

# Puget Sound Clean Air Agency

Notice of  
Construction No. 9462

Registration No. 14046

Date 7/21/2006

## HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

PUGET SOUND  
Clean Air Agency

Modify whole-tire test schedule in Order of Approval No. 9237 due to a delay in whole-tire firing equipment installation

### APPLICANT

**Michael Depew**  
**Lafarge North America Inc**  
**5400 W Marginal Way SW**  
**Seattle, WA 98106**

### OWNER

**Lafarge North America Inc**  
**5400 W Marginal Way SW**  
**Seattle, WA 98106**

### INSTALLATION ADDRESS

**Lafarge North America Inc, 5400 W Marginal Way SW, Seattle, WA, 98106-1599**

### THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

### WHOLE TIRE LIMITATION

3. Lafarge North America (Lafarge) is approved to inject only whole tires (tire derived fuel - TDF) at mid-kiln. Lafarge shall notify the Puget Sound Clean Air Agency in writing providing the final completion date of the mid-kiln whole tire injection system. This notification shall be submitted to the Agency within 10 days of the date of final completion.
4. Lafarge shall limit and record the total use of whole tires and chipped tires injected into the kiln to no more than 20% of the total fuel energy (Btu) supplied to the kiln on a hourly average, except as allowed by Conditions No. 8 and 9 of this Order. Whole tire injection may not proceed at any rate until the performance test report for that whole tire feed rate has been submitted with a demonstration of compliance with the limits of 40 CFR 63.1343(d). Lafarge shall submit these records on a monthly basis with the required CEMS reports.

### NOx & CO MONITORING

5. While the kiln is operating, Lafarge shall continuously operate the NOx and CO emission monitors, Lafarge shall record the NOx and CO emission data and report the data for the duration of this Order. As part of the testing process in Conditions 8 and 9, Lafarge shall investigate short term relationships between NOx and CO emissions and the types, quantities and rates of raw materials, fuels and kiln operations during periods before and after injection of chipped or whole tires. These investigations shall be submitted along with the test reports for Conditions 8 and 9. Lafarge shall record the fuels used and their usage rate for the duration of this Order and submit this data on a monthly basis with the required CEMS reports.

### SOURCE TEST SCHEDULE

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6. Lafarge shall submit source test notifications and test reports as required by Regulation I, Section 3.07 for each required test identified in Condition No. 8 of this Order.

7. Within 30 days of kiln startup after each annual kiln maintenance outage period, Lafarge shall evaluate the installation, calibration and drift of the existing NO<sub>x</sub>, CO and O<sub>2</sub> monitors following the procedures in 40 CFR 60, Appendix B (Specifications 2, 3 and 4) and Appendix F. Lafarge shall apply bias correction factors as needed for the existing NO<sub>x</sub>, CO and O<sub>2</sub> monitors for use during this temporary approval. Lafarge shall conduct daily calibration drift checks on the NO<sub>x</sub>, CO and O<sub>2</sub> monitors. Lafarge shall submit the results from these QA/QC procedures to the Agency within 30 days of test completion and continue to report on a monthly basis in accordance with Article 12 of Regulation I. For the purposes of this testing, these NO<sub>x</sub>, CO and O<sub>2</sub> monitors do not need comply with the CEMS installation and measurement Specifications in Section 8.1 and the Relative Accuracy Performance Specification in Section 13.2 of Performance Specification 2 and the Relative Accuracy requirement in Section 13.2 of Performance Specification 4.

