



TECHNICAL SUPPORT DOCUMENT

**Air Discharge Permit ADP 10-2941
ADP Application CL-1910**

**Lafarge North America, Inc.
SWCAA ID 521**

Date: July 20, 2010

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Abbreviations

ADP	Air Discharge Permit
AP-42	<u>Compilation of Emission Factors, AP-42, Fifth Edition, Volume 1, Stationary Point and Area Sources – published by the US Environmental Protection Agency</u>
BACT	Best available control technology
CPM	Condensable particulate matter
CFR	Code of Federal Regulations
CO	Carbon monoxide
EPA	U.S. Environmental Protection Agency
gr/dscf	Grains per dry standard cubic foot (68 °F, 1 atmosphere)
HAP	Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act
LAER	Lowest achievable emission rate
MSDS	Material Safety Data Sheet
NO _x	Nitrogen oxides
NOV	Notice of Violation
PM	Particulate matter with an aerodynamic diameter less than 100 micrometers (includes both filterable particulate matter measured by EPA Method 5 and condensable particulate matter measured by EPA Method 202)
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (includes both filterable particulate matter measured by EPA Method 201 or 201A and condensable particulate matter measured by EPA Method 202)
PM _{2.5}	Particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers (includes both filterable particulate matter measured by EPA Method 201 or 201A and condensable particulate matter measured by EPA Method 202)
ppm	Parts per million
ppmv	Parts per million by volume
ppmvd	Parts per million by volume, dry
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCW	Revised Code of Washington
SQER	Small Quantity Emission Rate listed in WAC 173-460
SO ₂	Sulfur dioxide
SWCAA	Southwest Clean Air Agency
TAP	Toxic air pollutant pursuant to Chapter 173-460 WAC
T-BACT	Best Available Control Technology for toxic air pollutants
tpy	Tons per year
TWA	Time weighted average
VOC	Volatile organic compound
WAC	Washington Administrative Code

1. FACILITY IDENTIFICATION

Applicant Name: Lafarge North America, Inc.
Applicant Address: 1217 W 8th Street, Vancouver, WA 98660

Facility Name: Lafarge North America, Inc.
Facility Address: 1217 W 8th Street, Vancouver, WA 98660
SWCAA Identification: 521
Contact person: Les Bechtholdt, Terminal Manager

Primary Process: Cement Distribution Terminal
SIC/NAICS Code: 3241/327999
Facility Classification: BACT Natural Minor

2. FACILITY DESCRIPTION

Lafarge North America (Lafarge) operates a cement distribution terminal in Vancouver. Lafarge operates terminals primarily to receive and distribute Portland cement. The main product handled at this facility is cement received by rail. They also receive barges from Seattle and will be the main supply method in the future. Lafarge's terminals may transfer pozzolanic materials including, but not limited to, flyash and ground slag. The main pollutant of interest is particulate matter, generated by the receiving and distribution of cement products.

3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit application number CL-1910 (ADP application CL-1910) dated March 11, 2010. Lafarge submitted ADP application CL-1910 requesting approval for operation of an existing portable, cyclonic railcar unloading unit.

4. PROCESS DESCRIPTION

4.a Bulk Material Handling and Storage. Operations at the facility are focused on receiving, storing, and shipping bulk powdered materials, primarily Portland cement. The facility is capable of receiving cement via barge, truck, and railcar. The majority of the facility's throughput is received via barge. Incoming material is pneumatically conveyed from the receiving station to elevated storage silos. The facility is capable of shipping cement via truck, rail, and barge, but has traditionally used trucks. Outgoing material is generally transferred using augers, screw conveyors and/or gravity drops. Particulate matter emissions from material handling operations are controlled through equipment enclosure and the use of high efficiency filtration (dust collectors). Material caught in the dust collectors is returned to the storage silos. The facility has the capability to package cement in bags (the packer), but this device has not been used recently.

