



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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July 28, 2010

Mr. Richard Sebastianelli  
Lafarge North America, Inc.  
5400 West Marginal Way Southwest  
Seattle, WA 98106-1517

Dear Mr. Sebastianelli :

**Regional Haze Best Available Retrofit Technology (BART) Determination**

Best Available Retrofit Technology (BART) is required to reduce the regional haze impacts of emissions of your facility. The enclosed Revised Order #7841 contains our BART determination for your facility including a schedule for compliance. This revision replaces Order No. 7841 dated July 7, 2010.

If you have questions or requests relating to this order, please contact Alan Newman at (360) 407-6810 or [alan.newman@ecy.wa.gov](mailto:alan.newman@ecy.wa.gov).

Sincerely,

Jeff Johnston, Ph.D.  
Manager, Science and Engineering Section  
Air Quality Program

jj/te

Enclosure

By certified mail

cc: Alan Newman, Ecology  
Steve Van Slyke, PSCAA



**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

IN THE MATTER OF AN ]  
ADMINISTRATIVE ORDER AGAINST: ]  
 ]  
Lafarge North America, Inc. ]  
\_\_\_\_\_ ]

REVISED ORDER NO. 7841

TO: Mr. Richard Sebastianelli  
Lafarge North America, Inc.  
5400 West Marginal Way Southwest  
Seattle, WA 98106-1517

This is an Administrative Order requiring your company to comply with WAC 173-400-151 by taking the actions that are described below. Chapter 70.94 RCW authorizes the Washington State Department of Ecology's Air Quality Program (Ecology) to issue Administrative Orders to require compliance with the requirements of Chapter 70.94 RCW and regulations issued to implement it.

Ecology has determined that portions of your facility are subject to the provisions of the federal and state visibility protection program (WAC 173-400-151 and 40 CFR Part 51, Subpart P). The rules require that the State determine what technologies and level of emission control constitutes Best Available Retrofit Technology (BART) for the eligible emission units at your facility. The rules also require the installation and use of those emission controls on the BART-eligible emission units. The emission controls are to be installed as expeditiously as possible, but in no event can the State allow them to start operation later than five years after the State's Regional Haze SIP amendment is approved by the United States Environmental Protection Agency (EPA).

**FINDINGS**

- A. The Lafarge North America, Inc., Seattle Plant (Lafarge) is a wet process cement plant subject to BART.
- B. BART emission limitations for the plant are based on:
  - a. Use of existing baghouses and electrostatic precipitators for the control of particulate matter.
  - b. Use of SNCR or mid-kiln firing of whole tires for control of nitrogen oxides.
  - c. Use of the existing wet process rotary kiln process plus dry sorbent injection for control of sulfur dioxide (SO<sub>2</sub>) emissions.
- C. The Lafarge North America Seattle Cement plant is included in federal Consent Decree resolving Case 3:10-cv-00044-JPG-CJP, Filed 03/18/10 in United States District Court for

the Southern District of Illinois. This Consent Decree establishes compliance schedules and emission limitations for a number of cement kilns owned and operated by Lafarge North America. In addition to emission limitations and dates to achieve compliance with those limitations, the Consent Decree contains provisions related to temporary cessation of operation of a kiln. These provisions require that a kiln comply with the emission limits applicable to it when the kiln is restarted (provided the restart is after the date established to comply with the new emission limitations) or if the kiln is not operated for more than two years, a restart of the kiln is to be treated as a new emissions source.

- D. On July 27, 2010, Lafarge North America requested the BART Compliance Order be revised primarily to reflect specific criteria included in the federal Consent Decree, eliminate some initial stack testing performance requirements, and to eliminate compliance schedule dates that occurred prior to issuance of the Order. No emission limitation is being changed as part of this request, nor is the performance test using EPA reference methods being deleted. The request also included several administrative changes such as the name of the plant manager, which have been made.

Additional information and analysis is available in the BART Determination Support Document for Lafarge North America, Seattle Plant, prepared by the Washington State Department of Ecology, October 2008, and the Proposed Best Available Retrofit Technology (BART) for the Lafarge Plant in Seattle, Washington, prepared by RTP Environmental Associates on behalf of Lafarge North America, December 2007.

