



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 4-0124-00001/00112

Renewal Number: 1

11/03/2009

Facility Identification Data

Name: LAFARGE BUILDING MATERIALS INC

Address: US RTE 9W - E SIDE

RAVENA, NY 12143-0003

Owner/Firm

Name: LAFARGE NORTH AMERICA INC

Address: 12950 WORLDGATE DR STE 500

HERNDON, VA 20170, USA

Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:

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PO BOX 3

RAVENA, NY 12143-0003

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Permit Description

Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project

Application for renewal of Air Title V Facility.

Attainment Status

LAFARGE BUILDING MATERIALS INC is located in the town of COEYMANS in the county of

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The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
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Particulate Matter (PM)	ATTAINMENT
Particulate Matter< 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	MARGINAL NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT
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* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor.

Facility Description:

THIS FACILITY MANUFACTURERS PORTLAND CEMENT USING TWO WET PROCESS KILNS EQUIPPED WITH ESPS FOR PARTICULATE EMISSIONS CONTROL. CEMENT IS SOLD IN BULK AND PACKAGED FORMS AND SHIPPED FROM THE FACILITY BY TRUCK, RAIL OR BARGE. OPERATIONS INCLUDE A LIMESTONE QUARRY (SIC 1422) AND A WHARF (SIC 4491).

Permit Structure and Description of Operations

The Title V permit for LAFARGE BUILDING MATERIALS INC is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process. A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:
combustion - devices which burn fuel to generate heat, steam or power
incinerator - devices which burn waste material for disposal
control - emission control devices
process - any device or contrivance which may emit air contaminants that is not included in the above categories.

LAFARGE BUILDING MATERIALS INC is defined by the following emission unit(s):



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Emission unit 020000 - EMISSION UNIT 020000 CONTAINS EMISSION SOURCES INVOLVED IN THE HANDLING OF RAW MATERIALS AND SOLID FUELS AT THE FACILITY. THIS INCLUDES THE SECONDARY CRUSHER LOCATED IN THE SECONDARY CRUSHER BUILDING, CONVEYOR #7, WHICH DISCHARGES IN THE MILL BUILDING, EMISSION 031000 CONSISTS OF THE RAW MILL 1 SYSTEM WHICH INCLUDES A BUCKET ELEVATOR, A MILL FEED BELT, A WOBBLER FEEDER AND TERTIARY CRUSHER. THE ENTIRE SYSTEM IS LOCATED IN THE MILL BUILDING. AND THE FLY ASH SYSTEM LOCATED IN THE MILL BUILDING AND FLY ASH SILO.

Emission unit 020000 is associated with the following emission points (EP):

34301, 46012, 46013, 46014, 46015, 46017

Process: FAX is located at ROOF, Building FLYASHSILO - TRANSFER OF FLY ASH TO FLY ASH STORAGE SILO FROM TRUCKS AND FROM SILO TO FLY ASH ALLEVIATOR.

Process: LCR is located at GROUND, Building 2NDCRUSHER - SECONDARY CRUSHING OF CALCIUM SOURCES (E.G., LIMESTONE) USED IN CEMENT MANUFACTURE.

Process: LMS is located at ROOF, Building MILLBLDING - STORAGE AND TRANSFER OF LIMESTONE FROM THE SILOS TO THE MILLING MACHINES.

Process: MAS is located at Building MASONSILO - TRANSFER OF MATERIAL INTO AND OUT OF THE MASONARY FRINGE SILO. THIS PROCESS IS VENTED BY A DUST COLLECTOR LOCATED ON TOP OF THE MASONARY FRINGE SILO.

Process: RX1 is located at GROUND, Building 2NDCRUSHER - TRANSFER OF RAW MATERIALS THROUGH THE SECONDARY CRUSHER AND ONTO CONVEYOR #7. CALCIUM SOURCES (LIMESTONE), SOLID FUELS, AND IRON SOURCES ARE TRANSFERRED THROUGH THE SECONDARY CRUSHER AND ONLY CONVEYOR #7.

Process: RX2 is located at 6, Building MILLBLDING - TRANSFER OF RAW MATERIALS (CALCIUM SOURCES, SOLID FUEL, AND IRON SOURCES) FROM CONVEYOR 7 DISCHARGE CHUTE TO THE SHUTTLE BELT LOAD CHUTE.

Emission unit 031000 - EMISSION 031000 CONSISTS OF THE RAW MILL 1 SYSTEM WHICH INCLUDES AN ADDITIVE BELT/COLLECTOR BELT AND MILL FEED BELT. THE ENTIRE SYSTEM IS LOCATED IN THE MILL BUILDING

Process: RM1 is located at GROUND, Building MILLBLDING - TRANSFER OF RAW MATERIAL TO RAW MILL 1.

Emission unit 032000 - EMISSION 032000 CONSISTS OF THE RAW MILL 2 SYSTEM WHICH INCLUDES AN ADDITIVE BELT/COLLECTOR BELT AND A MILL FEED BELT. THE ENTIRE SYSTEM IS LOCATED IN THE MILL BUILDING.

Process: RM2 is located at GROUND, Building MILLBLDING - TRANSFER OF RAW MATERIAL TO RAW MILL 2.

Emission unit 041000 - EMISSION UNIT 041000 CONSISTS OF THE TWO ROTARY, WET PROCESS KILNS (KILN 1 AND KILN 2) AND THE TWO CLINKER COOLERS (CLINKER COOLER 1 AND CLINKER COOLER 2). THERE ARE BUILDINGS AT EITHER END OF THE KILNS; THE DISCHARGE END BUILDING WHERE THE CLINKER COOLERS ARE LOCATED, AND THE FEED END BUILDING.

Emission unit 041000 is associated with the following emission points (EP):

43101, 45101, 45201

Process: CC1 is located at Building DISCHENDBG - CLINKER FROM KILN 1 IS AIR-COOLED IN



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CLINKER COOLER 1. PARTICULATE EMISSIONS ARE CONTROLLED BY A FABRIC FILTER DUST COLLECTOR. THE CLINKER COOLER IS LOCATED IN THE KILN DISCHARGE END BUILDING.

Process: CC2 is located at Building DISCHENDBG - CLINKER FROM KILN 2 IS AIR-COOLED IN CLINKER COOLER 2. PARTICULATE EMISSIONS ARE CONTROLLED BY A FABRIC FILTER DUST COLLECTOR. THE CLINKER COOLER IS LOCATED IN THE KILN DISCHARGE END BUILDING.

Process: K12 MANUFACTURE OF CLINKER BY TWO ROTARY WET PROCESS KILNS. IN THE WET PROCESS, THE KILNS ARE PRIMARILY FED A WATER-BASED SLURRY. THE WATER IS DRIVEN OFF IN THE KILN AND THE RAW FEED IS CONVERTED TO CLINKER. PARTICULATE EMISSIONS ARE CONTROLLED BY TWO ELECTROSTATIC PRECIPITATOR UNITS, EACH CONSISTING OF TWO UNITS (LOWER AND UPPER). BOTH ESPs ARE CONNECTED TO A SINGLE, MAIN STACK (EP 43101).

DURING NORMAL PRODUCTION OPERATION, THE KILNS USE A SOLID FUEL MIXTURE OF COAL AND/OR COKE OR LIQUID FUELS SUCH AS FUEL OIL. WHEN THE KILNS ARE STARTED UP, FUEL OIL IS USED TO PREHEAT THEM BEFORE RESUMING NORMAL PRODUCTION OPERATIONS.

AS A SOLID FUEL, THE KILNS MAY ALSO UTILIZE TIRE-DERIVED-FUEL (TDF) WHICH MAY BE FIRED IN THE KILN THROUGH A MID-KILN INJECTION SYSTEM AND ASSOCIATED CONVEYING AND HANDLING EQUIPMENT. TDF MAY BE USED TO REPLACE UP TO 20% OF THE FOSSIL SOLID FUEL HEAT INPUT (APPROXIMATELY 6 TIRES PER REVOLUTION) FOR EACH OF THE TWO CEMENT KILNS.