5. EQUIPMENT/ACTIVITY IDENTIFICATION

New Equipment

5.a Baghouse. Cyclonaire model 58-DC-36 passive baghouse with a Gardner Denver DuroFlow® positive displacement pump, model 7009, serial #5233040, with a rated flowrate of 1,365 acfm. This unit is equipped with 36 filter bags 58" long, for a total filtration area of 260 ft². The filtration media is manufactured of 16 oz/yd² polyester. The unit has a passive design with pulse jet cleaning. This unit controls emissions from material transferred from railcars to trucks. It is intended to be a temporary unit. The Cyclonaire discharges horizontally through a stack approximately 14 inches in diameter and 11.5 feet above ground level. The baghouse is used in combination with the diesel engine below.



5.b Engine. The following diesel engine specifications were provided by the applicant:

Engine Make: Iveco
Engine Model: F4GE0684C*D52
Engine Serial No.: 00277329
Engine Rating: 173 brake horsepower, 411 cubic inches
Manufacture Date: February 2006
Fuel Consumption: 4 gallons per hour at full standby load
Stack Details: Horizontal discharge, 2.5 in dia, 7 ft agl

Note: This equipment meets EPA's Tier 2 exhaust emission standards – EPA family 6VEXL06,7DTA.



Existing Equipment

- 5.c Baghouse #1. Wheelabrator model 36 size 56 cartridge collector with a rated flowrate of 9,500 acfm. This unit is equipped with 30 filter cartridges for a total filtration area of 2,700 ft². The filtration media is manufactured of 8 oz/yd² spun bonded polyester. This unit controls emissions from material transfer from the cement storage silos to truck unloading.
- 5.d Baghouse #2. Wheelabrator model 36 size 56 cartridge collector with a rated flowrate of 9,500 acfm. This unit is equipped with 30 filter cartridges for a total filtration area of 2,700 ft². The filtration media is manufactured of 8 oz/yd² spun bonded polyester. This unit controls emissions from material transfer from railcars to the cement storage silos.



- 5.e Baghouse #5. Northern Blower Co. “Norblo” baghouse with a rated airflow of 7,400 acfm. This unit is equipped with 234 bags for a total filtration area of 2,808 ft². The filter bags are manufactured of 9.1 oz/yd² Dacron felted polyester. This unit controls emissions from the packer operation, and serves as a backup to Baghouse #6.
- 5.f Baghouse #6. Northern Blower Co. “Norblo” baghouse with a rated airflow of 7,400 acfm. This unit is equipped with 234 bags for a total filtration area of 2,808 ft². The filter bags are manufactured of 9.1 oz/yd² Dacron felted polyester. This unit controls emissions from railcar unloading.



- 5.g Cartridge Collector. Cyclonaire cartridge collector with a rated airflow of 1,654 acfm. This unit is equipped with 25 filter cartridges for a total filter area of 551 ft². The filtration media is 16 oz/yd² spun bound polyester. This unit controls emissions from railcar loading.



- 5.h Housekeeping Vacuum system. US Hoffman Machine Corp vacuum system (s/n 36030) with a 30 hp drive operating at 3,530 rpm. Material caught from the system is collected by a US Hoffman Machine Corp. baghouse, Vacuum Sweeping System Secondary Separator, and an air sweep. The baghouse is equipped with 18 bags (each

~6' long) and has a rated flowrate of approximately 2,400 acfm. The vacuum system is used to clean up occasional material spills. It is kept in storage when not in active use.

Other Equipment:

