):<br>[ ] Attached, Document ID:_____ [x] Not Applicable |
| 9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):<br>[ ] Attached, Document ID:_____ [x] Not Applicable |
| 10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):<br>[ ] Attached, Document ID:_____ [x] Not Applicable |

## C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

**Additional Requirements for FESOP Applications N/A**

| |
|---|
| 1. List of Exempt Emissions Units:<br>☐ Attached, Document ID:_____ ☐ Not Applicable (no exempt units at facility) |

**Additional Requirements for Title V Air Operation Permit Applications**

| |
|---|
| 1. List of Insignificant Activities: (Required for initial/renewal applications only)<br>☐ Attached, Document ID:_____ ☐ Not Applicable (revision application) |
| 2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)<br>☐ Attached, Document ID:_____<br>☐ Not Applicable (revision application with no change in applicable requirements) |
| 3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)<br>☐ Attached, Document ID:_____<br>Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing. |
| 4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)<br>☐ Attached, Document ID:_____<br>☐ Equipment/Activities Onsite but Not Required to be Individually Listed<br>☐ Not Applicable |
| 5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)<br>☐ Attached, Document ID:_____ ☐ Not Applicable |
| 6. Requested Changes to Current Title V Air Operation Permit:<br>☐ Attached, Document ID:_____ ☐ Not Applicable |

## C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

**Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program**

1. Acid Rain Program Forms:

   Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable (not an Acid Rain source)

   Phase II $NO_X$ Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

   New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable (not a CAIR source)

**Additional Requirements Comment**

## III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application -** For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application -** For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application –** Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

**EMISSIONS UNIT INFORMATION**
**Section [ 1 ] of [ 1 ]**

## A. GENERAL EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Emissions Unit Classification N/A**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

   ☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   [X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section: Asphalt Plant

3. Emissions Unit Identification Number:

| 4. Emissions Unit Status Code: | 5. Commence Construction Date: | 6. Initial Startup Date: | 7. Emissions Unit Major Group SIC Code: |
|---|---|---|---|
| C | January 1, 2013 | | 29 |

8. Federal Program Applicability: (Check all that apply)

   ☐ Acid Rain Unit

   ☐ CAIR Unit

9. Package Unit: Asphalt Plant
   Manufacturer: Almix Model Number: 10048

10. Generator Nameplate Rating: MW N/A

11. Emissions Unit Comment: See Introduction

**EMISSIONS UNIT INFORMATION**
**Section [ 1 ] of [ 1 ]**

**Emissions Unit Control Equipment/Method:** Control 1 of 1

| |
|---|
| 1. Control Equipment/Method Description:<br>Baghouse (BH-1) is manufactured by Asphalt Equipment Company, model 62KRA |
| 2. Control Device or Method Code: 016 |

**Emissions Unit Control Equipment/Method:** Control __ of __

| |
|---|
| 1. Control Equipment/Method Description: |
| 2. Control Device or Method Code: |

**Emissions Unit Control Equipment/Method:** Control __ of __

| |
|---|
| 1. Control Equipment/Method Description: |
| 2. Control Device or Method Code: |

**Emissions Unit Control Equipment/Method:** Control __ of __

| |
|---|
| 1. Control Equipment/Method Description: |
| 2. Control Device or Method Code: |

## B. EMISSIONS UNIT CAPACITY INFORMATION
**(Optional for unregulated emissions units.)**

**Emissions Unit Operating Capacity and Schedule**

| | | |
|---|---|---|
| 1. Maximum Process or Throughput Rate: N/A | | |
| 2. Maximum Production Rate: 300 TPH | | |
| 3. Maximum Heat Input Rate: 80.5 million Btu/hr | | |
| 4. Maximum Incineration Rate: pounds/hr N/A<br>tons/day | | |
| 5. Requested Maximum Operating Schedule:<br>hours/day | days/week | |
| weeks/year | 8,760 | hours/year |
| 6. Operating Capacity/Schedule Comment:<br>Unlimited hours of operation are requested. | | |

**EMISSIONS UNIT INFORMATION**
**Section [ 1 ] of [ 1 ]**

## C. EMISSION POINT (STACK/VENT) INFORMATION
**(Optional for unregulated emissions units.)**

**Emission Point Description and Type**

| | | |
|---|---|---|
| 1. Identification of Point on Plot Plan or Flow Diagram: Exhaust Stack | | 2. Emission Point Type Code: 1 |
| 3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Baghouse exhaust stack | | |
| 4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: EU 001 | | |
| 5. Discharge Type Code: V | 6. Stack Height: 29' 10" feet (above grade) | 7. Exit Diameter: 50.5" (4.2 feet) |
| 8. Exit Temperature: 300°F | 9. Actual Volumetric Flow Rate: 62,000 acfm | 10. Water Vapor: ambient% |
| 11. Maximum Dry Standard Flow Rate: dscfm | | 12. Nonstack Emission Point Height: feet |
| 13. Emission Point UTM Coordinates... Zone: East (km): North (km): | | 14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS) |
| 15. Emission Point Comment: | | |