**YOU ARE ORDERED:** To install and operate emission control equipment in accordance with the following conditions:

## **BART EMISSION LIMITATIONS**

### 1. Particulate Matter Emissions

1.1. Meet the emission limitations for particulate matter found in Puget Sound Clean Air Agency's (PSCAA) Regulation 1, Section 9.09 (in effect on June 30, 2008), and Order of Approval Number 5627.

1.2. Compliance will be determined as specified in Air Operating Permit Number 14046.

### 2. Nitrogen Dioxide Emissions

2.1. Starting no later than the date in Condition 5, emissions of nitrogen dioxide from the wet process rotary cement kiln are limited to a maximum of:

2.1.1. 22,960 lb/calendar day, except during periods of control system malfunction.

2.1.2. During documented periods of emission control system malfunction (as defined in 40 CFR 60.2), Lafarge shall utilize good operating practices to minimize nitrogen dioxide emissions.

2.2. Compliance will be determined by use of a continuous emission monitoring system.

2.3. An initial performance test utilizing EPA Reference Method 7E will be performed within 180 days of the start of operation of the NO<sub>x</sub> control system.

### 3. Sulfur Dioxide Emissions

3.1. Starting no later than the date in Condition 5, emissions of sulfur dioxide from the wet process rotary cement kiln are limited to a maximum of:

3.1.1. 8,620 lb/calendar day, except during periods of emission control system malfunction.

3.1.2. 1000 ppmdv, 1-hour average.

3.1.3. During documented periods of emission control system malfunction (as defined in 40 CFR 60.2), Lafarge shall utilize good operating practices to minimize sulfur dioxide emissions.

3.2. Compliance will be determined by use of a continuous emission monitoring system.

3.3. An initial performance test utilizing EPA Reference Method 6C will be performed within 180 days of the start of operation of the SO<sub>2</sub> control system.

## **SCHEDULE FOR COMPLIANCE**

### 4. Particulate Matter Emissions

4.1. Compliance with the emission limitations is required upon the effective date of this Order.

### 5. Schedule for Compliance with Sulfur Dioxide and Nitrogen Dioxide Emissions

5.1. Compliance with the sulfur dioxide and nitrogen dioxide emission limitations is required. Compliance will be assured by meeting the following milestones:

5.1.1. Installation and operation of SO<sub>2</sub> and NO<sub>x</sub> controls no later than February 1, 2011, unless the kiln is in temporary cessation on that date per Section VII of the federal Consent Decree.

- 5.1.2. If the kiln is in temporary cessation on February 1, 2011, then installation and operation of SO<sub>2</sub> and NO<sub>x</sub> controls no later than the date that the kiln is restarted after February 1, 2011.
- 5.2. Operate in compliance with the SO<sub>2</sub> emission limitations no later than April 30, 2011, or 90 days after the kiln is restarted if the kiln is in temporary cessation on February 1, 2011.
- 5.3. Operate in compliance with the NO<sub>x</sub> emission limitation no later than the date Lafarge completes optimization of the NO<sub>x</sub> control system per the criteria in paragraph 10 of the Appendix to the Consent Decree.

## **MONITORING AND RECORDKEEPING REQUIREMENTS**

### **6. Particulate Matter**

- 6.1. Monitoring and recordkeeping requirements are contained in Air Operating Permit Number 14046, issued to Lafarge North America, Seattle Plant on May 15, 2004, and modified July 28, 2004, by the PSCAA.

### **7. Sulfur Dioxide**

- 7.1. Sulfur dioxide emissions are to be quantified by means of a continuous emission monitoring system, consisting of a continuous sulfur dioxide monitor, and a continuous flow rate monitor.
- 7.2. The sulfur dioxide monitor must meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2.
- 7.3. The flow rate monitor must meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6, except for location of the flow rate monitor. The flow rate monitor may be collocated with the nitrogen dioxide or sulfur dioxide monitor's probe, provided that location is demonstrated to meet the other requirements in Performance Specification 6 and the quality assurance requirements referenced in Condition 7.4.
- 7.4. As a minimum, the continuous emission monitors must meet the annual quality assurance requirement of 40 CFR Part 60, Appendix F.
- 7.5. Each calendar day's sulfur dioxide emissions will be calculated and recorded daily.