- Six storage silos, 2,922.3 tons each.
- Storage silo, 1,233 tons.
- Storage silo, 1,450 tons.
- Air slide – provides an air cushion on the bottom of inclined duct work to transport material from the smaller silos 7 & 8 to the hoppers of larger silos 3 & 4. The air cushion is totally enclosed within the duct work and pneumatic air does not contact cement.
- Bagged cement storage area.
- Cement pump – Fuller-Kinyon Conveying System, type H10, serial number 8375, pushes cement from railcars into storage silos by pneumatic means. It has a 250 hp drive at 1,185 rpm.
- Two compressors, common drive - Fuller Company, model Rotary Air compressor/vacuum pump C-300, serial numbers 8572 and 8573, provides pneumatic air for transport of cement from the Fuller Kinyon pump to the storage silos. The maximum pressure is 37 psig, with a drive of 350 hp, at 584 rpm. Also includes a CYCOZ, model 24W01 air cleaner, serial number B59379.
- One compressor – Ingersol-Rand, model 253D5, serial number 30T 159590, provides pneumatic air for transport of cement from elevator to the Fuller Kinyon pump. It has a 5 hp drive at 1,740 rpm.
- One compressor – Sturtevant Centrifugal, type Series 30, provides pneumatic air to air slide from the railcar to the Fuller Kinyon pump. It has a 7.5 h.p. drive.
- One compressor – Sturtevant Centrifugal, type Series 30, provides pneumatic air for truck loading. It has a 10 hp drive.
- One compressor – Universal, model 59URAI, serial number 0206945938, provides pneumatic air to move cement from the railcar to the Fuller Kinyon pump.
- One compressor – Gardner Denver, model ECH-QJE, provides pneumatic air for the plant. It has a 50 hp drive.
- One compressor – Gardner Denver, model EJB-GB, provides pneumatic air for the plant. It has a 30 hp drive.
- One Blower – Duraflow, model GG-DOACA, serial number 5086165, blows cement from the silo to the truck.
- One Blower – Ingersoll-Rand, type 30, blows cement from the elevator to the Fuller Kinyon pump.
- Bagging machine - St. Regis Paper Co., 150 FC, machine number 10008, loads cement into sacks. It has a 30 hp drive at 1,175 rpm. Each sack weighs 94 lbs. (not currently used).
- Marine vessel unloading - Vessels are loaded infrequently with ship mounted conveying powder through four, 12" diameter ducts to the plant's main cement silos. All displaced silo air is filtered by baghouses on the barges. Two ducts are used at a time. Cement is conveyed at a rate of 300 metric tons/hour/line. Each duct utilizes an estimated 3,000 acfm for conveying.

5.i Equipment/Activity Summary.

ID No.	Generating Equipment/Activity	# of Units	Control Equipment	# of Units
1	Truck Loading	N/A	Baghouse #1 (Wheelabrator – 9,500 acfm)	1
2	Transfer from Railcar to Silo	N/A	Baghouse #2 (Wheelabrator – 9,500 acfm)	1
3	Railcar Unloading / Packer Exhaust	N/A	Baghouse #5 (Northern Blower Co – 7,400 acfm)	1
4	Railcar Unloading	N/A	Baghouse #6 (Northern Blower Co – 7,400 acfm)	1
5	Railcar Loading	N/A	Cartridge Collector (Cyclonaire – 1,654 acfm)	1

6	Housekeeping Vacuum System	N/A	Baghouse (US Hoffman – 2,400 acfm)	1
7	Transfer from Railcar to Truck	N/A	Baghouse - portable (Cyclonaire – passive)	1
8	Iveco Diesel Engine – Railcar to Truck	1	EPA Tier 2, Ultra-Low sulfur diesel (≤ 15 ppm)	N/A

6. EMISSIONS DETERMINATION

Emissions to the ambient atmosphere from the material handling equipment and the diesel engine, as proposed in ADP application CL-1910, consist of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter (PM), and sulfur dioxide (SO₂). All PM produced at the facility is assumed to be particulate matter smaller than 10 microns (PM₁₀).

6.a Baghouse. Emissions from the passive truck loading baghouse consist of particulate matter. PM emissions from the baghouse are calculated from the unit's discharge rate, a maximum concentration of 0.005 gr/dscf, and 8,760 hr/yr of operation. All PM emissions are assumed to be PM_{2.5}.

<u>Emission Unit</u>	<u>Pollutant</u>	<u>Unit Flowrate</u>	<u>Potential Emissions</u>
Baghouse	PM/PM ₁₀ /PM _{2.5}	1,365 cfm	0.26 tpy

6.b Diesel Engine. The diesel engine will be fired on road-grade #2 diesel containing 0.0015% or less sulfur by weight. Maximum potential emissions from the engine was calculated assuming that the engine will be operated a maximum of 200 hours per year at full rated load with a rating of 173 bhp. A mass balance was used to calculate sulfur dioxide emissions assuming that the fuel sulfur content is 0.0015% by weight.