**EMISSIONS UNIT INFORMATION**
**Section [ 1 ] of [ 1 ]**

## D. SEGMENT (PROCESS/FUEL) INFORMATION

**Segment Description and Rate:** Segment 1 of 4

| | | |
|---|---|---|
| 1. Segment Description (Process/Fuel Type): Mineral Products; Asphaltic Concrete; Conventional Continuous Mix Plant; Rotary Dryer | | |
| 2. Source Classification Code (SCC): 3-05-002-01 | 3. SCC Units: Tons produced | |
| 4. Maximum Hourly Rate: 300 TPH | 5. Maximum Annual Rate: 500,000 TPY | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: N/A | 8. Maximum % Ash: N/A | 9. Million Btu per SCC Unit: N/A |
| 10. Segment Comment: | | |

**Segment Description and Rate:** Segment 2 of 4

| | | |
|---|---|---|
| 1. Segment Description (Process/Fuel Type): In process fuel use: distillate oil<br>Asphalt Dryer | | |
| 2. Source Classification Code (SCC): 3-90=005-01 | 3. SCC Units: 1,000 gallons (TG) | |
| 4. Maximum Hourly Rate: | 5. Maximum Annual Rate: 1.2 MM Gallons | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: 0.6 | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: 135 MM BTU/TG |
| 10. Segment Comment: SCC used for No. 2 distillate 1. | | |

## D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

**Segment Description and Rate:** Segment 3_ of 4_

| | | |
|---|---|---|
| 1. Segment Description (Process/Fuel Type): Industrial process, in process fuel use: distillate oil, Grade 4 oil | | |
| 2. Source Classification Code (SCC): 3-90-005-98 | 3. SCC Units: 1,000 gallons (TG) | |
| 4. Maximum Hourly Rate: | 5. Maximum Annual Rate: 1.2MM Gallons | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: 0.6 | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: 145 MM BTU/TG |
| 10. Segment Comment: | | |

**Segment Description and Rate:** Segment 4_ of 4_

| | | |
|---|---|---|
| 1. Segment Description (Process/Fuel Type): Industrial process, in process fuel use: natural gas, general | | |
| 2. Source Classification Code (SCC): 3-90-006-89 | 3. SCC Units: MM CF burned | |
| 4. Maximum Hourly Rate: | 5. Maximum Annual Rate: N/A | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: N/A | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: 1000 |
| 10. Segment Comment: | | |

## E. EMISSIONS UNIT POLLUTANTS

**List of Pollutants Emitted by Emissions Unit**

| 1. Pollutant Emitted | 2. Primary Control Device Code | 3. Secondary Control Device Code | 4. Pollutant Regulatory Code |
|---|---|---|---|
| **PM** | **017** | | **EL** |
| **SO2** | **-0-** | **-0-** | **NS** |
| **CO** | **-0-** | **-0-** | **NS** |
| **NOX** | **-0-** | **-0-** | **NS** |
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## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

**(Optional for unregulated emissions units.)**

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

| | |
|---|---|
| 1. Pollutant Emitted:<br>PM | 2. Total Percent Efficiency of Control:<br>99.96 |
| 3. Potential Emissions:<br>lb/hour 15.1 tons/year | 4. Synthetically Limited?<br>☐ Yes ☒ No |
| 5. Range of Estimated Fugitive Emissions (as applicable):<br>0 to 5 tons/year | |
| 6. Emission Factor: 0.04 grains/dscf<br>Reference: Rule 62-210.300(3)c1.d & 62-204.800(7)(b)12, FAC | 7. Emissions Method Code:<br>3 |
| 8.a. Baseline Actual Emissions (if required):<br>tons/year | 8.b. Baseline 24-month Period:<br>From: To: |
| 9.a. Projected Actual Emissions (if required):<br>tons/year | 9.b. Projected Monitoring Period:<br>☐ 5 years ☐ 10 years |
| 10. Calculation of Emissions:<br>See "Emissions Calculations" | |
| 11. Potential, Fugitive, and Actual Emissions Comment: | |

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS N/A

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

**(Optional for unregulated emissions units.)**

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

| | |
|---|---|
| 1. Pollutant Emitted:<br>SO2 | 2. Total Percent Efficiency of Control:<br>-0- |
| 3. Potential Emissions:<br>lb/hour 0.65 tons/year | 4. Synthetically Limited?<br>☐ Yes ☒ No |
| 5. Range of Estimated Fugitive Emissions (as applicable): N/A<br>to tons/year | |
| 6. Emission Factor: 150S/1,000 gallons<br><br>Reference: SCC1-03-005-04, AP42 Table 1.3-1 | 7. Emissions Method Code:<br>3 |
| 8.a. Baseline Actual Emissions (if required):<br>tons/year | 8.b. Baseline 24-month Period:<br>From: To: |
| 9.a. Projected Actual Emissions (if required):<br>tons/year | 9.b. Projected Monitoring Period:<br>☐ 5 years ☐ 10 years |
| 10. Calculation of Emissions:<br>See "Emissions Calculations" | |
| 11. Potential, Fugitive, and Actual Emissions Comment: | |

