

# **Environmental Compliance Plan**

**For**

**Peavy & Son Construction Company, Inc.**

**P. O. Box 2369**

**Havana, FL 32333**

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## **Introduction**

This Plan provides information demonstrating the owner's commitment to operating facility in compliance with DEP Operation Permit requirements and provide assurance that the operation of this facility will be in accord with applicable laws and rules.

The Plan was developed in accordance with specific requirements of this facility and provides the operator(s) with adequate information and description regarding the design, operation and maintenance features of this facility. It is used in conjunction with plant operation and maintenance manual, supplied by plant manufacturer (ASTECC), to train new plant operator(s) and provide continuous education.

## **Corporate Commitment**

Peavy & Son Construction Company adheres to a strong, company-wide environmental program. The Company relies on past experience with asphalt plants to assure quality plant operation and employee training, as well as protection of surrounding environment.

It is the Company's belief that commitment from all its' employees, especially top management, is what gets the job done. All of our managers realize that it is good business sense to protect the environment.

## Operator Training

Existing plant operator has been with the company for twenty years. Back-up operator is Mr. Peavy IV who, when needed, operates the plant. Both operators were trained by ASTEC representatives when plant was installed. Mr. Peavy will train any new plant operator as part of the hiring procedure.

Besides periodic reviewing of Compliance Plan with plant operator(s), management also periodically reviews DEP Operation Permit with plant operator(s). Although every detail of operation permit is important, following details stand out:

1. Although Plant is permitted to operate at rate of 300 TPH, during 2006 test, plant operated at average production of 260 TPH. For that reason plant is presently allowed to operate at  $260 + 10\% = 286$  TPH, until retested at higher capacity.
2. Both, dryer burner and asphaltic heater are allowed to use either No. 2 distillate oil with maximum sulfur content of 0.4% or natural gas. Sulfur content in fuel oil must be determined using ASTM methods ASTM D4057-88 and ASTM D129-91, ASTM D2622-94 or ASTM D4-294-90.
3. RAP is allowed to be used up to 25% of production.
4. Compliance tests will be conducted yearly. Tests are to be conducted alternately with or without RAP. This means one year plant is to operate using RAP during the test and the following year using virgin materials only.
5. Maximum yearly asphalt production is limited to 500,000 TPY
6. Maximum fuel usage is limited to 1.2 MM gal/yr of No. 2 distillate.

Follow-up meetings are held every 3 months following initial training to review the Compliance Plan and discuss any questions and problems that may come up during last quarter. Dated records of these meetings are kept on file.

Yearly training sessions are held to cover plant operation, safety, compliance with DEP Operation Permit and other environmental issues such as prevention of fugitive dust emissions and prevention of material spills throughout plant property.

## Plant Monitoring

This section establishes the use of parameters to monitor plant operation such as pressure differentials and visible emissions. The Company conducts reasonable monitoring to assure continued compliance with the terms and conditions of the permit. The monitoring will be carried out 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 include the following:

- Bag pressure drop
  - 
  - Exhaust air flow rate (established during EPA Method 5 compliance test)
  - 
  - Air to cloth ratio
  - 
  - Bag weave
  - 
  - Bag material
- Bag cleaning conditions
- Pulsing sequence and air pressure

The operating protocol addresses the physical steps and procedures to be followed by the operator when monitored parameters are outside the typical operating range established for this facility since initial startup. Proper operation of baghouse dust collector is monitored by magnehelic differential pressure gauge. Sudden decrease in pressure across filtering media (bags) represents a system leak. Sudden rise in pressure represents plugging problems. Magnehelic gauge indicates the pressure differential across the filter elements in inches of water. nehelic) that can indicate a sudden decrease in pressure (a system

All asphalt plants create particulate emissions while aggregate and sand are dried in a drum mixer. In order to meet Federal and State air quality codes, emission control equipment consisting of exhaust hood(s), ductwork, baghouse and exhaust blower is employed. As air laden with dust is captured at points of emissions, it is conveyed through a system of ductwork to baghouse, which filters particulate from the air. Clean air is then exhausted by exhaust blower and released into atmosphere. During dust filtering operation, particulate matter is collected by filtering bags causing a reduction in dust emissions. In order to keep dust from building up on filter bags, a cyclic timer periodically actuates the solenoid valves that deliver momentary surges of high-pressure air. These surges are discharged through orifices located above each bag causing a reverse flow of air through the bag for cleaning purposes. Cleaning (blowing) of bags is done in sequence controlled by a timer so that not all bags are blown at the same time. Instead, timer is sequenced to deliver bursts to one or several bags at one time. This assures that baghouse continues to operate uninterrupted without disrupting filtering process.

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

- Pressure drop (Delta P) across baghouse
- Visible emissions

The pressure drop across the baghouse at this facility during normal operation and during emissions tests were observed at 2.5 – 3.5” W.G.