TDF WILL NOT BE USED DURING KILN START UP AND SHUT DOWN (START UP AND SHUT DOWN AS DEFINED IN THE FACILITY'S START UP, SHUTDOWN, MALFUNCTION (SSM) PLAN); USAGE WILL BE CEASED DURING MALFUNCTION (MALFUNCTION AS DEFINED IN THE SSM PLAN). THE SSM PLAN SHALL BE REVISED TO ADDRESS TDF FIRING. TDF WILL NOT BE FIRED WITHOUT NYSDEC APPROVAL OF THE REVISED SSM PLAN.

A MIXING FAN WILL BE INSTALLED IN THE KILNS TO AID TDF COMBUSTION.

Emission unit 042000 - EMISSION UNIT 042000 CONSISTS OF CLINKER TRANSFER SYSTEMS FROM THE CLINKER COOLERS TO STORAGE SILOS #8 AND #11 LOCATED IN THE MILL BUILDING AND KILN DUST FROM THE KILNS TO THE DUST LANDFILL AND DUST SCOOP SYSTEMS. THE CLINKER TRANSPORT SYSTEMS CONSISTS OF BUCKET ELEVATORS AND DRAG CONVEYORS LOCATED IN THE DISCHARGE END BUILDING AND CLINKER WELLS IN THE STORAGE HALL. THE DUST SCOOP STORAGE BIN IS LOCATED IN THE FEED END BLDG. AND THE DUST SCOOP SYSTEM IS LOCATED IN THE DUST SCOOP TOWER ADJACENT TO THE KILN 1.

Emission unit 042000 is associated with the following emission points (EP):
40100, 43102, 43103, 43104, 43105, 43106, 46008, 46011, 46018, 46019

Process: CKD is located at Building FEEDENDBLG - LOADOUT OF CEMENT KILN DUST (CKD) FROM THE CKD LOADOUT SPOUT LOCATED IN THE FEED END BUILDING. THE PROCESS IS VENTED THROUGH A 1000 CFM DUST COLLECTOR TO ENABLE LOADING OF ENCLOSED

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TANKER TRUCKS. THE LOADOUT PROCESS IS LOCATED IN THE FEED END BUILDING.

Process: CX1 is located at Building MILLBLDING - TRANSFER OF CLINKER FROM THE CLINKER TRANSPORT SYSTEMS FOR EACH KILN SYSTEM TO CLINKER SILO 8 AND CLINKER SILO 11 LOCATED IN THE MILL BUILDING.

Process: CX2 is located at Building DISCHENDBG - TRANSFER OF CLINKER COOLER 1 VIA CLINKER TRANSPORT SYSTEM 1 AND FROM CLINKER COOLER 2 VIA CLINKER TRANSPORT SYSTEM 2 TO THE FEED BELTS FOR CLINKER SILOS 8 AND 11. CLINKER TRANSPORT SYSTEM 1 IS COMPRISED OF THE EAST BUCKET ELEVATOR (#461206), THE WEST BUC KET ELEVATOR (#461207), THE EAST DRAG CONVEYOR (#461208), THE WEST DRAG CONVEYOR (461209) AND THE KILN 1 CLINKER WELL IN THE CLINKER STORAGE HALL. CLINKER TRANSPORT SYSTEM 2 IS COMPRISED OF THE EAST BUCKET ELEVATOR (#462206), THE WEST BUCKET ELEVATOR (#4 62207), THE EAST DRAG CONVEYOR (#462208), THE WEST DRAG CONVEYOR (#462209), THE COLLECTOR DRAG CONVEYOR (#460204) AND THE KILN 2 CLINKER WELL IN THE CLINKER STORAGE HALL. BOTH TRANSPORT SYSTEMS ARE LOCATED IN THE DISCHARGE END BUILDING. THIS PROCESS INC LUDES ALLEVIATORS ON THE KILN 1 AND KILN 2 DISCHARGE END DUST SILOS.

Process: CX3 is located at Building SCOOPTOWR1 - TRANSFER OF CLINKER TO THE DUST SCOOP SYSTEM #1. CLINKER WILL BE INJECTED INTO THE KILN VIA THE EXISTING DUST SCOOP SYSTEM. TRANSFER POINTS WILL BE VENTED TO A FABRIC FILTER DUST COLLECTOR.

Process: DS1 is located at Building SCOOPTOWR1 - TRANSFER OF CEMENT KILN DUST (CKD) TO THE DUST SCOOP STORAGE BIN #1 IN THE FEED END BUILDING AND THEN TO DUST SCOOP TOWER AND TRANSFER SYSTEM #1 WHERE IT IS REINTRODUCED INTO KILN 1. THE DUST SCOOP TOWER IS LOCATED ADJACENT TO KILN 1 AS THE SCOOP SYSTEM IS A DEVICE WHICH INTRODUCES CKD BACK INTO THE HOT SECTION OF THE KILN, BENEATH THE FORMING CLINKER.

Process: DS2 is located at Building SCOOPTOWR2 - TRANSFER OF CEMENT KILN DUST (CKD) TO DUST SCOOP STORAGE BIN #2 IN THE FEED END BUILDING AND THEN TO DUST SCOOP TOWER AND TRANSFER SYSTEM #2 WHERE IT IS TO BE REINTRODUCED INTO KILN 2. THE DUST SCOOP SYSTEM #2 WILL BE IDENTICAL IN DESIGN TO DUST SCOOP SYSTEM #1. THIS PROCESS IS CONSIDERED TO BE AN ALTERNATE OPERATING SCENARIO FOR TITLE V PURPOSES AND FURTHER DETAIL IS PROVIDED IN APPENDIX F.

Process: PUG is located at Building PUGBLDG - TRANSFER OF CKD TO THE PUG MILL SYSTEM. DUST WILL BE PENUMATICALLY CONVEYED FROM THE DUST WASTE SILO IN THE KILN FEED END BUILDING TO AN INTERMEDIATE DUST STORAGE SILO FOR THE PUG MILL SYSTEM. DUST WILL BE TRANSFERRED FROM THE SILO TO THE PUG MILL VIA AN AIR SLIDE. ALL TRANSFER POINTS ARE CONTROLLED BY A FABRIC FILTER (4DC11). THE PUGMILL'S FUNCTION IS TO PRE-CONDITION THE DUST PRIOR TO REMOVAL.

Emission unit 051000 - EMISSION UNIT 051000 CONSISTS OF THE CEMENT MILL 1 SYSTEM. THIS INCLUDES FEED BELTS TO THE CEMENT MILL, THE MILL, CONVEYING EQUIPMENT AFTER THE MILL (BUCKET ELEVATOR AND AIR SLIDES), THE MILL 1 SEPARATOR AND CEMENT COOLER. ALL OF THE COMPONENTS OF THE CEMENT MILL 1 SYSTEM ARE CONTAINED IN THE MILL BUILDING.

Emission unit 051000 is associated with the following emission points (EP):
52101, 53101, 53102

Process: CM1 is located at GROUND, Building MILLBLDING - GRINDING OF CLINKER TO PRODUCE FINISHED PORTLAND CEMENT. THIS PROCESS IS LOCATED IN THE MILL BUILDING.

Process: FX1 is located at ALL, Building MILLBLDING - TRANSFER OF CLINKER TO CEMENT



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MILL 1 AND THE TRANSFER OF FINISHED CEMENT THROUGH THE CEMENT MILL 1 SYSTEM'S SEPARATOR, BUCKET ELEVATOR, AIRSLIDES, CEMENT COOLER, AND THE HOPPER ABOVE THE FK PUMP WHICH TRANSPORTS IT TO THE CUSTOMER AND BUFFER STORAGE SILOS . THE ENTIRE CEMENT MILL 1 SYSTEM IS CONTAINED IN THE MILL BUILDING.