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS N/A

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

**(Optional for unregulated emissions units.)**

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

| | | |
|---|---|---|
| 1. Pollutant Emitted: CO | 2. Total Percent Efficiency of Control: -0- | |
| 3. Potential Emissions: lb/hour 39 tons/year | | 4. Synthetically Limited? ☐ Yes ☒ No |
| 5. Range of Estimated Fugitive Emissions (as applicable): 0 to 1 tons/year | | |
| 6. Emission Factor: 0.4 lb/t<br>Reference: Rule AP42, 11.1-5 | | 7. Emissions Method Code: 3 |
| 8.a. Baseline Actual Emissions (if required): tons/year | 8.b. Baseline 24-month Period: From: To: | |
| 9.a. Projected Actual Emissions (if required): tons/year | 9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years | |
| 10. Calculation of Emissions: See "Emissions Calculations" | | |
| 11. Potential, Fugitive, and Actual Emissions Comment: | | |

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS N/A

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

**(Optional for unregulated emissions units.)**

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

| | |
|---|---|
| 1. Pollutant Emitted:<br>NOX | 2. Total Percent Efficiency of Control:<br>-0- |
| 3. Potential Emissions:<br>lb/hour 20.6 tons/year | 4. Synthetically Limited?<br>☐ Yes ☒ No |
| 5. Range of Estimated Fugitive Emissions (as applicable):<br>to tons/year N/A | |
| 6. Emission Factor: 0.12 lb/T<br>Reference: AP42 11.1-7 | 7. Emissions Method Code:<br>3 |
| 8.a. Baseline Actual Emissions (if required):<br>tons/year | 8.b. Baseline 24-month Period:<br>From: To: |
| 9.a. Projected Actual Emissions (if required):<br>tons/year | 9.b. Projected Monitoring Period:<br>☐ 5 years ☐ 10 years |
| 10. Calculation of Emissions:<br>See "Emissions Calculations" | |
| 11. Potential, Fugitive, and Actual Emissions Comment: | |

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS N/A

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

**(Optional for unregulated emissions units.)**

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

| | |
|---|---|
| 1. Pollutant Emitted:<br>VOC | 2. Total Percent Efficiency of Control:<br>-0- |
| 3. Potential Emissions:<br>lb/hour 9.6 tons/year | 4. Synthetically Limited?<br>☐ Yes ☒ No |
| 5. Range of Estimated Fugitive Emissions (as applicable):<br>0 to 1 tons/year | |
| 6. Emission Factor: 0.032 lb/ton<br>Reference: AP42 11.1-8 | 7. Emissions Method Code:<br>3 |
| 8.a. Baseline Actual Emissions (if required):<br>tons/year | 8.b. Baseline 24-month Period:<br>From: To: |
| 9.a. Projected Actual Emissions (if required):<br>tons/year | 9.b. Projected Monitoring Period:<br>☐ 5 years ☐ 10 years |
| 10. Calculation of Emissions:<br>See "Emissions Calculations" | |
| 11. Potential, Fugitive, and Actual Emissions Comment: | |

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS N/A

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**Allowable Emissions** Allowable Emissions __ of __

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

## G. VISIBLE EMISSIONS INFORMATION

**Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.**

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

| | |
|---|---|
| 1. Visible Emissions Subtype:<br>VE20 | 2. Basis for Allowable Opacity:<br>[X] Rule [ ] Other |
| 3. Allowable Opacity:<br>Normal Conditions: 20 % Exceptional Conditions: 20 %<br>Maximum Period of Excess Opacity Allowed: -0- min/hour | |
| 4. Method of Compliance: Method 9 test, half-hour | |
| 5. Visible Emissions Comment:<br>Rule 62-210.300(3)(c)1.f & 62-204.800(7)(b)12, FAC | |

**Visible Emissions Limitation:** Visible Emissions Limitation __ of ___

| | |
|---|---|
| 1. Visible Emissions Subtype: | 2. Basis for Allowable Opacity:<br>[ ] Rule [ ] Other |
| 3. Allowable Opacity:<br>Normal Conditions: % Exceptional Conditions: %<br>Maximum Period of Excess Opacity Allowed: min/hour | |
| 4. Method of Compliance: | |
| 5. Visible Emissions Comment: | |

## H. CONTINUOUS MONITOR INFORMATION N/A

**Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.**

**Continuous Monitoring System:** Continuous Monitor ___ of ___

| | |
|---|---|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | ☐ Rule ☐ Other |
| 4. Monitor Information...<br>Manufacturer:<br>Model Number: | Serial Number: |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment: | |