Diesel Engine - Iveco

Hours of Operation	200 hours
Power Output	173 hp
Diesel Density	7.206 lb/gal
Diesel Heat Content =	140,000 Btu/gal
Fuel Sulfur Content =	0.0015 % by weight
Fuel Consumption Rate	4 gal/hr

<u>Pollutant</u>	<u>Emission</u>				<u>Emission Factor source</u>
	<u>Factor</u> lb/hp-hr	<u>Emissions</u> lb/hr	<u>Emissions</u> lb/yr	<u>Emissions</u> tpy	
VOC	0.00247	0.43	85.46	0.04	AP-42 Table 3.3-1 (10/96)
NO _x	0.0108	1.87	373.68	0.19	EPA Tier 2 Limit
CO	0.00816	1.41	282.34	0.14	EPA Tier 2 Limit
PM/PM ₁₀ /PM _{2.5}	0.00049	0.08	16.95	0.01	EPA Tier 2 Limit
SO _x as SO ₂		0.0009	0.17	0.0001	Mass Balance

Emissions shall be calculated using the emission factors identified above unless new emission factors are provided by the manufacturer or developed through source testing.

6.c Potential to Emit

<u>Pollutant</u>	<u>Emissions</u>
NO _x	0.19 tpy
CO	0.14 tpy
PM	0.27 tpy
PM ₁₀	0.27 tpy
PM _{2.5}	0.27 tpy
VOC	0.04 tpy
SO ₂	0.0001 tpy
HAP	0.00 tpy
TAP	0.00 tpy

7. REGULATIONS AND EMISSION STANDARDS

Regulations have been established for the control of emissions of air pollutants to the ambient air. Regulations applicable to the proposed facility that have been used to evaluate the acceptability of the proposed facility and establish emission limits and control requirements include, but are not limited to, the following regulations, codes, or requirements. These items establish maximum emissions limits that could be allowed and are not to be exceeded for new or existing facilities. More stringent limits are established in this Permit consistent with implementation of Best Available Control Technology (BACT):

- 7.a Revised Code of Washington (RCW) 70.94.141 empowers any activated air pollution control authority to prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution within its jurisdiction. An air pollution control authority may issue such orders as may be necessary to effectuate the purposes of the Washington Clean Air Act [RCW 70.94] and enforce the same by all appropriate administrative and judicial proceedings subject to the rights of appeal as provided in Chapter 62, Laws of 1970 ex. sess.
- 7.b RCW 70.94.152 provides for the inclusion of conditions of operation as are reasonably necessary to assure the maintenance of compliance with the applicable ordinances, resolutions, rules and regulations when issuing an Air Discharge Permit for installation and establishment of an air contaminant source.
- 7.c 40 Code of Federal Regulations (CFR) 60.7 "Notification and Recordkeeping" requires that notification shall be submitted to SWCAA, the delegated authority, for date construction commenced, anticipated initial start up, and initial start up.
- 7.d 40 CFR 60.8 "Performance Tests" requires that emission tests be conducted according to test methods approved in advance by the permitting authority and a copy of the results be submitted to the permitting authority.
- 7.e 40 CFR 60.4200 et seq. (Subpart III) "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" requires that new diesel engines meet specific emission standards at the point of manufacture and during operation. In addition, maximum fuel sulfur contents are specified and minimum maintenance standards are required. Subpart III applies to each compression ignition (CI) reciprocating internal combustion engine (RICE) that commences construction after July 11, 2005 and is manufactured after April 1, 2006, or that is modified or reconstructed after July 11, 2005.

The Iveco engine is a CI reciprocating internal combustion engine and was manufactured February 2006; therefore, this regulation is not applicable.

- 7.f 40 CFR 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines" establishes national emission limitations and operating limitations

for HAPs emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. Requirements vary depending on the age, configuration, and rating of each unit. Older units generally have to demonstrate compliance with emission standards in the regulation, while newer units generally comply by meeting applicable performance standards in NSPS subparts IIII and JJJJ. SWCAA does not have delegation for this regulation, and has chosen not to independently implement the associated requirements so requirements from this regulation have not been included in the Air Discharge Permit.