Emission unit 052000 - EMISSION UNIT 052000 CONSISTS OF THE CEMENT MILL 2 SYSTEM. THIS INCLUDES FEED BELTS TO THE CEMENT MILL, THE MILL, CONVEYING EQUIPMENT AFTER THE MILL (BUCKET ELEVATOR AND AIR SLIDES), THE MILL 1 SEPARATOR AND CEMENT COOLER. ALL OF THE COMPONENTS OF THE CEMENT MILL 2 SYSTEM ARE CONTAINED IN THE MILL BUILDING.

Emission unit 052000 is associated with the following emission points (EP):

52201, 53201, 53202

Process: CM2 is located at GROUND, Building MILLBLDING - GRINDING OF CLINKER TO PRODUCE FINISHED PORTLAND CEMENT. THIS PROCESS IS LOCATED IN THE MILL BUILDING.

Process: FX2 is located at ALL, Building MILLBLDING - TRANSFER OF CLINKER TO CEMENT MILL 2 AND THE TRANSFER OF FINISHED CEMENT THROUGH THE CEMENT MILL 2 SYSTEM'S SEPARATOR, BUCKET ELEVATOR, AIRSLIDES, CEMENT COOLER, AND THE HOPPER ABOVE THE FK PUMP WHICH TRANSPORTS IT TO THE CUSTOMER AND BUFFER STORAGE SILOS . THE ENTIRE CEMENT MILL 2 SYSTEM IS CONTAINED IN THE MILL BUILDING.

Emission unit 053000 - EMISSION UNIT 053000 CONSISTS OF THE CEMENT MILL 3 SYSTEM. THIS INCLUDES FEED BELTS TO THE CEMENT MILL, THE MILL, CONVEYING EQUIPMENT AFTER THE MILL (BUCKET ELEVATOR AND AIR SLIDES), THE MILL 3 SEPARATOR, CEMENT COOLER, AND MASONARY FRINGE SYSTEM.

Emission unit 053000 is associated with the following emission points (EP):

52301, 53301, 53302

Process: CM3 is located at GROUND, Building MILLBLDING - GRINDING OF CLINKER TO PRODUCE FINISHED PORTLAND CEMENT. THIS PROCESS IS LOCATED IN THE MILL BUILDING.

Process: FX3 is located at ALL, Building MILLBLDING - TRANSFER OF CLINKER TO CEMENT MILL 3 AND THE TRANSFER OF FINISHED CEMENT THROUGH THE CEMENT MILL 3 SYSTEM'S SEPARATOR, BUCKET ELEVATOR, AIRSLIDES, CEMENT COOLER, AND THE HOPPER ABOVE THE FK PUMP WHICH TRANSPORTS IT TO THE CUSTOMER AND BUFFER STORAGE SILOS . THE ENTIRE CEMENT MILL 3 SYSTEM IS CONTAINED IN THE MILL BUILDING

Emission unit 054000 - EMISSION UNIT 054000 CONSISTS OF THE CEMENT MILL 4 SYSTEM. THIS INCLUDES FEED BELTS TO THE CEMENT MILL, THE MILL, CONVEYING EQUIPMENT AFTER THE MILL (BUCKET ELEVATOR AND AIR SLIDES), THE TWO MILL 4 SEPARATORS AND CEMENT COOLER. ALL OF THE COMPONENTS OF THE CEMENT MILL 4 SYSTEM ARE CONTAINED IN THE MILL BUILDING.

Emission unit 054000 is associated with the following emission points (EP):

52401, 53401, 53402, 53403

Process: CM4 is located at GROUND, Building MILLBLDING - GRINDING OF CLINKER TO PRODUCE FINISHED PORTLAND CEMENT. THIS PROCESS IS LOCATED IN THE MILL



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Process: FX4 is located at ALL, Building MILLBLDING - TRANSFER OF CLINKER TO CEMENT MILL 4 AND THE TRANSFER OF FINISHED CEMENT THROUGH THE CEMENT MILL 4 SYSTEM'S BUCKET ELEVATOR, AIRSLIDES, CEMENT COOLER, AND THE HOPPER ABOVE THE FK PUMP WHICH TRANSPORTS IT TO THE CUSTOMER AND BUFFER STORAGE SILOS. THE ENTIRE CEMENT MILL 4 SYSTEM IS CONTAINED IN THE MILL BUILDING.

Process: FX5 is located at 6, Building MILLBLDING - SEPARATION BY PARTICLE SIZE OF FINISHED CEMENT FROM CEMENT MILL 4 BY TWO SEPARATORS - CM4 SEPARATOR 1 (SOUTH) AND CM4 SEPARATOR 2 (NORTH). THIS PROCESS ALSO INCLUDES THE AIRSLIDES WHICH CONVEY THE CEMENT TO THE SEPARATORS AS THEY ARE CONTROLLED BY THE SAME DUST COLLECTORS THAT CONTROL PARTICULATE EMISSIONS FOR THE SEPARATORS. THIS PROCESS IS LOCATED IN THE MILL BUILDING.

Emission unit 071000 - EMISSION UNIT 071000 CONTAINS THE CEMENT LOADOUT AND PRODUCT SHIPMENT ACTIVITIES AT THE FACILITY. SPECIFICALLY, THIS INCLUDES THE EAST AND WEST TRUCK LOADING SPOUTS, THE RAILCAR UNLOADING SYSTEM AND THE RAILCAR LOADING SPOUTS LOCATED AT THE CUSTOMER SILOS AND THE EAST AND WEST BAGGING MACHINES LOCATED IN THE PACKHOUSE AS WELL AS THE REVERSIBLE CONVEYORS WHICH TRANSFER PRODUCT TO THESE AREAS. MISCELLANEOUS EMISSION SOURCES ASSOCIATED WITH THE PACKHOUSE (BAG SHREDDER AND VACUUM) AND CUSTOMER SILOS ARE ALSO INCLUDED IN EU 071000.

Emission unit 071000 is associated with the following emission points (EP):

62002, 62003, 62004, 62005, 62006, 62007, 62008, 62009, 63001, 63002, 63003, 63004

Process: BAG is located at Building PACKHSEBLG - FILLING OF BAGS OF CEMENT VIA TWO BAGGING MACHINES DESIGNATED AS EAST AND WEST. THE WEST BAGGING MACHINE SYSTEM (EMISSION SOURCE 71WBM) CONSISTS OF A BUCKET ELEVATOR (#630202); A ROTEX SCREEN (#630106); THE SURGE BIN OVER THE BAGGING MACHINE; THE BAGGING MACHINE ITSELF (#630102). THE EAST BAGGING MACHINE SYSTEM (EMISSION SOURCE 71EBM) CONSISTS OF A BUCKET ELEVATOR (#630201); A ROTEX SCREEN (#630105); THE SURGE BIN OVER THE BAGGING MACHINE; THE BAGGING MACHINE (#630101). THIS ENTIRE PROCESS IS LOCATED IN THE PACKHOUSE.

Process: CL1 is located at Building CUSTOSILOS - LOADOUT OF FINISHED CEMENT FROM CUSTOMER SILOS TO TRUCKS VIA THE NORTH LOADING SPOUT. THIS INCLUDES TRANSPORT OF FINISHED PRODUCT TO THE LOADING SPOUT VIA THE NORTH REVERSIBLE CONVEYOR. THE SPOUT AND CONVEYOR ARE LOCATED IN THE CUSTOMER SILO AREA OF THE FACILITY.

Process: CL2 is located at Building CUSTOSILOS - LOADOUT OF FINISHED CEMENT FROM CUSTOMER SILOS TO TRUCKS VIA THE SOUTH LOADING SPOUT. THIS INCLUDES TRANSPORT OF FINISHED PRODUCT TO THE LOADING SPOUT VIA THE SOUTH REVERSIBLE CONVEYOR AND SCREW CONVEYOR TO THE SPOUT. THE SPOUT AND CONVEYORS ARE LOCATED IN THE CUSTOMER SILO AREA OF THE FACILITY.