**Continuous Monitoring System:** Continuous Monitor ___ of ___

| | |
|---|---|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | ☐ Rule ☐ Other |
| 4. Monitor Information...<br>Manufacturer:<br>Model Number: | Serial Number: |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment: | |

## H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

**Continuous Monitoring System:** Continuous Monitor ___ of ___

| | |
|---|---|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | ☐ Rule ☐ Other |
| 4. Monitor Information...<br>Manufacturer:<br>Model Number: | Serial Number: |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment: | |

**Continuous Monitoring System:** Continuous Monitor ___ of ___

| | |
|---|---|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | ☐ Rule ☐ Other |
| 4. Monitor Information...<br>Manufacturer:<br>Model Number: | Serial Number: |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment: | |

## I. EMISSIONS UNIT ADDITIONAL INFORMATION

**Additional Requirements for All Applications, Except as Otherwise Stated**

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [x] Attached, Document ID: Figure 2 [ ] Previously Submitted, Date _____

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [x] Attached, Document ID: Introduction [ ] Previously Submitted, Date _____

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [x] Attached, Document ID: Appendix C [ ] Previously Submitted, Date _____

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [x] Attached, Document ID: Appendix D, Environmental Compliance Plan
   Previously Submitted, Date _____ [ ] Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [x] Attached, Document ID: Appendix D, Environmental Compliance Plan
   Previously Submitted, Date _____ [ ] Not Applicable

6. Compliance Demonstration Reports/Records:
   [ ] Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   [ ] Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   [ ] To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   [x] Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   [ ] Attached, Document ID: _____ [x] Not Applicable

## I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

**Additional Requirements for Air Construction Permit Applications**

| |
|---|
| 1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)):<br>☐ Attached, Document ID: _____ ☐ Not Applicable |
| 2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.):<br>☐ Attached, Document ID: _____ ☐ Not Applicable |
| 3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only)<br>☐ Attached, Document ID: _____ ☐ Not Applicable |

**Additional Requirements for Title V Air Operation Permit Applications**

| |
|---|
| 1. Identification of Applicable Requirements:<br>☐ Attached, Document ID: _____ |
| 2. Compliance Assurance Monitoring:<br>☐ Attached, Document ID: _____ ☐ Not Applicable |
| 3. Alternative Methods of Operation:<br>☐ Attached, Document ID: _____ ☐ Not Applicable |
| 4. Alternative Modes of Operation (Emissions Trading):<br>☐ Attached, Document ID: _____ ☐ Not Applicable |

**Additional Requirements Comment**

| |
|---|
| |

# APPENDIX B

## Plant Specifications and Emission Factors

Asphalt Equipment Company
13333 US Highway 24 West
Fort Wayne, IN. 46814

Phone 260-672-3004
Fax 260-672-3020
Factory 260-493-1556

# Process Description

**ALMIX MODEL 10048 UNI-FLOW DRUM MIXER WITH A BAGHOUSE**

Several aggregate types are proportioned by the calibrated belt feeders on to a common collecting belt. These materials are then conveyed to a vibrating screen located over the incline truss conveyor. The incline truss conveyor transfers the material to a high speed "slinger conveyer" which throws the material into the drum. An aggregate belt scale located on the incline truss conveyor determines the rate (weight) of combined aggregate fed into the uni-flow drum mixer. The weigh scale generates a signal which is sent via a blending computer to the A.C. drives on the asphalt pump system. Liquid asphalt is usually introduced at the rate of 5-7% based on the weight of the aggregate.

The uni-flow drum mixer is equipped with a natural gas burner to dry the aggregate. At 300 tph and 5% initial moisture and a product temperature of 300 deg. F the burner will consume 89,779 ft3/hr of natural gas.

The dry aggregate continues moving down the drum, past the burner nose. At this point recycled asphalt products (RAP) and returned baghouse fines are introduced. The combined dry aggregate, RAP and baghouse fines move thru a short preheat zone binging the RAP up to temperature and allowing the moisture in the RAP to be driven off. The liquid asphalt cement is injected and the combined product moves through the mixing zone to be blended together.

This final product is conveyed from the drum mixer via a drag conveyor to a holding silo for discharge into trucks.

The emissions from the drying process are pulled by an exhaust fan through a baghouse with an air to cloth ratio of 4.6 to 1. The captured aggregate dust is returned to the drum mixer via enclosed "screw type conveyors for use in the final product.