A pressure drop much lower than the lower than 1.5” W.G. could indicate:

- New bags which have not developed a filter cake
- Bag failure
- Baghouse or ductwork structural failure

A pressure drop higher than 6” could indicate:

- Plugged bags or ductwork

- Blocked stack
- Fan malfunction

## **Operation and Maintenance Plan**

Operation and Maintenance (O & M) Plan provides reasonable assurance that the facility can be effectively operated and maintained, through reasonable provisions for the operation and maintenance of the facility. Routine maintenance of equipment is performed as needed to assure optimal operation. This 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.

The O & M Plan includes procedure for startup, daily monitoring and inspection of the baghouse and dust collection system, weekly, monthly and annual maintenance required for the above

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

### **Startup of baghouse**

Start all electric drive components to ensure proper rotation

Run air compressor to ensure proper air pressure is reached for cleaning cycle

Run exhaust fan and check differential pressure magnehelic gauge

Preheat baghouse to 250 - 300 F before aggregate is discharged into dryer. This should be done first thing in the morning and then again only after prolonged shutdowns during the day (30 minutes or more)

Minimum inlet temperature to baghouse should never be allowed to fall below 220 F or condensation may occur inside the baghouse causing bag mudding or blinding with a result of very high static pressures and loss of adequate draft for proper dryer operation.

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 start-up. Also dust auger could be stalled if slugged with cold, wet dust.

### **Daily monitoring and checks of baghouse and auxiliary equipment**

Differential pressure reading should be between 1.5 and 6 inches water gauge ("WG)

If readings exceed 6" WG, operator needs to rectify the problem immediately by determining the reason for high reading and take corrective actions.

First determine that the gauge is not malfunctioning by performing the following:

Disconnect both lines leading to gauge and see if gauge reads "O". If not, use set screw to reset gauge to "O".

While lines are still disconnected, blow both lines with compressed air (pressures no higher than 30 PSIG).

Reconnect lines and check reading.

If reading is still high, the problem is in the baghouse or ductwork as described in Plant Monitoring section.

If gauge reading is 1.5" WG or lower, check gauge as described above and if readings are still low, the problem is in the baghouse or ductwork as described in Plant Monitoring section.

Perform visual inspection of the plume from baghouse stack. If at anytime a constant stream of dust is observed from fan stack, check for a mechanical leak or worn bag(s). If a leak develops, the area can usually be easily spotted from the clean air side by a large deposit of dust around the leak area. Should a leak develop, clean dust from area and reseal both sides of leak with high temperature silicone sealant. Plant operator needs to know how to distinguish between vapor/moisture plume and actual opacity, which represents dust in plume. Vapor will be present on cold days, when moisture in the plume is condensing.

Check baghouse pulsating system and determine if it functions correctly. Record compressed air pressure.

Check baghouse dust hopper and auger conveying system to make sure it operates properly.

Record dryer burner startup and shutdown times.

Record total production.

All above checks and data will be recorded on plant daily log. Sample of daily log attached.

### **Weekly maintenance**

Apply grease to all grease fittings

Adjust belt tension(s)

Clean compressed air filter and water trap

### **Monthly maintenance**

Blow out differential pressure lines

### **Annual maintenance**

Shut down the plant's operations each year to conduct preventive maintenance procedures

This should include changing the bags in the baghouse as needed, and tuning the burner for maximum burner efficiency.

## Facility Inspections

This section describes the use of periodic facility “walk-through inspections” by plant staff with specific inspection guidelines. The condition of facility is noted and compared to its condition during initial survey and during subsequent inspections. Copy of inspection report form is attached.

Inspection of the baghouse and dust collection equipment is conducted by a fully trained employee with direct access to senior management. Inspections are conducted weekly, monthly, semi-annually, and annually as follows:

### Weekly

- Record compressed air reading

- Check that hopper is empty

### Monthly

- Check access door seals for leaks

- Check door seals for deterioration

### Semi-annually

- Record pulse duration

- Record pulse delay

- Check bag condition (dirty side)

- Check fan

- Check belt tension

## **Annually**

Check case support for corrosion

Check all bolts and welds

Check ductwork for buildup of dust

## Records

Records of monitoring, inspections and maintenance data of baghouse and auxiliary equipment are stored in operator's office for a minimum of two years and shall be made available to DEP upon request.

Following documents are on file:

- Copy of current DEP construction and operation permit

- Log(s) of daily recordings as listed in O & M Plan

- Copy of fuel analysis stating percentage of sulfur

- Fuel delivery slips indicating amount of fuel delivered during previous 12 months.

- Copy of this Compliance Plan

- Notes taken during training sessions

- Records of weekly, monthly, semi-annual and annual plant inspections.

- Copy of ASTEC Operation and Maintenance Manual

- Maintenance records on the baghouse and associated equipment, structural repairs, bags and motor(s) replacements.

- Records of malfunctions or failures of the above and corrective actions taken.

- Records of last compliance test

## **Periodic Plan Review**

This Environmental Compliance Plan (ECP) is reviewed at least annually. This review includes evaluation of the effectiveness of the plan, and incorporates changes necessary for the plan to be continuously administered.