The Iveco is an existing stationary affected source with specific requirements under the version of this regulation in effect during initial permitting.

- 7.g 40 CFR 63.9 "Notification Requirements" requires that an initial notification, a notification of performance testing, and a notification of compliance status be submitted to SWCAA, the delegated authority. The engine is subject to 40 CFR 63 Subpart ZZZZ. An initial notification of any engine greater than 100 hp is required.
- Since SWCAA has not requested delegation of 40 CFR 63 Subpart ZZZZ, the initial notification must be sent to EPA no later than July 1, 2010.
- 7.h Washington Administrative Code (WAC) 173-460 "Controls for New Sources of Toxic Air Pollutants" requires Best Available Control Technology for toxic air pollutants (T-BACT), identification and quantification of emissions of toxic air pollutants and demonstration of protection of human health and safety. SWCAA implements the version of this regulation that became effective on 8/21/98.
- 7.i WAC 173-470 "Ambient Air Quality Standards for Particulate Matter" establishes ambient air quality standards for total suspended particulate matter and for particulate matter smaller than 10 microns (PM₁₀), which may not be exceeded more than one day per year.
- 7.j WAC 173-474 "Ambient Air Quality Standards for Sulfur Oxides" establishes ambient air quality standards for sulfur oxides in the ambient air, measured as sulfur dioxide, which shall not exceed:
- (1) Four-tenths part per million (0.4 ppm) by volume average for a one-hour period more than once per one-year period;
 - (2) Twenty-five one-hundredths part per million (0.25 ppm) by volume average for a one-hour period more than twice in a consecutive seven-day period;
 - (3) One-tenth part per million (0.1 ppm) by volume average for a one-day period more than once per one-year period; and
 - (4) Two one-hundredths part per million (0.02 ppm) by volume average for a one-year period.
- 7.k WAC 173-475 "Ambient Air Quality Standards for Carbon Monoxide, Ozone, and Nitrogen Dioxide" establishes ambient air quality standards for carbon monoxide, ozone, and nitrogen dioxide in the ambient air, which shall not be exceeded.
- 7.l SWCAA 400-040 "General Standards for Maximum Emissions" requires all new and existing sources and emission units to meet certain performance standards with respect to Reasonably Available Control Technology (RACT), visible emissions, fallout, fugitive emissions, odors, emissions detrimental to persons or property, sulfur dioxide, concealment and masking, and fugitive dust.
- 7.m SWCAA 400-040(1) "Visible Emissions" requires that no emission of an air contaminant from any emissions unit shall exceed twenty percent opacity for more than three minutes in any one hour at the emission point, or within a reasonable distance of the emission point.
- 7.n SWCAA 400-040(2) "Fallout" requires that no emission of particulate matter from any source shall be deposited beyond the property under direct control of the owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