Asphalt Equipment Company
13333 US Highway 24 West
Fort Wayne, IN. 46814

Phone 260-672-3004
Fax 260-672-3020
Factory 260-493-1556

# 10048 "UF" Drum Mixer Data Sheet

Dryer Make: Asphalt Equipment Company
Dryer M/N: 10048UF

Description: 100" dia. x 48' long Uni-Flow Drum Mixer
Drum Drive: Trunnion drive with (4) 40 HP motors
Trunnion Rolls: (4) 16" dia. x 11" face with 4 11/16" shaft (material: 1045)
Trunnion Rings: 113" O.D. x 106" I.D. x 10" face 1-piece forgings (material: 1045)
Material inlet: "Slinger conveyor" 30" belt with 5 HP Gearmotor drive

Burner Make: Hauck Manufacturing Co.
Burner Model: Eco Star ESII-100B
Burner capacity: 100 MMBTU/HR (Max)
Burner Firing Rate: 80.5 MMBTU/HR (@ 300 TPH)
Burner Blower: 36 oz Integral blower with 100 HP motor
Burner Type: Low Nox, Total Air Burner sealed to Dryer to reduce operating noise
Burner Fuel: Natural Gas

The ALmix Model 10048 UF Drum Mixer is guaranteed not to exceed the following emission limits established by the U.S. EPA, AP42 standards for Drum Mix Asphalt Plants when utilizing the Hauck ESII-100 Burner firing Natural Gas and ducted to a baghouse.

Hourly Production Rate: 300 TPH asphalt concrete produced at 300 deg. F with initial aggregate moisture of 5%.

| Pollutant | emission factor (lbs/ton) | emission level (lbs/hr) |
|---|---|---|
| Total pm | 0.033 | 9.9 |
| pm10 | 0.023 | 6.9 |
| SO2 | 0.0034 | 1.02 |
| CO | 0.13 | 39 |
| CO2 | 33 | 9900 |
| NOx | 0.026 | 7.8 |
| V.O.C. | 0.032 | 9.6 |

MASS FLOW RATE OF GASES= 1845.081 lb/min
DSCFM @ FAN EXIT= 24548.36 ft^3/min



# SUMMARY OF INPUTS AND RESULTS,CONT

## FUEL CALCULATIONS

GALLONS OF HEAVY WASTE OIL USED= 629.37 gal/hr
AMOUNT OF NATURAL GAS USED= 89779.63 ft^3/hr

## EMISSIONS AT STACK

ENGINEERING PARTICLE EMISSION ESTIMATE= 3.594115 lb/hr
ENGINEERING PARTICLE EMISSION ESTIMATE= 0.017081 Grains/DSCFM

***Below Emission Estimations are Based on Federal Standard AP-42 for Drum Mix Asphalt Plants:***

| | EMISSION FACTORS (lbs emitted/ton) | AVE. EMISSION RATE FOR A 300 ton/hr PLANT [lb/hr of pollutant] | MAX. EMISSION RATE FOR 330 ton/hr PRODUCTION RATE [lb/hr of pollutant] |
|---|---|---|---|
| TOTAL PARTICLE EMISSION | 0.033 | 9.9 | 10.89 |
| PM10 | 0.023 | 6.9 | 7.59 |
| SULFUR DIOXIDE | 0.0034 | 1.02 | 1.122 |
| CARBON MONOXIDE | 0.13 | 39 | 42.9 |
| CARBON DIOXIDE | 33 | 9900 | 10890 |
| NITROGEN OXIDES | 0.026 | 7.8 | 8.58 |
| T.O.C. | 0.044 | 13.2 | 14.52 |
| V.O.C. | 0.032 | 9.6 | 10.56 |
| METHANE | 0.012 | 3.6 | 3.96 |
| LEAD | 0.000015 | 0.0045 | 0.00495 |

# APPENDIX C

## Precautions to Prevent Emissions of Unconfined Particulate Matter

## Precautions to Prevent Emissions of Unconfined PM

This is a conventional drum mix asphaltic concrete plant. Aggregate is stored in piles throughout the plant site. It is transferred from these piles to aggregate storage bins via front-end loader(s). From storage bins aggregate is fed through feeders onto conveyor, which carries it to drying drum. From drying drum, dried aggregate is conveyed into a mixing drum where liquid asphalt is added. From there, the mix is conveyed to storage silo. From storage silo, the asphaltic concrete is dropped into truck(s) and hauled to the job site.

Dust created from operations such as the mixing/drying drum is controlled by an exhaust system, which consists of the following: exhaust ductwork, baghouse, exhaust fan, and stack. Material collected by baghouse is fed back into the dryer.

Fugitive dust throughout the site is controlled by reducing the speed of vehicles and by use of water sprays. Aggregate piles will also be wetted with water to control dust when necessary.

5'-0"
11'-10 1/4"
36'-2 7/8"
4'-3 7/8"
STACK
WITH TEST PORTS
4'-5 5/8"
INERTIAL
SEPARATOR
29'-10 1/4"
8"
17'-5 7/16"
17'-5 7/16"
8"
8'-7 1/4"
36'-2 7/8"
3'-3"
3'-2 7/8"
TEST PORTS
6 7/16"
TYP
19'-10"
29'-10 1/4"
LIST OF MATERIALS
DO NOT SCALE DRAWING
DRAWN 2/23/10 RV
CHECK
APPR.
SCALE:
TOLERANCES:
EXCEPT AS NOTED
ALmix
ELEVATION
62,000 ACFM
REVERSE AIR BAGHOUSE
C420-S01
SHT 1 OF 1