Process: CL3 is located at Building CUSTOSILOS - LOADOUT OF FINISHED CEMENT FROM CUSTOMER SILOS TO RAILCARS VIA TWO LOADING SPOUTS AND UNLOADING OF PRODUCT FROM RAILCARS TO THE CUSTOMER SILOS. THIS INCLUDES TRANSPORT OF FINISHED PRODUCT TO THE LOADOUT SPOUTS VIA THE NORTH AND SOUTH REVERSIBLE CONVEYORS. THE SPOUTS AND CONVEYORS ARE LOCATED IN THE CUSTOMER SILO AREA OF THE FACILITY.

Process: CS1 Transfer of cement into the customer silos. this process is vented by a total of five dust collectors located on top of the customer silos.

Process: CX4 is located at Building CUSTOSILOS - Transfer of cement into the customer silos. This



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process is vented by a total of 5 dust collectors located on the top of the customer silos.

Process: PBS is located at GROUND, Building PACKHSEBLG - SHREDDING OF REJECT BAGS FROM THE BAG MACHINE SYSTEMS. PARTICULATE EMISSIONS FROM THIS PROCESS ARE CONTROLLED BY A BAGHOUSE.

Process: PVC is located at GROUND, Building PACKHSEBLG - VACUUM FOR CLEANUP OF PACKHOUSE AREA. PARTICULATE EMISSIONS FROM THE VACUUM ARE CONTROLLED BY A SMALL BAGHOUSE.

Emission unit 072000 - EMISSION UNIT 072000 CONSISTS OF COVERED BELT CONVEYORS USED TO TRANSPORT FINISHED CEMENT BETWEEN THE CUSTOMER AND BUFFER SILOS AND FROM THE SILOS TO THE WHARF AREA FOR BARGE SHIPMENT. THE BELT THAT TRANSFERS PRODUCT BETWEEN THE CUSTOMER AND BUFFER SILOS IS LOCATED AT THE NORTH END OF THE BUFFER SILOS. THE THREE BELTS WHICH TRANSPORT PRODUCT TO THE WHARF ARE BELTS 8A, 8B, AND 9. PARTICULATE EMISSIONS FROM ALL TRANSFER POINTS ARE CONTROLLED BY BAGHOUSES. EMISSION POINTS ASSOCIATED WITH THE BUFFER SILOS ARE ALSO INCLUDED IN EU 72000.

Emission unit 072000 is associated with the following emission points (EP):
55001, 55004, 55006, 57001, 57002, 57003, 62001

Process: BS1 Transfer of cement into the buffer silos. There are a total of 6 silos, each with a dust collector that vent to the atmosphere through a total of three emission points.

Process: CMX is located at Building BUFFESILOS - TRANSFER OF FINISHED CEMENT BETWEEN THE BUFFER AND CUSTOMER SILOS AND FROM THE SILOS TO THE WHARF AREA FOR BARGE SHIPMENT. THE TRANSFER BETWEEN THE BUFFER AND CUSTOMER SILOS (EMISSION SOURCE 72XFR) CONSISTS OF AN AIRSLIDE, THE NORTHWEST REVERSIBLE CONVEYOR AND TRANSFER INTO A HOPPER OVER A CEMENT PUMP (#620501). PARTICULATE EMISSIONS FROM ALL TRANSFER POINTS ARE CONTROLLED BY BAGHOUSES. THE TRANSFER BETWEEN THE BUFFER AND CUSTOMER SILOS IS LOCATED AT THE NORTH END OF THE BUFFER SILOS, AND THE LOAD POINT FOR BELT 8A IS AT THE SOUTH END OF THE BUFFER SILOS. THE TRANSFER POINTS BETWEEN BELTS 8A AND 8B AND BETWEEN BELTS 8B AND 9 OCCUR AT TRANSFER HOUSES BETWEEN THE BELTS GOING DOWN TO THE WHARF AREA.

Process: CX5 is located at Building BUFFESILOS - Transfer of cement into the buffer silos. This process is vented by a total of 6 dust collectors. Each dust collector exhaust combines with the adjacent collector to make a total of 3 emission points.

Emission unit 073000 - EMISSION UNIT 073000 CONSISTS OF THE K-CEMENT IMPORT AND STORAGE SYSTEM. K-CEMENT IS IMPORTED BY RAILCAR AND STORED IN TWO BERTHA TANKS LOCATED OUTSIDE BY THE CUSTOMER SILOS. PARTICULATE EMISSIONS FROM THE TRANSFER OF K-CEMENT INTO THE TANKS ARE CONTROLLED BY A BAGHOUSE.

Emission unit 073000 is associated with the following emission points (EP):
62010

Process: KCM TRANSFER OF K-CEMENT SHIPPED IN BY RAILCARS AND STORED IN TWO DEDICATED BERTHA TANKS.

Emission unit 090000 - EMISSION UNIT 090000 CONTAINS EMISSION SOURCES INVOLVED IN THE FACILITY'S QUARRY OPERATIONS. THIS INCLUDES THE PRIMARY CRUSHER LOCATED IN THE PRIMARY CRUSHER BUILDING.

Emission unit 090000 is associated with the following emission points (EP):



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Process: PCR is located at GROUND, Building PRCRUSHER - PRIMARY CRUSHING OF CALCIUM SOURCES (E.G., LIMESTONE) USED IN CEMENT MANUFACTURE.

Emission unit 100000 - EMISSIONS UNIT 100000 CONTAINS EMISSION SOURCES INVOLVED IN THE FACILITY'S WHARF OPERATIONS. THIS INCLUDES THE TRANSFER OF FINISHED PRODUCT FROM BELT 9 TO BARGES. PARTICULATE EMISSIONS FROM THIS TRANSFER IS CONTROLLED BY A BAGHOUSE.

Emission unit 100000 is associated with the following emission points (EP):
58001

Process: CMB is located at GROUND, Building WHARF AREA - TRANSFER OF FINISHED CEMENT FROM BELT 9 TO BARGES LOCATED IN THE WHARF AREA.

Title V/Major Source Status

LAFARGE BUILDING MATERIALS INC is subject to Title V requirements. This determination is based on the following information:

The facility is major for carbon monoxide (CO), oxides of nitrogen (NOx) , particulate matter less than 10 microns (PM-10), sulfur dioxide SO2).major_src_status

Program Applicability

The following chart summarizes the applicability of LAFARGE BUILDING MATERIALS INC with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	YES
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	NO
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	NO
SIP	YES

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.



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NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's).

MACT Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is in compliance with all requirements.

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

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SIC Code	Description
3241	CEMENT, HYDRAULIC

SCC Codes

SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information.Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code	Description
3-05-007-06	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Kilns
3-05-007-09	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Primary Crushing
3-05-007-10	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Secondary Crushing
3-05-007-12	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Raw Material Transfer
3-05-007-14	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Clinker Cooler
3-05-007-16	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Clinker Transfer
3-05-007-17	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Clinker Grinding
3-05-007-18	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) CEMENT SILOS
3-05-007-19	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Cement Load Out
3-05-007-29	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) FINISH GRINDING MILL AIR SEPARATOR
3-05-007-99	MINERAL PRODUCTS MINERAL PRODUCTS - CEMENT MANUFACTURE (WET PROCESS) Other Not Classified