- 7.o SWCAA 400-040(3) "Fugitive Emissions" requires that reasonable precautions be taken to prevent the fugitive release of air contaminants to the atmosphere.
- 7.p SWCAA 400-040(4) "Odors" requires that any person who shall cause or allow the generation of any odor from any source, which may unreasonably interfere with any other property owner's use and enjoyment of their property use recognized good practices and procedures to reduce these odors to a reasonable minimum.
- 7.q SWCAA 400-040(6) "Sulfur Dioxide" requires that no person shall emit a gas containing in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected to 7% O₂ or 12% CO₂ as required by the applicable emission standard for combustion sources.
- 7.r SWCAA 400-040(8) "Fugitive Dust Sources" requires that reasonable precautions be taken to prevent fugitive dust from becoming airborne, and minimize emissions.
- 7.s SWCAA 400-050 "Emission Standards for Combustion and Incineration Units" requires that all provisions of SWCAA 400-040 be met and that no person shall cause or permit the emission of particulate matter from any combustion or incineration unit in excess of 0.23 grams per dry cubic meter (0.1 grains per dry standard cubic foot) of exhaust gas at standard conditions.
- 7.t SWCAA 400-060 "Emission Standards for General Process Units" requires that all new and existing sources not emit particulate matter in excess of 0.1 grains per dry standard cubic foot of exhaust gas.
- 7.u SWCAA 400-110 "New Source Review" requires that an Air Discharge Permit Application be filed with SWCAA, and an Air Discharge Permit be issued by SWCAA, prior to establishment of the new source, emission unit, or modification.
- 7.v SWCAA 400-111 "Requirements for Sources in a Maintenance Plan Area" requires that no approval to construct or alter an air contaminant source shall be granted unless it is evidenced that:
- (1) The equipment or technology is designed and will be installed to operate without causing a violation of the applicable emission standards;
 - (2) Emissions will be minimized to the extent that the new source will not exceed emission levels or other requirements provided in the maintenance plan;
 - (3) Best Available Control Technology will be employed for all air contaminants to be emitted by the proposed equipment;
 - (4) The proposed equipment will not cause any ambient air quality standard to be exceeded; and
 - (5) If the proposed equipment or facility will emit any toxic air pollutant regulated under WAC 173-460, the proposed equipment and control measures will meet all the requirements of that Chapter.
- 7.w 40 CFR Part 63.1340 (Subpart LLL) – "National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry" establishes regulations applicable to Portland cement manufacturing facilities. However, the Lafarge facility is a terminal operation, not a manufacturing facility. As such, this standard does not apply.

8. RACT/BACT/BART/LAER/PSD/CAM DETERMINATIONS

The proposed equipment and control systems incorporate Best Available Control Technology (BACT) for the types and amounts of air contaminants emitted by the processes as described below:

- 8.a BACT Determination – Engine. The use of modern diesel-fired internal combustion engine designs, low-sulfur diesel fuel ($\leq 0.0015\%$ sulfur by weight), limitation of visible emissions to 5% opacity or less, and limitation

engine hours of operation (200 hr/yr) has been determined to meet the requirements of BACT for the types and quantities of air contaminants emitted from the diesel engine.

- 8.b BACT Determination – Baghouse. The proposed use of process enclosure and high efficiency filtration has been determined to meet the requirements of BACT for particulate matter emissions from truck loading operations at this facility.
- 8.c Prevention of Significant Deterioration (PSD) Applicability Determination. This permitting action will not result in a potential increase in emissions equal to or greater than the PSD thresholds. Therefore, PSD review is not applicable to this action.
- 8.d Compliance Assurance Monitoring (CAM) Applicability Determination. CAM is not applicable to any emission unit at this facility because it is not a major source and is not required to obtain a Part 70 permit.

9. AMBIENT IMPACT ANALYSIS

- 9.a Installation of the new baghouse and engine proposed in ADP application CL-1910 will not cause the ambient air quality requirements of Title 40 Code of Federal Regulations (CFR) Part 50 "National Primary and Secondary Ambient Air Quality Standards" to be violated.
- 9.b Installation of the new baghouse and engine proposed in ADP application CL-1910 will not cause the requirements of WAC 173-460 "Controls for New Sources of Toxic Air Pollutants," WAC 173-470 "Ambient Air Quality Standards for Particulate Matter," WAC 173-474 "Ambient Air Quality Standards for Sulfur Oxides," and WAC 173-475 "Ambient Air Quality Standards for Carbon Monoxide, Ozone, and Nitrogen Dioxide" to be violated.
- 9.c The new baghouse and engine proposed in ADP application CL-1910 can be operated without causing a violation of emission standards for sources as established under SWCAA General Regulations Sections 400-040 "General Standards for Maximum Emissions," 400-050 "Emission Standards for Combustion and Incineration Units," and 400-060 "Emission Standards for General Process Units."

10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue ADP 10-2941 in response to ADP application CL-1910. ADP 10-2941 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards as discussed below.