The Operation Plan shall be updated as operations change but no less frequently than upon renewal DEP Operations Permit. DEP shall be notified of changes to the Operation Plan other than those required for routine maintenance. The Plan shall be revised to reflect any facility alterations performed or to reflect experience resulting from facility operation. Peavy and Son Construction Company will periodically review and revise the operating protocol, as appropriate, to ensure satisfactory system performance.

## Abnormal Events

In the event Peavy and Son Construction Company is temporarily unable to comply with any of the conditions of their DEP permit due to breakdown of equipment, power outages, and destruction by hazard of fire, wind, or by other cause, the Company will notify DEP. Notification will be made in person, by telephone, or by other means within 24 hours of breakdown or malfunction to the Northwest District Office of the Department of Environmental Protection. Phone number 850 595-8365 ext. 1220, day or night. For emergencies involving a significant threat to human health or the environment, the number is 850 320-0519.

A written report of any noncompliance referenced above shall be submitted to the Northwest District Office of DEP within 30 days after its occurrence.

The address is:

Air Program  
Department of Environmental Protection  
160 Governmental Center  
Pensacola, FL 32502-5794

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 time when the facility will again be operating in accordance with permit conditions.

If an emergency arises or there are any conditions, which prevents the continued operation of the emission control components or results in non-compliance with applicable regulations, the operator will:

Stop production immediately.

Notify main

Ensure that the emission control components are in good working order before resuming production.

## Forms



**Peavy & Son Construction Company, Inc.  
Midway Plant**

**Baghouse/Burner Log**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Time							
Baghouse Differential Pressure "WG							
Stack Visual Inspection							
Total Production Tons							
Est. Fuel Usage							
Baghouse Pulse System Checked							
Auger Systems Checked							

**Stack Visual Inspection:**

- 0 = Ideal, normal
- 1 = Light steam (white), normal at start up, light-medium humid days or cold days
- 2 = Heavy Steam (white), start up on humid or cold days
- 3 = Barely visible Light blue/grey, getting too hot, check damper, burner heat, cold feeds
- 4 = Any other color, shut down, check baghouse for fire, repair burner

**Est. Fuel Usage**

\_\_\_\_\_ gal/ton x tons .

**Peavy & Son Construction Co., Inc. – Midway Plant**  
 Rolling 12-month Totals

Year \_\_\_\_\_

Month	Current Month	Rolling 12-month Total
	Current Month	Rolling 12-month Total
Asphalt Production (Tons)		
Est. Fuel Consumption (Gallons)		
Actual Fuel Consumption (Gallons)		
Hours of Operation		

Estimated fuel consumption is from Daily Log Sheets  
 Actual fuel consumption is from fuel delivery tickets

Peavy & Son Construction Co., Inc.  
 Facility ID No. 7775144

SITE INSPECTION

I APPEARANCE	Poor	Fair	Good	Excellent
1. Paint condition of Plant and Silo's house.				
3. Company sign at entrance.				
4. Appearance of entrance and landscaping.				
5. Condition of Berms, Fences and Retention Pond.				
6. Equipment and scrap parts properly stored.				
7. Overall appearance of plant and site.				

PAVEMENT AND DRIVES

8. Entrance				
9. Roads				
10. Plant Area				
11. Stockpile access area				
12. Parking areas				

II OPERATIONS

	YES	NO
1. Written Operation and Maintenance program		
2. Baghouse quarterly inspection, dye test & blacklight		
3. Baghouse monitored daily for visible emissions		
4. Spare Filter Bags on site		
5. Leaking bags immediately replaced		
6. Burner cleaned and tuned up annually		
7. Ductwork & fines return monitored for leaks		
8. Visible emissions from stack controlled		
9. Written plan for fugitive emissions		
10. Fugitive dust control for drives and roadways		
11. Fugitive dust control for plant area		
12. Fugitive dust control for stock pile areas		

SITE INSPECTION (CONTD)

III ENVIRONMENTAL	YES	NO
1. Management program for storage tanks		
2. Diesel tanks containment area		
3. Asphalt tank containment, if required		
4. Hot oil heater and plumbing properly maintained		
5. 55 gallon drums stored and disposed of properly		
6. Designated area for truck bed spray-down		
7. Spray-down area maintained		
8. Biodegradable release agent used		
IV SAFETY	YES	NO
1. Drives posted with traffic patterns		
2. Speed Limits posted		
3. Tarp load reminder signs		
4. Designated Parking areas		
5. Inspection stand for sampling loads		
6. Personal safety protection equipment		
7. Drive belt and chain guards in place		
8. Drive motor lock-out		
9. First Aid supplies		
V PERMIT COMPLIANCE	YES	NO
1. Permits posted on site		
2. Personnel trained and knowledgeable to permit requirements		
3. Certified personnel to read visible emissions		
4. Non-compliance problems corrected promptly		
5. Designated person to monitor compliance		

Site inspected: Batch Plant \_\_\_\_\_ Drum Mix Plant \_\_\_\_\_

Inspected By: \_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_