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In the following table, the CAS No. or Chemical Abstract Service code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
001746-01-6	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN		>= 10 tpy
000075-07-0	ACETALDEHYDE		> 0 but < 10 tpy
000107-02-8	ACROLEIN		>= 10 tpy
007664-41-7	AMMONIA		>= 50 tpy but < 100 tpy
007440-36-0	ANTIMONY		> 0 but < 10 tpy
007440-38-2	ARSENIC		> 0 but < 10 tpy
007440-39-3	BARIUM		> 0 but < 2.5 tpy
000071-43-2	BENZENE		>= 10 tpy
007440-41-7	BERYLLIUM		> 0 but < 10 tpy
007440-43-9	CADMIUM		> 0 but < 10 tpy
000630-08-0	CARBON MONOXIDE	2892509	
007440-47-3	CHROMIUM		> 0 but < 10 tpy
018540-29-9	CHROMIUM(VI)		> 0 but < 10 tpy
007440-48-4	COBALT		> 0 but < 10 tpy
007440-50-8	COPPER		> 0 but < 2.5 tpy
000050-00-0	FORMALDEHYDE		> 0 but < 10 tpy
0NY100-00-0	HAP		>= 10 tpy but < 25 tpy
007647-01-0	HYDROGEN CHLORIDE		>= 10 tpy
007664-39-3	HYDROGEN FLUORIDE		>= 10 tpy
007439-92-1	LEAD		> 0 but < 10 tpy
007439-96-5	MANGANESE		> 0 but < 10 tpy
007439-97-6	MERCURY		> 0 but < 10 tpy
000074-82-8	METHANE		>= 10 tpy but < 25 tpy
0NY059-28-0	NICKEL (NI 059)		> 0 but < 10 tpy
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS		> 0 but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN		>= 250 tpy
0NY075-00-0	PARTICULATES		>= 250 tpy
0NY075-00-5	PM-10		>= 250 tpy
001336-36-3	POLYCHLORINATED		> 0 but < 10 tpy

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007782-49-2	BIPHENYL	> 0 but < 10 tpy
007440-22-4	SELENIUM	> 0 but < 2.5 tpy
007446-09-5	SILVER	>= 250 tpy
007440-28-0	SULFUR DIOXIDE	> 0 but < 2.5 tpy
007440-62-2	THALLIUM	> 0 but < 2.5 tpy
000075-01-4	VANADIUM	> 0 but < 10 tpy
007440-66-6	VINYL CHLORIDE	>= 250 tpy
	VOC	>= 10 tpy but < 25 tpy
	ZINC	

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6NYCRR Part 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: Timely Application for the Renewal of Title V Permits -6 NYCRR Part 201-6.3(a)(4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based



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on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)

This permit does not convey any property rights of any sort or any exclusive privilege.

Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;



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- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.
- iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item L: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

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Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

**Item A: General Provisions for State Enforceable Permit Terms and Condition - 6
 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
-- FACILITY	ECL 19-0301	98	Powers and Duties of the Department with respect to air pollution control
0-41000/43101/K12	40CFR 52-A.21	74	Prevention of Significant Deterioration
0-41000/43101/K12	40CFR 52-A.21(r)	81, 82	Source obligation
0-41000/43101/K12	40CFR 63-A.10(e)(3)(i)	83	
FACILITY	40CFR 63-LLL.1342	36	NESHAP for Portland Cement Manufacturing - General Standards
0-41000	40CFR 63-LLL.1342	67	NESHAP for Portland Cement Manufacturing - General Standards
0-41000/43101/K12	40CFR 63-LLL.1343(b)(1)	84	NESHAP for Portland Cement Manufacturing - Standards for kilns and in-line kilns/raw mills



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0-41000/43101/K12	40CFR 63- LLL.1343 (b) (2)	85	Standards for Kilns
0-41000/43101/K12	40CFR 63- LLL.1343 (b) (3)	86	Existing, reconstructed or new brownfield/major sources
0-41000/43101/K12	40CFR 63-LLL.1344 (a)	87	Operating Limits for kilns
0-41000/43101/K12	40CFR 63-LLL.1344 (b)	88	Operating limits for kilns
0-41000/43101/K12	40CFR 63-LLL.1344 (f)	89	Portland Cement MACT - Good Combustion Practices
0-41000/43101/K12	40CFR 63-LLL.1344 (g)	90	Portland Cement MACT - no increase in mercury
0-41000/43101/K12	40CFR 63-LLL.1344 (h)	91	Portland Cement MACT - product quality
0-41000	40CFR 63- LLL.1345 (a) (1)	68	NESHAP for Portland Cement Manufacturing - Standards for clinker coolers
0-41000	40CFR 63- LLL.1345 (a) (2)	69	Standards for clinker coolers
FACILITY	40CFR 63-LLL.1347	37	NESHAP for Portland Cement Manufacturing - Standards for raw and finish mills
FACILITY	40CFR 63-LLL.1348	38	NESHAP for Portland Cement Manufacturing - Standards for other affected sources
FACILITY	40CFR 63-LLL.1349 (c)	39	Performance testing requirements
FACILITY	40CFR 63-LLL.1349 (d)	40	Performance testing requirements
0-41000/43101/K12	40CFR 63-LLL.1349 (e)	92	Performance testing requirements
FACILITY	40CFR 63- LLL.1350 (a) (4)	41	36.1350a(4) Monitoring Requirements
FACILITY	40CFR 63-LLL.1350 (b)	42	Monitoring Requirements
0-41000/43101/K12	40CFR 63- LLL.1350 (c) (1)	93	Monitoring Requirements
0-41000/43101/K12	40CFR 63- LLL.1350 (c) (3)	94	Monitoring requirements
0-41000	40CFR 63- LLL.1350 (d) (1)	70	Monitoring Requirements
0-41000	40CFR 63- LLL.1350 (d) (3)	71	Monitoring Requirements
FACILITY	40CFR 63-LLL.1350 (e)	43	Monitoring requirements
0-41000	40CFR 63-LLL.1350 (f)	72	Monitoring requirements
0-41000	40CFR 63-LLL.1350 (i)	73	Monitoring Requirements
FACILITY	40CFR 63-LLL.1350 (j)	44	Monitoring requirements
FACILITY	40CFR 63-LLL.1350 (o)	45	Mercury in fly ash
FACILITY	40CFR 63-LLL.1350 (p)	46	Mercury in fly ash
FACILITY	40CFR 63-LLL.1353	47	Notification Requirements
FACILITY	40CFR 63-LLL.1354	53	Reporting



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FACILITY	40CFR 63-LLL.1355	48	Requirements Recordkeeping
FACILITY	40CFR 63-LLL.1356	49	Requirements
FACILITY	40CFR 68	21	Exemption from NSPS
FACILITY	40CFR 82-F	22	Chemical accident prevention provisions
FACILITY	6NYCRR 200.6	1	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.7	10, 23	Acceptable ambient air quality.
FACILITY	6NYCRR 201-1.4	99	Maintenance of equipment.
FACILITY	6NYCRR 201-1.7	11	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.8	12	Recycling and Salvage
FACILITY	6NYCRR 201-3.2(a)	13	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.3(a)	14	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-6	24, 50, 51	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6.5(a)(4)	15	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5(a)(7)	2	General conditions
FACILITY	6NYCRR 201-6.5(a)(8)	16	General conditions
FACILITY	6NYCRR 201-6.5(c)	3	Fees
FACILITY	6NYCRR 201-6.5(c)(2)	4	General conditions
FACILITY	6NYCRR 201-6.5(c)(3)(ii)	5	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(d)(5)	17	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(e)	6, 25	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(f)	26	Compliance schedules
FACILITY	6NYCRR 201-6.5(f)(6)	18	Compliance Certification
FACILITY	6NYCRR 201-7.1	27, 52	Operational flexibility
0-41000/43101/K12	6NYCRR 201-7.1	74	Off Permit Changes
FACILITY	6NYCRR 202-1.1	19	Federally Enforceable Emissions Caps
0-41000/43101/K12	6NYCRR 202-1.1	75, 76	Federally Enforceable Emissions Caps
FACILITY	6NYCRR 202-1.2	28	Required emissions tests.
FACILITY	6NYCRR 202-1.3(a)	29	Required emissions tests.
FACILITY	6NYCRR 202-2.1	7	Notification.
			Acceptable procedures - reference methods
			Emission Statements -

