

LANE REGIONAL AIR POLLUTION AUTHORITY  
AIR CONTAMINANT DISCHARGE PERMIT

REVIEW REPORT

McCafferty-Whittle Construction Co., Inc.

Permit No. 205170

1. General Background Information

McCafferty-Whittle Construction Co., Inc. operates a portable asphalt production operation in Lane County. The process includes a CMI Corporation drum mixer and Venturi scrubber. The facility was manufactured in 1986. Combustion of distillate fuel oil No. 2 is used as the heat source for the process. The source produces a maximum of 365 tons per hour, and 100,000 tons per year. The source operates 600 hours per year in Lane County (10 hours per day, 6 days per week, 10 weeks per year).

2. Reasons for Permit Issuance

This source is listed in LRAPA Regulations Title 34, Table A, Part II and, therefore, is required to have an Air Contaminant Discharge Permit (ACDP). This is a new facility applying for a new ACDP.

3. Enforcement Actions

A Notice of Non-Compliance (NON 1813) was issued to the facility on September 3, 1999, for operating an asphaltic concrete plant in Lane County without obtaining an ACDP from LRAPA. The location of the violation was on Fuji Mountain Road, near the Salt Creek Tunnel on Highway 58. The source began operating the asphalt plant in Lane County on July 21, 1999.

4. Performance Testing

According to information in the facility's permit from the Department of Environmental Quality (Permit No. 37-0462) a source performance test was completed in 1990. The test measured the emissions from the wet scrubber exhaust stack. Average PM emissions were measured at 0.02 grains per dry standard cubic foot (gr/dscf) using an average production rate of 300 tons per hour.

5. Production Limits

The facility is limited to producing no more than 100,000 tons per year, or 365 tons per hour, of product. The facility is limited to no more than 600 hours of operation in Lane County.

6. Plant Site Emission Limits (PSELs)

The regulated pollutants emitted from processes at this facility are particulate matter (PM), and Volatile Organic Compounds (VOCs).

The source did not exist during the baseline period (1979). Baseline

emissions rates (BERs) for all criteria pollutants are set at 0 tons per year.

PM PSELS are based on the source performance test from 1990, the VOC PSEL is based on an emission factor provided by the manufacturer of the facility, CMI Corporation (CMI). Information from the facility's permit with the Oregon DEQ is also used. Emissions are calculated as follows:

Emission Point	Operating Parameter	Emission Factor	Reference	Estimated Emissions
Exhaust Stack	600 hrs/yr	Long term = 5.51 lbs/hr PM	Test/ DEQ Permit	PM = 1.7 tons/yr
Exhaust Stack	1 hr	Short term = 10.10 lbs/hr PM	Test/ DEQ Permit	PM = 10.10 lbs/hr
Exhaust Stack	600 hrs/yr	10.25 lbs/hr VOC	CMI Corp.	VOC = 3.07 tons/yr
Exhaust Stack	1 hr	10.25 lbs/hr VOC	CMI Corp.	VOC = 10.25 lbs/hr
Exhaust Stack	100,000 tons/yr	0.0336 lb/ton CO	AP-42, Table 11.1-8, oil-fired	CO = 1.7 tons/yr
Exhaust Stack	365 tons/hr	0.0336 lb/ton CO	"	CO = 12.3 lbs/hr
Exhaust Stack	100,000 tons/yr	0.075 lb/ton NO <sub>x</sub>	"	NO <sub>x</sub> = 3.8 tons/yr
Exhaust Stack	365 tons/hr	0.075 lb/ton NO <sub>x</sub>	"	NO <sub>x</sub> = 27.4 lbs/hr
Exhaust Stack	100,000 tons/yr	0.056 lb/ton SO <sub>2</sub>	"	SO <sub>2</sub> = 2.8 tons/yr
Exhaust Stack	365 tons/hr	0.056 lb/ton SO <sub>2</sub>	"	SO <sub>2</sub> = 20.4 lbs/hr

**Estimated Emissions = Operation Parameter x Emission Factor**

Yearly Estimated Emissions results for CO, NO<sub>x</sub>, and SO<sub>2</sub> are converted to tons (1 ton = 2000 pounds) and assume emissions are uncontrolled.

The following PSELS are proposed.

