OPERATION AND MAINTENANCE PLAN

C. W. Roberts Contracting, Inc.
Tallahassee Asphalt Plant
Leon County, Florida
Facility ID No. 7770100

Plan Date: November 24, 2014
Submitted for renewal of 7770100-006-AO

519-14-09

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1.0 INTRODUCTION

This Operation and Maintenance Plan ("Plan") is submitted to Florida Department of Environmental Protection for the C. W. Roberts Contracting, Inc., Tallahassee Asphalt Plant, Facility Identification Number 7770100.

This Plan provides additional information demonstrating the owner's commitment to operating this facility in compliance with the facility's air operation permit.

This Plan provides reasonable assurance that the continued operation of the facility will be in accordance with applicable laws and rules of this permit.

This Plan was developed in accordance with the unique requirements of the individual facility and provides the operator with adequate information and requirements of the proper operation and maintenance features of the facility. Regular maintenance and repair instructions for plant equipment and monitoring procedures are included.

This Plan provides information concerning proper process control and performance evaluation for the facility.

This Plan provides equipment and procedural descriptions (including any notification/reporting requirements of appropriate agencies) for emergency operating conditions.

This plan includes the following elements:

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

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

3. **Operation and Maintenance Schedule**: Establishment and use of a plant specific Operation and Maintenance schedule, including facility inspections.

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

5. **Record Keeping**: Required records according to the facility air operation permit.

2.0 OPERATOR TRAINING

Responsible personnel will be trained according to this Plan. A copy of the approved Plan will be available at the facility to the operators, maintenance personnel, technicians, laboratory personnel, and others as appropriate. This Plan will be available for reference at the facility.

Training involves an overview of the following sections of the plan.

3.0 PLANT MONITORING

This section establishes the use of parameters to monitor plant operation of pressure differentials and visible emissions. The monitoring will be carried out in the manner described in this Plan.

3.1 Pressure Drop

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 and buildup of pressure across the baghouse filters. In order to control the pressure differential across the filters, a cyclic timer periodically shuts off flow to an alternating portion of the filter bags. Air flow is then reversed through these bags to remove particulate and clean the filter bags. Following the cleaning, exhaust gas flow is again directed through the bags until bag pressure indicates cleaning is required. This cleaning process will sequentially occur through alternating portions bag elements.

The pressure drop across the baghouse is the most useful parameter to monitor baghouse performance. A given baghouse will operate properly within a pressure drop range. The facility uses an automated computer-controlled fabric filter baghouse to maintain proper baghouse operation. The baghouse computer system is programmed to modify the cycling time of the bag flushing in order to maintain the operational baghouse pressure drop between 3 and 8 inches of H_2O.

The baghouse parameters that may affect the pressure drop generally include the following indicators:

- Gas flowrate
- Air to cloth ratio
- Bag weave
- Bag material
- Gas temperature, inlet and outlet
- Bag cleaning conditions:
- Pulse: air pressure

The computer control panel is located in the plant control house and will alert the plant operator if the baghouse pressure drop exceeds the acceptable range of inches of H_2O.

If the automated baghouse control system alerts the plant operator that the pressure exceeds the ranges, the operator must determine the cause of the exceedance. The following parameters can cause an exceedance.

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
- Fan malfunction or failure

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

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

Any pressure drop values which fall significantly outside the operating 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.

3.2 Pollutant Emissions

Additionally, the air permit requires annual particulate matter emissions testing using EPA Method 5, to determine compliance with the air permit (which addresses State of Florida rules and Federal Rules). Each such annual testing event provides an opportunity to evaluate a possible correlation between baghouse pressure drop, opacity and particulate matter emission rate. Visible emissions by EPA Method 9 are performed on the RAP crusher per the requirements of the RAP crusher general permit (this requirement is listed in the air permit). Fugitive emissions are contained per reasonable precautions described in the permit general conditions.