Asphalt Equipment Company
13333 US Highway 24 West
Fort Wayne, IN. 46814

Phone 260-672-3004
Fax 260-672-3020
Factory 260-493-1556

# Baghouse Data sheet

Baghouse make: Asphalt Equipment Company
Baghouse M/N: 62KRA

Description: 62,000 ACFM Skid Mount Fabric Filter
Primary: Inertial collector on Baghouse Inlet
Operating Temperature: 220 – 380 deg F
Air to Cloth Ratio: 4.6 to 1
Cloth Area: 13,470 sq. ft.
# of Bags: (780) 87" long bags
Bag Design: Single wall elliptical
Bag Construction: 14 oz. Virgin Nomex with 13% Glass Fiber
Cleaning Mechanism: Reverse Air
Pressure Drop: 3 – 5 in. H2O

Exhaust Fan: Twin City Fan and Blower Model 490 BCS
Exhaust Fan Drive: 200 HP motor
Stack Height: 29'- 10" above grade
Stack size: 38 1/2" x 52"
Stack Area: 13.9 sq. ft. (Equivalent dia. = 50.5")
Stack Flow Rate: 4460 FPM (max.)

Baghouse Efficiency Guarantee: 99.96% Control Efficiency

# APPENDIX D
# Environmental Compliance Plan

# ENVIRONMENTAL COMPLIANCE PLAN

# FOR

# ROADS, INC.

# CANTONMENT ASPHALT PLANT

# 15 BECKS LAKE ROAD

September 2012

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**Attachments**

Attachment A – Daily Log Form

# 1.0 INTRODUCTION

This Environmental Compliance Plan (Plan) provides basic information demonstrating the Owner's commitment to and provides reasonable assurance that this facility will operate in accordance with applicable laws and rules.

This Plan was developed in accordance with the unique requirements of the individual facility and provides the operator with adequate information and description regarding design and operation and maintenance features of the facility. The Plan includes basic engineering design criteria for the facility and information concerning process control and performance evaluation for the facility, and equipment and procedural descriptions for emergency conditions. Regular maintenance and repair instructions for plant equipment and monitoring procedures are also included.

This plant includes the following elements:

- Operator Training: concerning plant operation, permit and other regulatory requirements.
- Plant Monitoring: establishment and use of parameters to monitor plant operation such as baghouse pressure differential and visible emissions.
- Operation and Maintenance Plan: establishment and use of a plant specific Operation and Maintenance (O&M) Plan.
- Facility Inspections: use of periodic facility walk-through inspections by plant staff with specific inspection guidelines, checklists and record keeping.

## 2.0 CORPORATE COMMITMENT

Roads, Inc. adheres to a strong, company-wide environmental program and relies on a comprehensive environmental program which was developed to ensure the highest commitment and quality from the business operation as well as from employees, to protect and enhance the environment. This program includes an environmental policy, environmental auditing procedures, and employee education and involvement.

# 3.0 OPERATOR TRAINING

This Plan represents a continuing education program for all plant operators concerning plant operation, permit, and other regulatory requirements. A copy of the approved Plan will be available to the operators, maintenance personnel, technicians, and laboratory personnel.

Personnel will be trained to operate the facility in accordance to the factory training manual and this Plan. Consequently, new employees will be trained within 90 days after commencement of employment and prior to unsupervised plant operation. In addition, periodic safety meetings are required for all plant personnel and often cover environmental topics including air permit requirements.

Environmental education is key to maintaining successful environmental stewardship. Education includes new hire orientation and training sessions. During orientation, new hires are educated about the various permits, permit conditions, and monitoring requirements.

The training sessions teach management and supervisory personnel about dust control, waste management, spill prevention, air permits, and other environmental topics. These training sessions are intended to teach plant management the environmental issues so that they can teach their employees. Plant operators also get trained on how to read opacity from their stacks.

# 4.0 PLANT MONITORING

This section establishes the use of parameters to monitor plant operation such as pressure differentials and visible emissions. The facility conducts reasonable monitoring to assure continued compliance with the terms and conditions of their permit. The monitoring will be carried in the manner prescribed in this procedure.

The performance parameters include such physical, chemical or electrical characteristics as are applicable to the particular emissions unit and which are indicators of the condition, operating rates, and efficiencies. Such parameters generally include the following indicators for baghouses:

- Bag pressure drop
- Gas flow rate: direct method preferred, indirect method acceptable
- Air to cloth ratio
- Bag weave
- Bag material
- Gas temperature at inlet and outlet
- Condition of gas
- Frequency of reverse airflow operation

The operating protocol addresses the physical steps and procedures to be followed by the operator when monitored parameters are outside the typical operating range. Proper operation of baghouse dust collector requires the use of differential pressure gauges (such as magnehelic) that can indicate a sudden decrease in pressure (as system leak) or a sudden rise in pressure (binding or plugging problems). U-tube manometers can also be used to help identify problems with dampers and bags by indicating the difference in pressure across the baghouse. A magnehelic guage or manometer indicates the pressure differential across the filter elements in inches of water.