### **8. Nitrogen Dioxide Emissions**

- 8.1. Nitrogen dioxide emissions are to be quantified by means of a continuous emission monitoring system, consisting of a continuous nitrogen oxides monitor, and a continuous flow rate monitor.
- 8.2. The nitrogen oxides monitor must meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2.
- 8.3. The flow rate monitor must meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6, except for location of the flow rate monitor. The flow rate monitor may be collocated with the nitrogen dioxide or the sulfur dioxide monitor's probe, provided that location is demonstrated to meet the other requirements in Performance Specification 6 and the quality assurance requirements referenced in Condition 8.4.
- 8.4. As a minimum, the continuous emission monitors must meet the annual quality assurance requirement of 40 CFR Part 60, Appendix F.
- 8.5. Each calendar day's nitrogen oxides emissions will be calculated and recorded daily.

## **REPORTING REQUIREMENTS**

9. Initial performance testing of the NO<sub>x</sub> emission control system required by Condition 2.3 and the SO<sub>2</sub> control system required by Condition 3.3 shall be submitted to Ecology and to PSCAA within 30 days of completion.
10. Documentation of each action or activity listed in Condition 5, including notification of the start and end of temporary cessation of kiln operation, will be provided by Lafarge by certified mail to Ecology and to PSCAA within 30 days of completion.
11. Malfunction of the emission control system must, at a minimum, be documented in writing and submitted to PSCAA and Ecology with the emissions monitoring data per Condition 12. Additional recordkeeping and notifications related to excess emissions may also be required by Ecology rule or PSCAA regulation.
12. Continuous emission monitoring data shall be submitted to Ecology and to PSCAA in accordance with PSCAA's Regulation 1, Section 12.03 (effective June 30, 2008). The submittal shall be sent electronically in a format acceptable to PSCAA. Reporting to Ecology will end when Lafarge has demonstrated compliance with the BART emission limits in this order for a continuous 36-month period.
13. Lafarge may request this compliance Order be rescinded after all of the following occur:

- 13.1. The plant has continuously complied with the emissions limitations in Conditions 1, 2, and 3 for a period of three years after the date in Condition 5.2.
- 13.2. The emission limitations in this Order have been incorporated into an enforceable order or permit issued under the criteria of RCW 70.94.152 or 70.94.153 and PSCAA regulations implementing these provisions.
- 13.3. The emission limitations in the enforceable order or permit have been incorporated into the Air Operating Permit issued by PSCAA to Lafarge.

This revision replaces Order No. 7841 dated July 7, 2010.

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

You have a right to appeal this Order. To appeal you must:

- File your appeal with the Pollution Control Hearing Board within 30 days of the “date of receipt” of this document. Filing means actual receipt by the Board during regular office hours.
- Serve your appeal on the Department of Ecology within 30 days of the “date of receipt” of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). “Date of receipt” is defined at RCW 43.21B.001(2).

If you appeal, you must:

- Include a copy of this document with your Notice of Appeal.
- Serve and file your appeal in paper form; electronic copies are not accepted.

To file your appeal with the Pollution Control Hearing Board:

Mail appeal to:

The Pollution Control Hearings Board  
P.O. Box 40903  
Olympia, WA 98504-0903

Deliver your appeal in person to:

OR  
The Pollution Control Hearings Board  
4224–6th Avenue SE Rowe Six, Bldg 2  
Lacey, WA 98503

To serve your appeal on the Department of Ecology:

Mail appeal to:

Department of Ecology  
Appeals Coordinator  
P.O. Box 47608  
Olympia, WA 98504-7608

Deliver your appeal in person to:

Department of Ecology  
Appeals Coordinator  
300 Desmond Drive SE  
Lacey, WA 98503

OR

And send a copy of your appeal packet to:

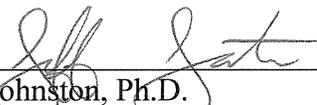
Alan Newman  
Department of Ecology  
Air Quality Program  
P.O. Box 47600  
Olympia, WA 98504-7600

For additional information, go to the Environmental Hearings Office website at <http://www.eho.wa.gov>.

To find laws and agency rules, go to the Washington State Legislature website at <http://www1.leg.wa.gov/CodeReviser>.

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Chapter 43.21B RCW.

DATED this 28 day of July, 2010 at Olympia, Washington.

  
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Jeff Johnston, Ph.D.  
Manager, Science and Engineering Section  
Department of Ecology  
Air Quality Program