APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)

Stack Sampling Facilities Provided by the Owner of an Emissions Unit. This section describes the minimum requirements for stack sampling facilities that are necessary to sample point emissions units. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. Emissions units must provide these facilities at their expense. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within five days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.
2. The ports shall be capable of being sealed when not in use.
3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

(g) Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket shall be a standard 3 inch x 3 inch x one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

TABLE 297.310-1 CALIBRATION SCHEDULE

[Note: This table is referenced in Rule 62-297.310, F.A.C.]

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass Thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic Thermometer	Quarterly	Calib. liq. In glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004”
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually	Spirometer or calibrated wet test or dry gas test meter	2%
	2. One Point: Semiannually		
	3. Check after each test series	Comparison check	5%

Environmental Compliance Plan

For

H&T Contractors, L.L.C.

Milton, Florida

January 2015

Table of Contents

	Page
Introduction	3
Corporate Commitment	4
Operator Training	5
Plant Monitoring	6
Operation and Maintenance Plan	9
Facility Inspections	12
Third Party Consultant Oversight	14
Records	15
Periodic Plan Review	16
Abnormal Events	17
Daily Log	18

Introduction

This Plan provides additional information demonstrating the owner's commitment to operating this facility in compliance. This Plan provides assurance beyond reasonable assurance that the continued operation of the facility will be in accord with applicable laws and rules.

The detail of the Plan is consistent with the complexity of the system. The Plan was developed in accordance with the unique requirements of the individual facility and provides the operator with adequate information and description regarding the design, operation and maintenance features of the facility. The Plan includes basic engineering design criteria for the facility. In addition, information concerning process control and performance evaluation for the facility, as well as equipment and procedural descriptions (including any notification/reporting requirements of appropriate agencies) for emergency operating conditions, is included. Regular maintenance and repair instructions for plant equipment, and monitoring procedures are also included.

This Plan includes the following elements:

1. **Operator Training**: Concerning plant operation, permit and other regulatory requirements.

2. **Plant Monitoring**: Establishment and use of parameters to monitor plant operation such as baghouse pressure differential and visible emissions.

3. **Operation and Maintenance Plan:** Establishment and use of a plant specific Operation and Maintenance (O & M) Plan.

4. **Facility Inspections:** Use of periodic facility 'walk-through inspections' by plant staff with specific inspection guidelines, checklists and record keeping.

5. **Third-Party Consultant Oversight:** Use of periodic plant inspections by third party consultant staff to evaluate the plant's condition and adequacy of operation.

Corporate Commitment

Tindle Enterprises adheres to a strong, company-wide environmental program. The Company relies on a comprehensive environmental program, which was developed to ensure the highest commitment and quality from the business operation and from employees, as well as to protect and enhance the environment. This program includes an environmental policy, environmental auditing procedures, and employee education and involvement. All of our managers realize that it is just good business to protect the environment.

Operator Training

This Plan includes an annual 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, laboratory personnel, and others as appropriate, by the permitted facility. The Plan will be available for reference at the facility.

All employees will be trained within 90 days after commencement of employment and prior to unsupervised plant operation. In addition, weekly safety meetings are required for all plant personnel, and often cover environmental topics including air permit requirements.

The operators are properly trained to operate the facility. This training will be used to adequately train operators to operate the facility in accordance with requirements imposed by the facility's air permit.

Environmental education is key for 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 that apply to their particular workplaces.

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 they, in turn, teach their employees.

Plant operators also get trained on how to read opacity from their stacks, which of course, is very important when running the asphalt plant.

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 is 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 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, inlet and outlet
- bag cleaning conditions
- pulse: 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. Proper operation of baghouse dust collector requires the use of differential pressure gauge (magnehelic) that can indicate a sudden decrease in pressure (a system leak) or a sudden rise in pressure (blinding 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 manometer indicates the pressure differential across the filter elements in inches of water.

All asphalt plants have a small amount of fines aggregate carryout from the dryer or the drum mixer. 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 control the pressure differential across the filters, a cyclic timer periodically actuates the solenoid valves that deliver momentary surges of high-pressure air. These surges are discharged through orifices at high velocity, causing a reverse flow of air filter elements for cleaning.

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

- pressure drop (Delta P) across 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 a filter cake
- bag failure
- baghouse structural failure
- cyclone or 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 acquired will be reviewed to determine the typical operating range of pressure drop for this baghouse (site specific data). After this operating range is determined, 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.

Additionally, the permit requires annual particulate matter testing using EPA Method 5, to determine compliance with Department 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 also be conducted by the plant operator, as part of the daily inspection (See Facility Inspections).

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

The operating parameter of the control device, recorded at least once per operating day, is the pressure drop across the filter bags.