All asphalt plants create fine dust carryout from drum dryer, screens, and weigh box. In order to meet federal and state air quality codes, emission control equipment is necessary to capture particulate emissions that might otherwise be released into the atmosphere. During the dust filtering operation, material is collected by the filter elements causing a reduction in porosity. In order to maintain correct pressure differential across filtering bags, a cyclic timer periodically actuates reverse air flow so that a portion of exhaust air flows back into baghouse filters, causing filter elements to clean.

The operating parameters of the pollution control equipment to be monitored are as follows:

- Pressure drop (delta P) across the baghouse
- Visible emissions

The pressure drop across the baghouse is a useful parameter to monitor baghouse performance. A given baghouse will operate within a pressure drop range.

A pressure drop much lower than the lower end of the operating range could indicate:

- New bags which have not developed filter cake
- Bag failure
- Baghouse structural failure
- Ductwork structural failure

A pressure drop much higher than the upper end of the operating range could indicate:

- Plugged bags
- Blocked stack
- Fan malfunction
- Plugged ductwork

This plan provides for monitoring of baghouse pressure drop. The data will be established to indicate typical operating range of pressure drop for this baghouse. Any values noted which fall significantly outside this range will be noted. An appropriate investigation will follow to determine the cause of the variation and to evaluate any attendant effect on visible emissions.

Additi8onally, the permit requires annual p articulate matter testing using EPA Method 5, to determine compliance with DEP rules and the New Source Performance Standard. Each such annual testing event will provide an opportunity to evaluate a possible correlation between baghouse pressure drop, opacity, and particulate matter emission rate. A daily observation of stack gas opacity will be conducted by the plant operator, as part of the daily inspection (see Facility Inspections).

The pressure drop (delta P) across the baghouse will be monitored at least once during each day of plant operation. The delta P value will be logged on the plant's daily production report. The numerical value of this parameter, in inches of water, will be determined by a magnehelic gauge.

# 5.0 OPERATION AND MAINTENANCE PLAN

This section establishes a plant specific Operation and Maintenance (O&M) Plan. This element provides reasonable assurance that this facility can be effectively operated and maintained, through reasonable provisions for the operation and maintenance of the facility. Routine maintenance of equipment will be performed as needed to assure optimal operation. The facility shall be operated to control objectionable odors in accordance with Rule 62-296.320(2), F.A.C. Fuels, solvents, lubricants, and other maintenance materials shall be stored in approved areas.

This plan includes a schedule for the maintenance and inspection of the control device and collection system and schedule for recording performance parameters of the control device. The O&M Plan included identification of the control device for each emissions unit subject to provisions of the Plan, including the following design specifications and other descriptive data:

- Manufacturer: Asphalt Equipment Company
- Model number: 62KRA
- Type: Reverse flow baghouse
- Flow rate (gas): estimated 62,000 acfm
- Efficiency rating at design capacity: 99.96%
- Pressure drop: 3"-5" W.G.

The Plan includes performance parameters that indicate the rate of operation, process weight throughput and fuel usage rate. Such parameters include the following:

- Weight per unit time of raw materials input: 300 TPH
- Process temperature or pressure or pressure:
- Fuel or fuel mixture: No. 2 or No. 4 fuel oil with maximum sulfur content of 0.6% or natural gas

The Plan contains inspection and maintenance schedules including periodic assessments of the condition of ducting, hoods, conveyors, and other equipment and schedule for recording of performance parameter data.

**Startup of Baghouse:**

- Start all electric drive components to ensure proper rotation
- Check and make sure that reverse airflow system is operating
- Check and make sure that filtrates removal system from baghouse hopper is operating properly
- Run exhaust fan and check to see that magnehelic guage lines are connected correctly
- At start-up, preheat baghouse to 300°F before aggregate is introduced into dryer. Pre-heating time will vary according to ambient temperatures and moisture conditions at plant site. NOTE:

This should be done first thing in the morning and then again only after prolonged shutdown during the day (30 minutes or more).

- Minimum inlet temperature to baghouse should never be allowed to fall below 240°F or condensation may occur inside the baghouse causing bag mudding or blinding which will result in very high static pressures and loss of adequate draft for proper dryer operation.

**Shutdown of Baghouse:**

- At shutdown, always keep timer and augers operating after dryer shutdown to clean out baghouse. This will prevent a cold slug of dust from reaching the plant at next startup. Also the dust auger could be stalled if slugged with cold, wet dust.

- If at any time a constant stream of dust is being emitted from the fan stack, check for a mechanical leak or worn/torn bag(s). If a leak develops, the area can usually be easily spotted from the clean airside by a large deposit of dust around the leak area. Should a leak develop, clean dust from area and reseal both sides of the leak with RTV 732 silicone sealant or equivalent. This type of selant is required to withstand the high temperatures of a baghouse.