- 10.a General Basis. Approval conditions for equipment affected by this permitting action incorporate the operating schemes proposed by the applicant in the ADP application. Emission limits for approved equipment are based on potential emissions as calculated in Section 6 of this Technical Support Document.
- 10.b Monitoring and Recordkeeping Requirements. ADP 10-2941 establishes monitoring and recordkeeping requirements sufficient to document compliance with applicable emission limits, ensure proper operation of approved equipment and provide for compliance with generally applicable requirements. Specific recordkeeping requirements are established for hours of equipment operation, bag replacements, baghouse differential pressure, and control equipment maintenance events.
- 10.c Reporting Requirements. ADP 10-2941 establishes general reporting requirements for annual air emissions, upset conditions and excess emissions. Specific reporting requirements are established for hours of equipment operation. Reports are to be submitted on an annual basis.

- 10.d Permit Requirements – Bulk Material Handling Operations. Visible emissions from material handling operations are limited to 0% opacity to reflect total process enclosure and proper baghouse operation. Emission limits for the baghouse coincide with potential emissions as calculated from the maximum allowable emission concentration and continuous operation.
- 10.e Permit Requirements – Diesel Engine. This permitting action provides approval for limited operation of the diesel engine. To minimize emissions, SWCAA has required the engine to be EPA TIER certified and limited maximum fuel sulfur content to ≤ 15 ppmw (ultra low sulfur diesel). Consistent with the operational parameters presented in ADP application CL-1910, operation of the engine is limited to a maximum of 200 hours. Compliance with this limit will be demonstrated via operational records maintained by facility personnel. Visible emissions from the engine during normal operation are limited to a maximum of 5% opacity.

11. START UP AND SHUTDOWN/ALTERNATIVE OPERATING SCENARIOS/POLLUTION PREVENTION

- 11.a Start up and Shutdown Provisions. Pursuant to SWCAA 400-081 "Start up and Shutdown", technology based emission standards and control technology determinations shall take into consideration the physical and operational ability of a source to comply with the applicable standards during start up or shutdown. Where it is determined that a source is not capable of achieving continuous compliance with an emission standard during start up or shutdown, SWCAA shall include appropriate emission limitations, operating parameters, or other criteria to regulate performance of the source during start up or shutdown.

Exhaust from the new engine may exhibit greater than 5% opacity upon start up. Accordingly, the opacity limit is not applicable during the start up period defined in the permit.

- 11.b Alternate Operating Scenarios. SWCAA conducted a review of alternate operating scenarios applicable to equipment affected by this permitting action. The permittee did not propose or identify any applicable alternate operating scenarios. Therefore, none were included in the approval conditions.
- 11.c Pollution Prevention Measures. SWCAA conducted a review of possible pollution prevention measures for the facility. No pollution prevention measures were identified by either the permittee or SWCAA separate or in addition to those measures required under BACT considerations. Therefore, none were included in the approval conditions.

12. EMISSION MONITORING AND TESTING

Due to the nature and small quantity of air pollutant emissions from the baghouse and engine proposed in ADP application CL-1910, no formal emission monitoring or testing requirements have been established as part of this permitting action.

13. FACILITY HISTORY

- 13.a Previous Permitting Actions. SWCAA has previously issued the following Permits for Lafarge's facility in Vancouver:

<u>Date</u>	<u>Application Number</u>	<u>Permit Number</u>	<u>Purpose</u>
1/31/06	CL-1627	06-2658	Approval for the replacement of four existing baghouses with two new baghouses located on the silo roofs.
5/3/06	CL-1737	06-2673	Approval for the installation of a new cartridge collector as part of a

renovation project for railcar load out equipment. Supersedes 06-2658 in its entirety.

- 13.b Compliance History. A review of source records on file at SWCAA did not identify any previous or outstanding compliance issues for Lafarge's facility in Vancouver.

14. PUBLIC INVOLMENT OPPORTUNITY

- 14.a Public Notice for ADP Application CL-1910. Public notice for ADP application CL-1910 was published on the SWCAA internet website for a minimum of (15) days beginning on March 18, 2010.
- 14.b Public/Applicant Comment for ADP Application CL-1910. SWCAA did not receive specific comments, a comment period request or any other inquiry from the public regarding this ADP application. Therefore no public comment period was provided for this permitting action.
- 14.c State Environmental Policy Act. After review of the SEPA checklist submitted in conjunction with ADP application CL-1910, SWCAA has decided to issue a Determination of Non Significance (DNS) for this permitting action.