4.0 OPERATION AND MAINTENANCE SCHEDULE

This section establishes a plant specific Operation and Maintenance schedule. 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. 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.

The following Operation and Maintenance schedule includes a schedule for the maintenance and inspection of the plant.

Tasks of Operation and Maintenance

DAILY:

1. Record hours of operation, production, and fuel use.
2. Check pressure drop across baghouse and record in log sheet.

3. Observe stack outlet visually to assure there are no excessive visible emissions.

4. Check cleaning cycle of baghouse.

5. Review/record fuel analysis for sulfur content on hot oil heater and burner.

6. Monitor discharge system to make sure dust is removed as designed.

7. Follow proper startup and shutdown procedures per manufacturer guidelines.

MONTHLY:

1. Check all moving parts on dust discharge system: screw-conveyor bearings.

2. Blow out manometer lines.

3. Verify temperature-indicating equipment.

4. Spot check for bag leaks and holes.

ANNUALLY:

1. Check bag-cleaning sequence.

2. Check exhaust fan blades for wear.

3. Check dust for dust buildup.

4. Check gasket on all doors.

5.0 THIRD-PARTY CONSULTANT OVERSIGHT

The general condition of the emissions control equipment will be evaluated by third-party consultants during annual emissions testing, in accordance with Rule 62-297.310(8)(c)(6), F.A.C.

6.0 RECORDS

This Plan includes record keeping operation parameters required by permit that indicate the monthly and twelve-month rolling totals of rate and hours of operation, process weight throughput, and the fuel usage rate. This record keeping is required by permit Condition No. A.4 and A.13. (note: permit conditions numbering may change in most current permit):

Permit Condition A.4: The owner shall maintain records to demonstrate that each shipment of fuel oil has 1.0% or less sulfur and that the sulfur content was determined by ASTM methods ASTM D4057-88 and ASTM D129-91, ASTM D2622-94 or ASTM D4294- 90, adopted and incorporated by reference in Rule 62- 297.440(1).

Permit Condition No. A.13: The owner or operator shall maintain records to document the monthly and the twelve-month rolling totals of asphalt concrete produced, RAP processed, and fuel consumed (by the asphalt concrete plant and portable RAP crusher) as per

Additional recordkeeping consists of information that is recorded regularly and on specific events. Records of inspections, maintenance and performance data of control devices and auxiliary equipment shall be retained in accordance with the facility permit and shall be made available to the Department upon request.

Records of control equipment operating parameters are kept that include:

1) Maintenance records on the control equipment, such as black-light tests, bag replacements, structural repairs, and motor replacements,
2) Records of control system malfunctions or failures and corrective actions taken, and
3) Results of compliance tests required by the Department reported within 45 days after the completion of the tests.

7.0 PERIODIC PLAN REVIEW

This Plan will be reviewed at least every five years at permit renewal and upon equipment or process changes that affect the operation and maintenance of the facility. This review will evaluate the effectiveness of the Plan, and will identify necessary changes that need to be made for the Plan to be continuously administered and to ensure satisfactory system performance. The Department shall be notified of changes to the Plan other than those required for routine maintenance.

8.0 ABNORMAL EVENTS

In the event that C.W. Roberts is temporarily unable to comply with any of the conditions of a permit due to breakdown of equipment, power outages, destruction by hazard of fire, wind, or by other cause, C.W. Roberts will notify the Department. Notification shall be made in person, by telephone at (850) 595-

0671 or by other means within 24 hours of breakdown or malfunction to the office of the Department that issued the permit (Northwest District).

9.0 EMERGENCY PROCEDURES

Incidents involving significant threat to human health or the environment should be immediately reported to the State Warning Point at (800) 320-0519. If an emergency arises or there is any condition which prevents the continued operation of the emission control components or results in non-compliance with applicable regulations, the operator will:

(a) stop production immediately;

(b) notify the Department, as soon as practically possible, of the time, date and nature of the occurrence and the corrective action taken, and;

(c) ensure that the emission control components are in good working order before resuming production.