

Lane Regional Air Pollution Authority
Air Contaminant Discharge Permit

REVIEW REPORT

Willamette Graystone, Inc.

Permit No. 208876

1. Lane Regional Air Pollution Authority (LRAPA) has reviewed the Air Contaminant Discharge Permit (ACDP) application submitted by Willamette Graystone, Inc. The contents of the application and subsequent correspondence with the source were the basis for the calculations contained within this review report.

Source Background and Description

2. Willamette Graystone operates a cement block manufacturing operation at 3700 Franklin Blvd in Eugene, Oregon. The source was in operation in 1978.
3. The source consists of the following operations and control devices:
 - A. Concrete Block Manufacturing:
 - 1 Cement Silo -- exhaust vent bag
 - 1 Flyash Silo -- exhaust vent bag
 - 1 Concrete Mixing Plant -- wet mixing
 - B. Natural Gas-Fired Steam Cure Ovens
 - C. Retail Space
 - D. Office Space
 - E. Cement Block Storage
 - F. Gravel Road Surface (400 feet)
4. This source is located in a non-attainment area for PM₁₀ and attainment for the remainder of the criteria pollutants.
5. This source is located within 100 kilometers of four (4) Class I air quality protection areas.
6. The Land Use Compatibility Statement was received on July 13, 1998, by the City of Eugene.
7. This source is not subject to New Source Review (NSR) for PM₁₀.
8. This source is not subject to Prevention of Significant Deterioration (PSD) for the affected criteria pollutants.

Emissions Information

9. The information submitted by Willamette Graystone was used to estimate the emissions.

Emission Calculations

Cement and Flyash Silos

Assumptions:

- a. 6 trucks (deliveries) per week.
- b. 75,000 pounds of material per truck.
- c. 45 minutes per truck - unload time.
- d. AP-42 Emission factor of .27 pounds of filterable PM per ton of material transferred.
- e. 90% silo bag efficiency.
- f. Hours of operation: 10 hours per day, 6 days per week, 48 weeks per year.
- g. Maximum delivery rate throughput (for PTE calculation) => 50.0 tons per hour.

Annual (Actual) Emissions (tons/yr): **PM = 0.15**

$$\frac{(37.5 \text{ tons}) \times (288 \text{ trucks}) \times (.27 \text{ lbs}) \times (1 \text{ ton}) \times (1-.9)}{(1 \text{ truck}) \times (1 \text{ year}) \times (1 \text{ ton}) \times (2000 \text{ lbs})}$$

Hourly (Actual) Emissions (pounds/hr): **PM = 1.35**

$$\frac{(37.5 \text{ tons}) \times (.27 \text{ lbs}) \times (1-.9)}{(.75 \text{ hour}) \times (1 \text{ ton})}$$

10. No PSEL is required for this source since the PTE (potential to emit) is less than 5 tons PM (particulate matter) per year and 2 tons NO_x per year.

History of Changes to PSEL

11. The previous permit for this source had set a PSEL of .5 tons per year for PM. This limit was calculated incorrectly and was set inconsistent with LRAPA rules and current guidance. Therefore, this permit removes the PSEL and sets a 0% opacity (visible emissions limit) on storage silos during material loading operations. This approach was taken since the greatest potential for significant emissions from this operation occurs during truck unloading operations.

Baseline Emission Rate (BER)

12. The BER has not been previously established. This source was operating in 1978, but has not modified its operations. Therefore, it may be assumed that the emissions estimates in this permit are reflective of 1978 emissions. In other words, it is assumed that this source is still operating at its baseline emission rate.