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FACILITY	6NYCRR 202-2.5	8	Applicability
			Emission Statements -
			record keeping
			requirements.
0-41000	6NYCRR 204-1.6	54	Standard Requirements
0-41000	6NYCRR 204-2.1	55	Authorization and
			Responsibilities of
			the NOx Authorized
			Account
			Representative
0-41000	6NYCRR 204-4.1	56	Compliance
			Certification Report
0-41000	6NYCRR 204-7.1	57	Submission of NOx
			Allowance Transfers
0-41000	6NYCRR 204-8.1	58	General Requirements
0-41000	6NYCRR 204-8.2	59, 60	Initial Certification
			and Recertification
			Procedures
0-41000	6NYCRR 204-8.3	61	Out of Control
			Periods
0-41000	6NYCRR 204-8.4	62	Notifications
0-41000	6NYCRR 204-8.7	63	Additional
			Requirements to
			Provide Heat Input
			Data for Allocations
			Purposes
FACILITY	6NYCRR 211.2	100, 101	General Prohibitions
			- air pollution
			prohibited.
FACILITY	6NYCRR 211.3	20	General Prohibitions
			- visible emissions
			limited
0-41000	6NYCRR 212.11	103	Sampling and
			monitoring
0-41000	6NYCRR 212.3(a)	64	General Process
			Emission Sources -
			emissions from
			existing emission
			sources
0-41000	6NYCRR 212.4(a)	65	General Process
			Emission Sources -
			emissions from new
			sources and/or
			modifications
FACILITY	6NYCRR 212.6(a)	30	General Process
			Emission Sources -
			opacity of emissions
			limited
0-41000	6NYCRR 212.9	102	Tables.
FACILITY	6NYCRR 215	9	Open Fires
0-41000	6NYCRR 220.2(b)	66	Large existing kilns
			and clinker coolers
FACILITY	6NYCRR 220.4(c)	31	Opacity limits for
			Portland Cement
			processes.
0-42000	6NYCRR 220.5(a)	95	Particulate emissions
			from dust dumps.
0-42000	6NYCRR 220.5(b)	96	Particulate emissions
			from dust dumps.
0-42000	6NYCRR 220.5(c)	97	Particulate emissions
			from dust dumps.
0-41000/43101/K12	6NYCRR 220.6(a)	77	Gaseous emissions
			from kiln stacks.
0-41000/43101/K12	6NYCRR 220.6(b)(1)	78, 79	Gaseous emissions



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0-41000/43101/K12	6NYCRR 220.8(a)	80	from kiln stacks.
FACILITY	6NYCRR 225-1.2(a)(2)	32, 33, 34	Source monitoring.
			Sulfur in Fuel
			Limitations Post
			12/31/87.
FACILITY	6NYCRR 225-1.8	35	Reports, sampling and
			analysis.

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-0301.

This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6NYCRR Part 200-.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6NYCRR Part 200-.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6NYCRR Part 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-3.2(a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-3.3(a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.



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6NYCRR Part 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6NYCRR 201-6.5(a)(4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

6NYCRR 201-6.5(a)(7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6NYCRR 201-6.5(a)(8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

6NYCRR Part 201-6.5(c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6NYCRR Part 201-6.5(c)(2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6NYCRR Part 201-6.5(c)(3)(ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 201-6.5(d)(5)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.



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6NYCRR Part 201-6.5(e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6NYCRR 201-6.5(f)(6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

6NYCRR Part 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6NYCRR Part 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calENDar year.

6NYCRR Part 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6NYCRR Part 211-.2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3

This condition requires that the opacity (i.e., the degree to which emissions other than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.

This Part lists the regulated substances and there applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act AmENDments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery



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practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements

In addition to Title V, LAFARGE BUILDING MATERIALS INC has been determined to be subject to the following regulations:

40 CFR 52.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions;

ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

40 CFR 52.21 (r)

Source Obligation:

40 CFR 63.10 (e) (3) (i)

These are general conditions that apply to facilities subject to a NESHAP.

40 CFR 63.1342

This section provides general emission standards and operating limits for specific sources at Portland Cement Manufacturing Facilities. Table 1 provides a summary.

40 CFR 63.1343 (b) (1)

This section provides particulate matter emission limitations for certain operations (kilns and in-line kiln/raw mills) at existing, reconstructed, or new brownfield/major sources.

40 CFR 63.1343 (b) (2)

Provided here is an emission limitation for visible emissions (opacity) on certain operations (kilns and in-line kiln/raw mills) at existing, reconstructed, or new brownfield/major sources.

40 CFR 63.1343 (b) (3)

Contained here are Dioxin/Furan emission limits for certain operations (kilns and in-line kiln/raw mills) at existing, reconstructed, or new brownfield/major sources.

40 CFR 63.1344 (a)

This provision limits the temperature of exhaust gas exiting certain locations of the cement manufacturing process and leading to particulate matter control devices (ie. baghouse, etc.).

40 CFR 63.1344 (b)

This section provides a temperature limit for affected sources.

40 CFR 63.1344 (f)

This condition requires the facility to use good combustion practices in their kiln in order to minimize Total Hydrocarbon emissions..

40 CFR 63.1344 (g)

This condition forbids the use of material in the kiln that will result in an increase in mercury emissions.

40 CFR 63.1344 (h)

This condition requires the facility owner or operator to remove (i.e. not recycle to the kiln) from the



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kiln system sufficient cement kiln dust to maintain the desired product quality

40 CFR 63.1345 (a) (1)

This regulation requires the owner or operator of a new or existing clinker cooler at a facility which is a major source, subject to Subpart LLL, to limit the emissions of particulates from the clinker to 0.10 pounds per ton of feed (0.05 kg/MG) to the kiln. Emissions testing is required initially and every 5 years thereafter.

40 CFR 63.1345 (a) (2)

This regulation requires the owner or operator of a new or existing clinker cooler at a facility which is a major source subject to Subpart LLL to limit the opacity of its emissions to less than 10 percent.

40 CFR 63.1347

This establishes a 10% opacity limit (visible emission limit) for subject sources.

40 CFR 63.1348

This section establishes a 10% opacity limit (visible emission limit) for affected sources.

40 CFR 63.1349 (c)

This requires the owner or operator to repeat performance tests every five years.

40 CFR 63.1349 (d)

Performance tests required under paragraph (b)(3) of this section shall be repeated every 30 months.

40 CFR 63.1349 (e)

This section requires the owner or operator to repeat performance tests within 90 days if a significant change in fuel or feed is used.

40 CFR 63.1350 (a) (4)

This condition applies to new or reconstructed raw material dryers and material handling sources.

40 CFR 63.1350 (b)

63.1350(b) specifies that failure to comply with the operations and maintenance plan is a violation.

40 CFR 63.1350 (c) (1)

This section requires the use of a continuous monitor for opacity and requires proper installation, maintenance, and calibration of this equipment.

40 CFR 63.1350 (c) (3)

This section specifies an averaging period for opacity readings. In this case the opacity is averaged over a 6 minute period and can not exceed 20%.

40 CFR 63.1350 (d) (1)

This regulation requires the owner or operator of a clinker cooler to monitor opacity at each point where emissions are vented from the clinker cooler. The owner or operator must install, maintain, calibrate and continuously operate a Continuous Opacity Monitor (COM) located at the outlet of the clinker cooler particulate matter control device to continuously monitor the opacity.

40 CFR 63.1350 (d) (3)

This regulation requires that the opacity from the clinker cooler must be controlled such that the 6-minute average opacity for any 6-minute block period does not exceed 10 percent. Any average opacity



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for a 6-minute block period that exceeds 10 percent will constitute a violation of the standard.

40 CFR 63.1350 (e)

This condition requires the facility to conduct visual inspections to see if any emissions are coming out of the mill sweep and air separator PMCD's of the plant. If emissions are visible from these areas of the plant, then the owner/operator is required to perform corrective actions that are outlined in the operation and maintenance plan and then within 24 hours perform a Method 9 analysis to determine the opacity of the emissions coming from these areas of the plant.

40 CFR 63.1350 (f)

The owner or operator of an affected source shall monitor D/F emissions by continuously monitoring and recording the exhaust gas temperature from various devices. The temperature monitor shall be calibrated and maintained to ensure accurate readings. Dioxins and furans (D/F) means tetra-, penta-, hexa-, hepta-, and octa- chlorinated dibenzo dioxins.