Daily:

Record Differential Pressure (dp)	4.0 average " of water

Operation and Maintenance Plan

This section establishes a plant specific Operation and Maintenance (O & M) Plan. This element 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 will be 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 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 Operation and Maintenance Plan included identification of the control device for each emissions unit subject to provisions of Plan, including the following design specifications and other descriptive data:

Manufacturer:	**Astec**
Model name and number:	**SBH-42**
Type:	**Pulse jet baghouse**
Design flow rate (gas)	**46,000 CFM**
Efficiency rating at design capacity	**99.8%**
Pressure drop	**3.5 - 5.5 " 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	**175 TPH**
Process temperature or pressure	**300 F**
Fuel	**#2 fuel oil or on-spec waste oil.**

NOTE: **Maximum sulfur content is 0.6% for either fuel**

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

Startup and Shutdown 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 to see that manometer lines are hooked up correctly.
- At start-up, preheat baghouse to 250 - 300 F before aggregate is discharged into dryer. Preheating time will vary according to ambient temperature and moisture conditions at plant site, usually 1 to 3 minutes will provide adequate pre-heating and drying out. NOTE: 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.
- Bypass chute is used for a short time only while the plant is being started and brought up to operating temperatures so that dry aggregate is not delivered into asphaltic concrete silo. Aggregate is discharged through this chute until it reaches 100 F and liquid asphalt begins to be sprayed into aggregate to crease asphaltic concrete. At that time bypass chute is closed and asphaltic concrete will be delivered into storage silo(s).
- Chute extension must reach front-end loader bucket in order to control fugitive emissions during plant startup.
- 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.
- If at any time, a constant stream of dust is being emitted from fan stack, check for a mechanical leak or worn or torn bag. 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 RTV 732 silicone sealant. This type sealant 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 door is opened to check equipment, repairs or changes.

Routine Maintenance Includes:

WEEKLY

Apply grease to all grease fittings

Adjust belt tension

Clean compressed air filter and water trap

MONTHLY

Blow out differential pressure lines

ANNUALLY

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

These preventive maintenance procedures include changing the bags in the baghouse as needed, and tuning the burner for maximum burner efficiency as needed.

Facility Inspections

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

Daily inspections are made by the plant operator prior to plant startup. Inspection log will be completed for each inspection and maintained in facility records. Company environmental director will inspect the facility quarterly. Baghouse pressure drop will be monitored on a daily basis to make sure the baghouse is running efficiently. Baghouse/Burner log will be completed daily during operation and maintained in daily log.

The operator will make a daily inspection of the emission control components and maintain the emission control components 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 preventative maintenance program. The documentation of inspections, observations and maintenance will help determine the baghouse operating efficiency and help prevent a plant from reaching non-compliance status.

A timetable of routine observations of the pollution control device is:

DAILY

- Record Differential Pressure
- Row by Row timer sequencing
- Are Solenoids operating?
- Diaphragm valves firing?
- Hopper discharge device operating?
- Any visible stack emissions?

WEEKLY

- Record compressed air reading
- Check tube sheet for bag leaks
- Check that hopper is empty

MONTHLY

- Check access door seals for leaks
- Check door seals for deterioration
- Check air lines and fittings for leaks

SEMI-ANNUALLY

- Inspect all accessible functional spaces
- 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

Third Party Consultant Oversight

This element provides for the use of periodic plant inspections by third party consultants to evaluate the plant's condition, and adequacy of operation. The general condition of the emission control equipment will be evaluated by third party consultants during annual emission testing, in accordance with Rule 62-297.310(8)9CO(6).F.A.C.

Records of these inspections will be provided to DEP as part of the emission test report.

Records

Records of inspections, maintenance and performance data of control devices and auxiliary equipment shall be retained by the emissions unit for a minimum of five years and shall be made available to the Department 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 requirements shall include:

- Records of control equipment operating parameters

- Maintenance records on the control equipment, including black-light test(s), bag replacement(s), structural repairs and motor replacements.

- Records of control system malfunctions or failures and corrective actions taken.

- Records of compliance tests required by the Department (reported within 45 days after the completion of the tests).

Periodic Plan Review

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

Abnormal Events

In the event the Company is temporarily unable to comply with any of the conditions of a permit due to breakdown of equipment, power outages, and destruction by hazard of fire, wind, or by other cause, the Company will notify the Department. 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 DEP. The telephone number to call to notify DEP is 850 595-8364 ext. 1220. 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 reoccurrence, 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 operation will stop immediately. Plant personnel will notify Area Superintendent(s), as soon as practically possible, of the time, date and nature of the occurrence and the corrective action taken and ensure that the emission control components are in good working order before r2`esuming production.

DAILY PLANT REPORT

DATE _____

LOADS	MIX	JOB NAME	JOB NO.	TONS MIXED	TONS SOL

TONS MIXED (TOTAL) _____ TOTAL TONS SOLD _____ TONS LOST _____

CARS _____ MAGNETIC _____ MOISTURE _____

TICKETS _____ RUN TIME _____

MATERIALS RECEIVED

MATERIAL	VENDOR	AMOUNT

PLANT MANAGER _____

Air Permit
Time Sensitive Action Chart

[If any of the time deadlines in the Air Permit Action List are inconsistent with a time deadline in a permit condition, the time deadline in the permit condition shall be followed.]

SOURCE	ACTION	DUE DATE
Facility-Wide	Annual Operating Report [Rule 62-210.370(3), F.A.C.]	April 1 - annually
Facility-Wide	Permit Renewal Application [Rules 62-44.090, F.A.C.]	60 days prior to expiration of permit
Facility-Wide	Reporting problems, malfunctions or exceedances [Rule 62-4.130, F.A.C.]	Event Notification – Immediately
Facility-Wide	Special Compliance Tests [Rule 62-297.310(7)(b), F.A.C.]	As required by the Department
EU-002	On-Site Recordkeeping [Rules 62-4.070(3) and 62-210.300(3)(c)2.g., F.A.C.]	Available at time of inspection
	VE and PM Test Notification [Each federal fiscal year] [Rule 62-297.401(5), F.A.C.]	Annually - 15 days before testing
	VE and PM Test Report [Each federal fiscal year] [Rule 62-297.310(8)(b), F.A.C.]	45 days after testing