

Lane Regional Air Pollution Authority
Air Contaminant Discharge Permit

REVIEW REPORT

Oakridge Sand & Gravel, Inc.

Permit No. 202814

1. General Background Information

Oakridge Sand & Gravel operates a portable rock crusher and a batch concrete plant in Oakridge.

2. Reasons for Permit Issuance

This source is listed in Part II of Table A and, therefore, is required to have an Air Contaminant Discharge Permit (ACDP). This is an existing facility applying for a renewal of its ACDP.

3. Performance Testing

Applicable requirements do not call for performance testing to be completed by this source.

4. Plant Site Emission Limits (PSELS)

The main regulated pollutants emitted from processes at this facility are particulate matter (PM) and particulate matter less than ten microns in diameter (PM₁₀).

The source existed during the baseline period (1978). However, no credit can be given for emissions during the baseline period since the operation has moved to a different location. Therefore, the baseline emissions for both PM and PM₁₀ are 0 tons per year.

Based on DEQ emission factors and information contained in the permit application, the emissions of PM from the batch concrete plant are estimated to be:

$$1400 \text{ yd}^3/\text{year} \times 0.2 \text{ lb/yd}^3 \times \text{ton}/2000 \text{ lbs} = 0.14 \text{ ton/year}$$

Because the estimated emissions from the batch concrete plant are less than 0.5 ton per year, they will not be included in the PSEL for the source. This is consistent with DEQ guidance.

PM and PM₁₀ PSELS were calculated based on DEQ emission factors for rock crushers controlled with water sprays, the maximum hourly design rate of 150 tons per hour for the rock-crushing equipment, and a production limit of 300,000 tons per year for the maximum yearly throughput, which is the maximum allowable for the category under which the source is being permitted (LRAPA Title 34, Table A, Part II, 42.c). Should the facility wish to increase production, the permittee will have to apply for a permit modification, including a new assessment of fees.

The annual and hourly PSELS were calculated as follows:

$$\begin{aligned} \text{Annual PM}_{10} \text{ PSEL} &= 300,000 \text{ tons/year} \times 0.02 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} \\ &= 3.0 \text{ tons/year} \end{aligned}$$

Hourly PM₁₀ PSEL = 150 tons/hour x 0.02 lb/ton
 = 3.0 lbs/hour

Annual PM PSEL = 300,000 tons/year x 0.125 lb/ton x ton/2000 lbs
 = 19 tons/year

Hourly PM PSEL = 150 x tons/hour x 0.125 lb/ton
 = 19 lbs/hr

The following PSELs are proposed.

Hourly PSELs
 (pounds)

| Source | PM ₁₀ | PM | SO _x | NO _x | CO | VOC |
|-------------------------|------------------|----|-----------------|-----------------|----|-----|
| Rock Crushing Operation | 3.0 | 19 | NA | NA | NA | NA |

Annual PSELs
 (tons)

| Source | PM ₁₀ | PM | SO _x | NO _x | CO | VOC |
|-------------------------|------------------|----|-----------------|-----------------|----|-----|
| Rock Crushing Operation | 3.0 | 19 | NA | NA | NA | NA |

5. 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 hourly design rate for this equipment, which is 150 tons per hour, Title 32, Table I, limits the PM emissions to the following:

Emission Limit = $(55.0 \times 150^{0.11}) - 40$
 = 55.4 lbs/hour

The expected PM emissions from the rock-crushing operation are 19 pounds per hour. Therefore, this source will be in compliance with the process weight emission limit and no further controls are required. Since the hourly PSEL is more stringent than the process weight emission limit, the source will be deemed in compliance with the process weight emission limit if the source is in compliance with the hourly PSEL.

Visible emissions from the rock crusher and the batch concrete plant must not exceed 20% opacity. (LRAPA 32-010)

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

LRAPA 32-008 requires a 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 water sprinklers. This type of control equipment is considered TACT for this industry. Preventive maintenance will be required for the control equipment as a means to assure effective performance.

7. New Source Review and Prevention of Significant Deterioration

This requirement applies to major new sources or major modifications. Because the emissions of PM and PM₁₀ are below the Significant Emission Rates (SERs) of 25 and 15 tons per year, respectively, in LRAPA Title 38, the source is not subject to the New Source Review (NSR) requirements for major sources of PM and PM₁₀.

8. New Source Performance Standards (NSPS)

This source meets the definition of a new non-metallic mineral processing plant. 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 facility is not located at a major source, it is not subject to NSPS.

9. Monitoring

The owner/operator shall maintain records of control equipment maintenance.

10. Production Limits

This source is permitted for a maximum production rate of 300,000 tons per year of product. The owner/operator shall keep material throughput records for verification of this limit.

11. Public Notice

This permit establishes PSELS for the source and 1978 baseline year emissions of 0 tons per year for PM and PM₁₀. The proposed PSELS for the facility are equal to the potential to emit of the source, which are based on a design capacity of 150 tons per hour and a production limitation of 300,000 tons per year for the rock crusher. Because the proposed annual PSELS are less than the Significant Emission Rates (SERs) for PM and PM₁₀ in LRAPA Rule 38, the source is not subject to the NSR requirements for PM and PM₁₀. Additionally, because this facility is not located at a major source, it is not required to comply with the NSPS for non-metallic mineral processing plants.

The draft permit was on public notice from April 13, 1999, to May 14, 1999. No comments or requests for a public hearing were received during the 30-day comment period.