40 CFR 63.1350 (i)

The owner or operator subject to dioxin and furan emission limits under this subpart shall inspect the components of the combustion system at least once per year.

40 CFR 63.1350 (j)

This section requires the owner or operator of affected sources subject to opacity limitations to monitor opacity in accordance with the operation and maintenance plan prepared for the facility.

40 CFR 63.1350 (o)

This condition requires the owner or operator to obtain a certification from the supplier for each shipment of fly ash received to demonstrate that the fly ash was not derived from a source in which the use of activated carbon, or any other sorbent, is used as a method of mercury emissions control.

40 CFR 63.1350 (p)

This condition requires any facility that opts to use a fly ash derived from a source in which the use of activated carbon, or any other sorbent, is used as a method of mercury emissions control to demonstrate that the use of this fly ash does not increase mercury emissions. They must obtain daily fly ash samples, composites monthly, and analyze the samples for mercury

40 CFR 63.1353

Notification requirements including performance tests, visible emission observations, and compliance status, among other things, are specified in this section.

40 CFR 63.1354

The owner or operator of affected facilities have to comply with the reporting requirements of this section. These reporting requirements outline what information needs to be provided in the reports, and when the reports need to be submitted.

40 CFR 63.1355

Recordkeeping requirements specify that the owner or operator shall maintain files of all required information on site for inspection and review purposes. Generally, the files are kept for a minimum of five years.

40 CFR 63.1356

With some exceptions, any affected source subject to these provisions is exempt from 40 CFR part 60,



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subpart F.

6 NYCRR 201-6.5 (f)

This regulation defines in general terms under what circumstances changes would be allowed without a permit modification provided the permit contains sufficient operational flexibility provisions.

6 NYCRR 201-7.1

This regulation sets forth an emission cap that cannot be exceeded by the facility. In this permit that cap is

6 NYCRR 202-1.2

This regulation specifies that the department is to be notified at least 30 days in advance of any required stack test. The notification is to include a list of the procedures to be used that are acceptable to the department. Finally, free access to observe the stack test is to be provided to the department's representative.

6 NYCRR 202-1.3 (a)

This regulation requires that any emission testing, sampling and analytical determination used to determine compliance must use methods acceptable to the department. Acceptable test methods may include but are not limited to the reference methods found in 40 CFR Part 60 appendix A and Part 61, appendix B. In addition, unless otherwise specified, all emission test reports must be submitted within 60 days after completion of testing.

6 NYCRR 204-1.6

This condition requires the designated representative of the permittee to make submissions for the NOx Budget Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

6 NYCRR 204-2.1

This condition states the submission requirements for the NOx Budget Trading Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

6 NYCRR 204-4.1

This condition covers the compliance certification report requirements for the NOx Budget Program.

6 NYCRR 204-7.1

This condition lists the requirements for transfer of allowances in the NOx Budget Program.

6 NYCRR 204-8.1

This condition lists the general requirements for the NOx Budget trading program. They include, but are not limited to monitoring requirements, certification, record keeping and reporting.

6 NYCRR 204-8.2

This condition covers the procedures for initially certifying and recertifying the monitoring systems of the unit meet the requirements of the NOx Budget Program

6 NYCRR 204-8.3

This condition states the requirements for data substitution during times when the monitoring systems to not meet applicable quality assurance requirements.



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6 NYCRR 204-8.4

This condition lists the addresses where monitoring plans and their modifications, compliance certifications, recertifications, quarterly QA/QC reports and petitions for alternative monitoring shall be sent.

6 NYCRR 204-8.7

This condition is a requirement for monitoring and reporting if a particular monitoring scenario is utilized.

6 NYCRR 212.11

This section sets the requirements for sampling, monitoring, record-keeping, and reporting from process sources.

The Department is requiring Lafarge to use a slurry-based mass balance approach to determine the total annual mercury emissions in the most accurate, verifiable, and cost effective way possible. Cement kilns do not emit mercury uniformly, the single-short term or “snap shot” data obtained from an annual stack testing permit requirement was thought to be not indicative of the long term performance or emissions from Lafarge’s kilns. Lastly, due to the high costs of regular periodic stack testing, it was determined that testing using this method would be too infrequent to provide reasonable and sufficient assurance of continuing compliance with the mercury emissions cap.

The Department believes that the agreed upon slurry-based mass balance methodology is preferable as it reduces the potential for variability and error by decreasing the number of samples required when compared with the other mass balance approach studied, which required the mercury content analysis of each individual solid raw material and fuel. The slurry based method improves the accuracy of estimating mercury emissions on a continuous basis by measuring the mercury content of the slurry itself, which includes the mercury contributions from all raw materials.

6 NYCRR 212.3 (a)

This rule requires compliance with the degree of control specified in Tables 2, 3 and 4 for existing (on or before July 1, 1973) process emission sources.

6 NYCRR 212.4 (a)

This rule requires compliance with the degree of control specified in Tables 2, 3 and 4 for new (after July 1, 1973) process emission sources.

6 NYCRR 212.6 (a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

6 NYCRR 212.9

This section of the regulation contains the descriptions and definitions of the environmental ratings system and the tables which set the emission limit for each rating.

Because mercury is one of the most serious environmental contaminants, the Department works to reduce the use and all environmental releases of mercury. The Department, by necessity, takes a multi-discipline approach to managing mercury. Many Department program areas share responsibility for environmental protection on mercury issues— from educating the public about mercury issues, regulating mercury air emissions, and remediating and preventing mercury spills, to regulating the



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management of mercury containing packaging and products and assisting businesses in finding mercury-free alternatives—to reduce the amount of mercury entering the environment. The Department also monitors water and air concentrations and measures mercury in fish and wildlife to ensure the protection of public health and New York's natural resources.

The Department has established a multidisciplinary Mercury Work Group which is charged with evaluating all possible measures to reduce the release of mercury into the environment, as well as providing outreach and education on the importance of minimizing human and environmental exposure to all chemical forms of mercury. The Department also participates with the Northeast States and Great Lake States Regional Collaborations to develop regional strategies to reduce the amount of all forms of mercury released to the environment.

The Department has adopted a number of regulations since 2000 to reduce mercury emissions from anthropogenic sources. In September 2002, the Department adopted revisions to 6 NYCRR Part 219—Incinerators, to reduce mercury emissions from incinerators and municipal waste combustors. In December 2006, the Department adopted 6 NYCRR Part 246, the Mercury Reduction Program for Coal-Fired Electric Utility Steam Generating Units. These actions have resulted in significant reductions in mercury emissions within New York.

Emissions of mercury from the kilns at the Lafarge Ravena facility, which include elemental mercury, oxidized mercury, and particle bound mercury, are currently the second largest source of mercury in New York State. Accordingly, the Department has determined, pursuant to the authority granted it by 6 NYCRR 212 to assign an environmental rating of "A" which, under 6 NYCRR Part 212.9, requires the "degree of air cleaning shall be specified by the Commissioner." An "A" rated contaminant is by definition one whose discharge results, or may result, in serious adverse effects on receptors or the environment. These effects may be of a health, economic or aesthetic nature or any combination of these. The assignment of an "A" rating removes the control of mercury emissions from Part 220 applicability, as provided in Subdivision 212.7(b).

In 2008, the Department required Lafarge to undertake a comprehensive study at their Ravena, New York facility to determine the origins of the mercury emissions and the chemical form of the mercury emitted. The purpose of this study was to identify the contribution of mercury from each individual raw material to the total emissions of mercury emitted during the Portland cement manufacturing process. The study required Lafarge to quantify the mercury content of raw material and fuels, as well as the concentration and species of mercury in the stack emissions. The undertaking of this study was the first of its kind and Lafarge worked closely with the Department to develop an approvable protocol for this study. The protocol was approved by the Department on March 19, 2008.