8. Lafarge shall perform source tests beginning during the second quarter of 2006. During these source tests, Lafarge may request Agency approval for different tire injection rates other than listed below if necessary to assure kiln stability. Lafarge shall make any such request at least 7 days prior to a scheduled source test. Lafarge shall perform source tests in accordance with Conditions No. 9 and 10 of this Order while operating the kiln near capacity and consistently adding tires as nearly as practical at the levels specified. Lafarge shall notify the Agency at least 60 days prior to any scheduled test dates. Lafarge shall conduct the following tests no later than the timeframe specified, with the whole tire testing scheduled to commence with the installation of the mid-kiln whole tire injection system:

- a) Baseline test - Second Quarter 2006 - no waste oil, no chipped tires, and no whole tires;
- b) Test No. 1 shall be performed within 91 days after completion of the whole tire injection system specified in Condition No. 3 - no waste oil, no chipped tires, and whole tires at 20% of the total heat input supplied to the kiln on a hourly average;
- c) Test No. 2 shall be performed within 182 days after completion of the whole tire injection system specified in Condition No. 3 - no waste oil, chipped tires at 10% and whole tires at 10% of the total heat input supplied to the kiln on a hourly average;
- d) Test No. 3 shall be performed within 273 days after completion of the whole tire injection system specified in Condition No. 3 - no waste oil, chipped tires at 20% and whole tires at 20% of the total heat input supplied to the kiln on a hourly average;
- e) Test No. 4 shall be performed within 365 days after completion of the whole tire injection system specified in Condition No. 3 - no waste oil, no chipped tires and whole tires at 40% of the total heat input supplied to the kiln on a hourly average.

### OPERATIONS AND TESTING

9. Lafarge shall test the emissions in accordance with the following methods:

- a) Opacity (CEMS);
- b) SO<sub>2</sub> (CEMS);
- c) NO<sub>x</sub> (EPA Method 7E);

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- d) CO (EPA Method 10);
- e) O<sub>2</sub> (EPA Method 3A);
- f) Dioxin/Furan (EPA Method 23);
- g) Metals (EPA Method 29) - testing required under Conditions No. 8(a), 8(b), and 8(e) only;
- h) Formaldehyde (Method 0011/SW-8315) - testing required under Conditions No. 8(a), 8(b), and 8(e) only;
- i) Volatile Organic Compounds (EPA Method TO-14A);
- j) Polycyclic Aromatic Hydrocarbons (EPA Method 0010).

10. Lafarge shall monitor and record the following data:

- a). ESP inlet temperature following 40 CFR 63.1349(b)(3);
- b) Type and quantity of clinker manufactured for cement;
- c) Type and quantity of raw materials added to kiln;
- d) Type, quantity and fuel Btu added to the kiln;
- e) Burnability Index;
- f) Amount of CKD produced and re-injected;
- g) Variability of raw mix; and
- h) Amount of tires (chipped or whole) added to kiln.

11. Lafarge shall submit a report to the Agency within 90 days after performing Test No. 4 in Condition No. 8(e) which contains the following:

- a) Analysis of testing results quantifying emission changes between burning no tires, burning chipped tires and burning whole tires; and
- b) Estimated or projected changes in emissions between burning no tires, burning chipped tires and burning whole tires in pounds per hour and estimated on a tons per year basis for measured pollutants from the source tests and monitored data collected to that date.

12. Lafarge shall submit a Notice of Construction application to obtain final approval for future tire fuel operations within 45 days after submittal of the report required in Condition No. 11.

13. Lafarge shall submit an Air Operating Permit modification application for future tire fuel operations within 45 days after submittal of the report required in Condition No. 11.

14. If the applications identified in Conditions Nos. 12 and 13 are both complete within 90 days after submittal of the report required in Condition No. 11, this Temporary Order of Approval will remain in effect until final action is taken on

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report required in Condition No. 11, this Temporary Order of Approval will remain in effect until final action is taken on the applications identified in Conditions Nos. 12 and 13. If the applications identified in Conditions Nos. 12 and 13 are not complete within 90 days after submittal of the report required in Condition No. 11, this Temporary Order of Approval will expire on that day.

15. This Order of Approval No. 9462 modifies and replaces Order of Approval No. 9237 issued March 17, 2006.

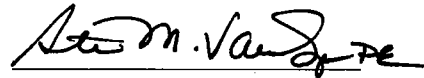
### APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.



Fred Austin  
Reviewing Engineer

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Steven Van Slyke  
Supervising Engineer