Access doors allow for maintenance personnel to enter the baghouse equipment for leak detection, filter bag changes, and proper identification of operational problems. These doors need to create a positive seal to reduce baghouse or ambient air intake and heat loss on all negative systems. They also need to seal properly to reduce condensation that can cause filter bag damage and severe metal corrosion. To prevent air infiltration and insure a positive contact between the door seal and door pan, a proper door seal material must be used. There are various materials designed to meet the specific needs of door applications based on gas chemistry, temperature, and door configurations. Check seals periodically and whenever the baghouse is opened for repairs or changeouts.

**Routine Maintenance Includes:**

Weekly

- Apply grease to all grease fittings
- Adjust all belt tensions

Monthly

- Blow out differential pressure gauge lines

Annually

- Shut down the plant's operations each year to conduct preventive maintenance procedures, which include changing the bags in the baghouse (as-needed) and turning the burner for maximum burner efficiency (as-needed)

# 6.0 FACILITY INSPECTIONS

This section describes the use of periodic facility "walk-through inspections" by plant staff with specific inspection guidelines. The condition of the facility will be noted and compared to its condition during the initial survey and during subsequent inspections.

Daily inspections are made by the plant operator prior to plant startup to make sure emission control components are in good working order. Proper maintenance and record keeping play a vital role in the operation of a baghouse. The information gathered can assist in implementing an effective preventive maintenance program. The documentation of inspections, observations, and maintenance will help determine the baghouse operating efficiency and help prevent a plant from reaching noncompliance status.

**Routine observations of the pollution control devices are:**

Daily

- Record differential pressure
- Check operation and frequency of reverse airflow system
- Check baghouse filtrates conveying system
- Check for visible stack emissions
- Check for miscellaneous visible emissions throughout plant

Monthly

- Check access door seals for leaks
- Check door seals for deterioration

Semi-Annually

- Inspect all accessible functional spaces
- Record frequency of reverse flow operation
- Check bag conditions (dirty side)
- Check fan
- Check all belt tension

Annually

- Check case support for corrosion
- Check all bolts and welds
- Check ductwork for buildup of dust

# 7.0 RECORD KEEPING

Records of inspections, maintenance, and performance data of control devices and auxiliary equipment shall be retained for a minimum of two years and shall be made available to DEP upon request. These records are retained at the plant office.

Records that should be kept regularly include baghouse pressure drop. Recordings are maintained to be used in comparison to current baghouse data.

**Record keeping requirements include:**

- Records of control equipment operating parameters
- Records of control system malfunctions or failures and corrective actions taken
- Results of compliance tests required by DEP shall be reported to DEP within 45 days after completion of test

# 8.0 PERIODIC PLAN REVIEW

This Plan will be reviewed at least annually from the date of approval. This review will evaluate the effectiveness of the Plan and will make any changes necessary for the Plan to be continuously administered.

The Environmental Compliance Plan shall be updated as operations change, but no less frequently than upon renewal of the permit. DEP shall be notified of changes to this Plan other than those required for routine maintenance. The Plan shall be revised when operational procedures change, to reflect any facility alterations performed or to reflect experience resulting from facility operation. The facility will periodically review and revise the operating protocol, as appropriate to ensure satisfactory system performance.

# 9.0 ABNORMAL EVENTS

In the event facility is temporarily unable to comply with any of the conditions of the DEP permit due to breakdown of equipment, power outages, destruction by fire hazard, wind or other cause, the facility will notify DEP. Notification shall be made in person, by telephone, or other means within 24 hours of breakdown or malfunction. The telephone number to call and notify DEP is **(850) 595-0639** or **(850) 595-0616**. For emergencies involving a significant threat to human health or the environment, dial **911**.

A written report of any noncompliance referenced above shall be submitted to the DEP, 160 Governmental Center, Pensacola, FL 32502, within 30 days after its occurrence. The report shall describe the nature and cause of the breakdown or malfunction, the steps being taken or planned to be taken to correct the problem and prevent its recurrence, emergency procedures in use pending correction of the problem, and the timeframe of when the facility will again be operating in accordance with permit conditions.

If an emergency arises or there is any condition which prevents the continued operation of the emissions control components or results in noncompliance with applicable regulations, the operator will:

- Stop production immediately
- Notify the Area Superintendent(s) as soon as practically possible, of the time, date, and nature of the occurrence and the corrective action(s) taken
- Ensure that the emission control components are in good working order before resuming production

# ATTACHMENT A

## Daily Log

Roads, Inc.
Cantonment, FL Asphalt Plant

## Daily Log

Date:_____

Tons Mixed:_____

Hours Operated:_____

Average tons/hour:_____

**Daily Checks**

Magnehelic Reading:_____ " W.G.

Stack Visible Emissions Present: _____yes _____no

Reverse Airflow System Operating: _____yes _____no

Baghouse Filtrates Conveying System Operating: _____yes _____no

_____ _____

(date) (Plant Manager)