The study involved four separate sampling events that took place between May 6, 2008 and November 7, 2008. One event involved sampling of raw materials and fuels; three events involved the sampling of raw materials, fuels and measurement of the individual chemical species of mercury emitted from the kiln stack. A draft report entitled "Report on the Voluntary Effort to Assess the Sources and Distribution of Mercury Lafarge Building Materials, Inc. Ravena Cement Plant Ravena, New York" was provided to the Department in late December 2008 for review and comment. The final report was submitted to the Department on April 2, 2009. After a critical review of the information presented by Lafarge in their Study, the Department concluded that the mercury emissions from the kiln stack at the Lafarge Ravena facility should be capped by imposing a facility-wide annual mercury air emissions limit of 176 lbs as specified in this permit.

The limit of 176 lbs per year was derived from the slurry-based mass balance results contained in Lafarge's 2008 Mercury Emissions Study. This emission cap was derived by dividing all mercury



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entering the kiln through the fuels and slurry, by the production rate during the test, and multiplying it by a production rate of 85% of capacity. This limit is designed to provide for two standard deviations above that average to ensure that random variability of the test methods does not cause a violation when the true mercury rate is compliant. This emission cap limit also takes into account expected variabilities in production levels throughout the year and any potential fluctuations in mercury content of the raw materials. The net effect is that Lafarge will be able to operate at higher production rates during the year if necessary, but the facility will have to carefully select and monitor its use of fuels and raw materials in order to comply with this annual emission limitation.

The Department believes this annual mercury emission limit will adequately be protective of public health and the environment until Lafarge completes construction of the new dry kiln in Ravena, or installs required emission controls to the existing kilns, or, if necessary, shuts the Ravena facility down. The Department is also mindful of the reduction of mercury emissions that will be required when proposed federal standards for Portland Cement Plants are finalized by the USEPA.

6 NYCRR 220.2 (b)

The particulate emission rate from a portland cement kiln or clinker cooler may not exceed in 0.05 grains per standard cubic foot of gas on a dry basis for a process weight per hour in excess of 100,000 pounds.

6 NYCRR 220.4 (c)

Corrective measures must be applied to any area, parking lot, clinker gallery, railcar loading shed, conveyor tunnel, access road, stockpile, building opening or refuse disposal area, at a portland cement plant that has the potential to emit visible emissions for one continuous hour or longer

6 NYCRR 220.5 (a)

The owner or operator of any portland cement dust dump will operate such dust dump in a manner which will minimize the horizontal dimensions of the working face.

6 NYCRR 220.5 (b)

In cases where the dump is within 1,500 feet of any receptor, the owner and/or operator must seal the dust dump either by crusting or backfill twice yearly.

6 NYCRR 220.5 (c)

If dumping procedures do not provide adequate protection from dust reentrainment, the owner and/or operator must install a windbreak. If visible emissions still reach the property line, the owner and/or operator must precondition the waste dust.

6 NYCRR 220.6 (a)

A portland cement kiln may fire fuel which exceeds the fuel sulfur limitations of Part 225 provided it can be demonstrated that the resultant sulfur dioxide emissions that occur do not exceed the rate that would result through the use of fuels which meet the limits mandated by Part 225. (NOTE: This may be allowed because a certain amount of sulfur is retained in the clinker and is not emitted



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into the atmosphere)

6 NYCRR 220.6 (b) (1)

A compliance plan identifying reasonably available control technology (RACT) for NOx emissions from kilns must be submitted by 10/20/94. If the kiln(s) do not have RACT, a schedule for installation must be included in the plan. RACT must be implemented by 5/31/95.

6 NYCRR 220.8 (a)

Records of daily production rates, kiln feed rates, and any particulate emission measurements for any portland cement kiln or clinker cooler must be maintained on site for at least 3 years following acquisition of the data and be available for inspection. Production and feed rates should be summarized monthly.

6 NYCRR 225-1.2 (a) (2)

This regulation prohibits any person from selling, offering for sale, purchasing or using any fuel which contains sulfur in a quantity exceeding the limitations set forth in Table 1, Table 2, or Table 3 of this section.

6 NYCRR 225-1.8

This regulation requires an owner or operator of a facility which purchases and fires coal and/or oil to submit reports to the commissioner containing fuel analysis data, information on the quantity of the fuel received, burned, and results of any stack sampling, stack monitoring and any other procedures to ensure compliance with the provisions of 6 NYCRR Part 225-1.

Compliance Certification

Summary of monitoring activities at LAFARGE BUILDING MATERIALS INC:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring

0-41000/43101/K12	81	record keeping/maintenance procedures
0-41000/43101/K12	82	continuous emission monitoring (cem)
0-41000/43101/K12	83	record keeping/maintenance procedures
0-41000/43101/K12	84	intermittent emission testing
0-41000/43101/K12	85	monitoring of process or control device parameters as surrogate
0-41000	68	intermittent emission testing
0-41000	69	monitoring of process or control device parameters as surrogate
FACILITY	37	monitoring of process or control device parameters as surrogate
FACILITY	38	monitoring of process or control device parameters as surrogate



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FACILITY	41	monitoring of process or control device parameters as surrogate
FACILITY	23	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	26	record keeping/maintenance procedures
0-41000/43101/K12	74	continuous emission monitoring (cem)
0-41000/43101/K12	75	record keeping/maintenance procedures
0-41000/43101/K12	76	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
0-41000	56	record keeping/maintenance procedures
0-41000	60	record keeping/maintenance procedures
0-41000	62	record keeping/maintenance procedures
0-41000	63	record keeping/maintenance procedures
FACILITY	101	record keeping/maintenance procedures
0-41000	103	monitoring of process or control device parameters as surrogate
FACILITY	30	record keeping/maintenance procedures
0-41000	102	monitoring of process or control device parameters as surrogate
0-41000	66	monitoring of process or control device parameters as surrogate
0-41000/43101/K12	78	continuous emission monitoring (cem)
0-41000/43101/K12	79	continuous emission monitoring (cem)
0-41000/43101/K12	80	record keeping/maintenance procedures
FACILITY	32	work practice involving specific operations
FACILITY	33	work practice involving specific operations
FACILITY	34	work practice involving specific operations
FACILITY	35	record keeping/maintenance procedures

Basis for Monitoring

Monitoring conditions in this permit modification are of 5 types:

1. Permit conditions with “Continuous Emission Monitoring (CEM)”: this type of monitoring involves the direct measurement of contaminant (or surrogate contaminant) emissions from an



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emission point using instrumentation which operates on a continuous basis.

The carbon monoxide 99 ton/yr cap CEMS monitoring, Part 204 and Part 220 RACT NO_x monitoring, and the kiln and clinker cooler opacity monitoring are this type of monitoring

2. Permit conditions with “intermittent emission testing”: this type of monitoring involves the direct measurement of contaminant (or surrogate contaminant) emissions from an emission point on a periodic basis.

The post TDF stack testing, 5 year kiln and clinker cooler particulate testing, 2.5 year kiln dioxin/furan testing are this type of monitoring. The 5 year 3 hour Method 9 observations of all emission points, the daily 6 minute Method 22 observations of the mills and the monthly 1 minute Method 22 observations of the material handling emission points are this type of monitoring.

3. Permit conditions with “monitoring of process or control device parameters as surrogate”: this type of monitoring involves the indirect measurement of emissions via monitoring of process or control device parameters and performance on a continuous or periodic basis.

The continuous monitoring of the kiln back end temperature is this type of monitoring.

4. Permit conditions with “work practices involving specific operations”: this type of monitoring involves activities where time of operation, thru put of product, thru put of raw material, or parameter of a process material thru put is being measured and represents an operating limit.

The 2.5/1.9/1.7 lb/mm BTU sulfur in fuel limits are this type of monitoring.

5. Permit conditions with “record keeping/maintenance procedures”: this type of monitoring refers to activities involving the upkeep of records to demonstrate compliance with a requirement or the application of maintenance procedures which may be necessary to maintain acceptable operations.

The remainder of the monitoring conditions involve this type of monitoring.