

Lane Regional Air Protection Agency
Standard Air Contaminant Discharge Permit

REVIEW REPORT

Wildish Sand & Gravel Co.
Plant 2, Stationary Rock Crusher

Permit No. 208893

1. General Background Information

Wildish Sand & Gravel Co. operates a stationary rock-crushing operation in Eugene, Oregon. The facility produces a maximum of 700 tons per hour of finished product. The facility operates approximately 4,992 hours per year (16 hours per day, 6 days per week, and 52 weeks per year).

2. Reasons for Permit Issuance

This facility is listed in LRAPA Title 37, Table 1, Part B and therefore is required to have an Air Contaminant Discharge Permit (ACDP). This is an existing facility applying for a renewal of its ACDP. The facility has elected to maintain the baseline emission rate and as such the permit is being changed from a "Regular" to a "Standard" ACDP as part of this renewal.

3. Performance Testing

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

4. Enforcement Actions

There have been no enforcement actions against the facility.

5. Plant Site Emission Limits (PSELs)

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

The facility existed during the baseline period (1978). The production rate in 1978 was 1,150,000 tons per year as reported in the LRAPA Emission Inventory file for this facility. Current baseline emissions and Plant Site Emission Limits (PSELs) are based upon ODEQ's emission factors for rock crushers. Previous baseline emissions estimates used the more detailed factors from AP-42. However, for consistency, the ODEQ factors are employed with this renewal. The baseline emissions are estimated to be 23.6 tons per year for PM and 11.5 tons per year of PM₁₀. The table below summarizes the facility's annual plant site emissions.

Pollutant	Baseline (tons/year)	Annual Emission Limit (tons/year)	Increase Over Baseline (tons/year)	Significant Emission Rate (tons/year)
PM	23.6	48	24	25
PM ₁₀	11.5	25	14	15

Site specific PSEL were set by adding the Generic PSEL to the facility's netting basis.
The following PSELs are proposed.

**Annual PSEL
(12-month rolling)
(tons/year)**

Source	PM	PM ₁₀
Rock Crushing Operations	48	25

6. PM Emission Limitation and Visible Emission

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 700 tons per hour, Table I of Title 32 limits the PM emissions to the following:

$$\begin{aligned} \text{Emission Limit} &= (55.0 \times p^{0.11}) - 40 \\ &= (55.0 \times 700^{0.11}) - 40 \\ &= 73.1 \text{ lbs/hr} \end{aligned}$$

The annual PM PSEL on an hourly basis for the rock-crushing operation is 28.7 pounds per hour. Since the annual PSEL is more stringent than the process weight emission limit, the facility will be deemed in compliance with the process weight emission limit if the facility is in compliance with the annual PSEL.

The permit contains limits on grain-loading and visible emissions.

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

LRAPA 32-008 requires an existing source to meet TACT if the facility is required to have a permit and the emissions of PM are greater than five (5) tons per year. This facility satisfies this criteria and is, therefore, required to meet TACT. Emissions of PM from this facility will be controlled by the use of water sprays or their equivalent at all screening points and on other areas of the facility as required by the Fugitive Dust Control Plan. This type of control equipment is considered TACT for this industry.

8. New Source Review and Prevention of Significant Deterioration

Because the proposed PSELs for all regulated pollutants are below the Significant Emission Rates (SERs) in LRAPA Title 38, the facility is not subject to LRAPA's New Source Review (NSR) requirements for PM₁₀ nor the Prevention of Significant Deterioration (PSD) requirements for SO_x, NO_x, CO, and VOC.

9. New Source Performance Standards (NSPS)

This facility 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 facility is not a major source, and since it does not operate any affected facilities it is not subject to NSPS.

10. Monitoring and Recordkeeping Requirements

The facility is required to maintain a record of the following data for a period of two (2) years :

<u>Parameter</u>	<u>Minimum Recording Frequency</u>
a. Hours of operation and material throughput	Daily
b. A description of any maintenance to air contaminant control systems	On occurrence
c. Length and description of all times when water sprays are not used.	On occurrence
d. PSEL Compliance Monitoring.	Monthly

11. Reporting Requirements

The facility is required to submit an annual summary for the information required by Condition 12 and Condition G15.

12. Production Limits

There are no production limits specified in the permit. The facility is required to record throughputs and perform monthly calculations to determine compliance with the 12-month rolling annual PSELs.

13. Operation and Maintenance Plan

The facility is required to maintain water spray control devices on all three (3) screening points at the plant site. Emission estimates and the annual production limit are based on emission factors which assume that the three (3) transfer points are controlled with water sprays.

The facility is also required to submit to LRAPA for approval a Fugitive Dust Plan for minimizing emissions of fugitive PM and PM₁₀ (Appendix A contains the LRAPA-approved Fugitive Dust Plan.)

14. Public Notice

The draft permit was on public notice from March 30, 2009 to May 4, 2009. No written comments were submitted during the 35-day comment period.

ROCK CRUSHER EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	Emission factor units
Rock crusher	PM	0.041	lb/ton of rock crushed
	PM ₁₀	0.02	lb/ton of rock crushed
Generator(s) (oil-fired)	PM/PM ₁₀	42.5	lb/1000 gallon of fuel burned
	SO ₂	39.7	lb/1000 gallon of fuel burned
	NO _x	604	lb/1000 gallon of fuel burned
	CO	130	lb/1000 gallon of fuel burned
	VOC	49.3	lb/1000 gallon of fuel burned
Generator(s) (natural gas, propane, and butane - fired)	PM/PM ₁₀	10	lb/million cubic feet of NG burned
	SO ₂	0.6	lb/million cubic feet of NG burned
	NO _x	2840	lb/million cubic feet of NG burned
	CO	399	lb/million cubic feet of NG burned
	VOC	116	lb/million cubic feet of NG burned