**Annual PSELS**  
(tons)

Source	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
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Asphalt Production Operations	1.0	--	2.8	3.8	1.7	1.7
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**Hourly PSELS**  
 (pounds)

Source	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Asphalt Production Operations	10.1	--	20.4	27.4	12.3	10.25

7. PM Emission Limitation and Visible Emissions

LRAPA's process weight rule limits emissions of PM for specific processes as a function of the amount of material processed. [LRAPA 32-045(A)] At the maximum allowable hourly rate for this equipment, which is 300 tons per hour, Title 32, Table I, limits the PM emissions to the following:

$$\begin{aligned}
 \text{Emission Limit} &= (55.0 \times 365^{0.11}) - 40 \\
 &= 65.2 \text{ lbs/hr}
 \end{aligned}$$

The PM PSEL for the rock-crushing operation is 10.1 pounds per hour. Therefore, this source will be in compliance with the process weight emission limit if the source is in compliance with the hourly PSEL.

Visible emissions from the portable asphalt plant must not equal or exceed 20% opacity. [LRAPA 32-010]

The permit also contains requirements on emissions from ancillary sources including housekeeping of plant facilities and the handling of aggregate and traffic.

8. Other Limitations

Since the source is located within a special control area as defined in LRAPA Title 33-075(G), the source is required by LRAPA Title 33-075(2)(B) to comply with the process weight rule, the 20% opacity limit and grain-loading limit. These rules are specified in the permit.

9. Pollution Controls and Typically Achievable Control Technology (TACT)

LRAPA 32-008 requires an existing source to meet TACT if the source is required to have a permit and the emissions of PM are greater than five (5) tons per year. This source satisfies this criteria and is, therefore, required to meet TACT. Emissions of PM from this source will be controlled by the use of a wet scrubber. This type of control

equipment is considered TACT for this industry.

10. New Source Review (NSR) and Prevention of Significant Deterioration (PSD)

This requirement applies to major new sources or major modifications. Because the emissions of PM, PM<sub>10</sub>, VOC, CO, NO<sub>x</sub>, and SO<sub>2</sub> are below the Significant Emission Rates (SERs) in LRAPA Title 38, the source is not subject to the NSR and PSD requirements.

11. New Source Performance Standards (NSPS)

This source does not meet the definition of a new non-metallic mineral processing plant due to date of construction. Also, according to LRAPA Title 46 (Section 46-714), affected facilities which are not located at a major source are not subject to NSPS. Since this source is not a major source, and since it does not operate any affected facilities it is not subject to NSPS.

12. Monitoring

The source is required to maintain the following information for a period of two (2) years at the plant site and required to make available for inspection by authorized representatives of LRAPA:

- a. Hours of operation and material throughput (recorded daily).
- b. A description of any maintenance to air contaminant control systems (recorded on occurrence).

13. Production Limits

This source is permitted for a maximum production rate of 365 tons per hour of product and 100,000 tons per year of product. The source is required to keep hours of operation and material throughput records for verification of this limit. Compliance with the short-term PSEL is assured because the source is permitted at the maximum hourly production rate for its equipment.

14. Testing Requirements

A source test was completed in 1990. At this time no further testing is required.

15. Reporting Requirements

The facility is required to notify LRAPA in writing ten (10) days prior to the relocation of the portable asphalt plant.

The source is required to submit an annual summary for the information required by Condition G15.

16. Public Notice

This permit establishes Plant Site Emission Limits (PSELs) for the source and 1978 baseline year emissions of 0 tons per year for PM, PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOC. The proposed PSELs for the facility are equal to the potential to emit of the source, which are based on a design capacity of 365 tons per hour and 100,000 tons per year for asphalt production. Because the proposed annual PSELs are less than the Significant Emission Rates (SERs) for PM, PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOC in LRAPA Rule 38, the source is not subject to the New Source Review (NSR), and Prevention of Significant Deterioration (PSD) requirements. Additionally, because this facility is not located at a major source, it is not required to comply with the New Source Performance Standards (NSPS) for non-metallic mineral processing plants.

The draft permit was placed on public notice from **January 10, 2000**, to **February 9, 2000**. No written comments were received during the 30-day comment period.

MH/bp  
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