

REGULATORY ANALYSIS REPORT

Prepared for:

Lafarge Building Materials, Inc.
Ravena, New York

PN 050122.0164

Prepared by:

Environmental Quality Management, Inc.
Cedar Terrace Office Park, Suite 250
3325 Durham-Chapel Hill Boulevard
Durham, North Carolina 27707

April 13, 2009
(Revised July 2009)

CONTENTS

<u>Section</u>	<u>Page</u>
Tables	iii
1 Project Description.....	1
1.1 Plant Modernization.....	1
1.2 Air Quality Status of the Ravena Area	2
2 Emission Calculations and Netting.....	3
3 Applicable Regulations.....	7
3.1 New Source Performance Standards (NSPS) – 40 CFR Part 60	7
3.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs) - 40 CFR Part 63.....	8
3.3 Compliance Assurance Monitoring (CAM).....	8
3.4 New Source Review (NSR)	9
3.5 NYSDEC’s Emission Limiting Rules.....	10
4 Requested Permit Limits.....	12
4.1 Kiln/Raw Mill/Coal Mill/Alkali Bypass/Clinker Cooler Emission Limits.....	13
4.2 Finish Mills and Miscellaneous Baghouses.....	14
4.3 Fugitive Emissions.....	14
4.4 Throughput Limits	14
4.5 Fuel Limitations	15
4.6 Operating Restrictions	15

TABLES

<u>Number</u>		<u>Page</u>
2-1	Net Emission Changes from Lafarge Modernization Project	6

SECTION 1

PROJECT DESCRIPTION

1.1 Plant Modernization

Lafarge Building Materials, Inc. (Lafarge) is proposing the modernization of its cement manufacturing facility in the Town of Coeymans, New York (commonly known as the Ravena Plant). The proposed project involves replacing the two existing wet kilns and clinker coolers and includes the construction and operation of a single modern preheater/precalciner, kiln, in-line raw mill, and clinker cooler operation with future planned replacement and/or upgrade of existing cement grinding mills. All emissions from the new kiln system, including the alkali bypass and the clinker cooler, will be vented to the atmosphere through the main kiln stack. The new kiln system will be equipped with fabric filters or equivalent for particulate matter control; a wet scrubber or equivalent for sulfur dioxide (SO₂) control; and low-nitrogen oxide (NO_x) burners, a staged-combustion calciner, and selective non-catalytic reduction (SNCR) or equivalent for NO_x control.

Material handling systems and storage will be adjusted to transfer and store the raw and finish materials to and from the modernized production line. There are no physical changes anticipated in the quarry operation. The mode of transportation of raw materials or finished product coming in or out of the plant including the existing barge loading operation will also remain intact. Production is expected to be 8,818 short tons per day (tons/day) and 2.81 million short tons per year (tons/yr) of clinker and 3.22 million short tons/yr of cement and masonry products. Fuels will include coal, petroleum coke, fuel oil (virgin or used), whole or chipped tires and/or natural gas. The use of non-hazardous waste fuels may be considered at a later date and would be subject to additional solid waste and air permitting regulatory approval. The raw materials for clinker production may include, but are not limited to, limestone rock, bauxite, bottom ash and/or fly ash, iron, and other similar materials. Synthetic or natural gypsum and limestone will be milled with the clinker to produce cement.

The modernization project is planned as a phased construction project in 2 or more phases. The first phase, which includes the installation of the new kiln/cooler system, is expected to be completed by the end of 2014. The remaining phases are expected to be completed within 4 years of startup of the new kiln system. As required by the Federal Prevention of Significant Deterioration (PSD) rules at 40 CFR 52.21, construction will commence within 18 months of approval and construction will not be discontinued for more than 18 months between phases.

1.2 Air Quality Status of the Ravena Area

The Ravena area is in attainment with all the National Ambient Air Quality Standards (NAAQS) except for the 8-hour ozone standard. Also, because all of New York State is in the ozone transport region, volatile organic compounds (VOC) and nitrogen oxides (NO_x) are treated as nonattainment contaminants statewide. The existing Lafarge plant is considered a major facility for VOC and NO_x under Subpart 231-2 of New York's Air Resource rules (6 NYCRR Part 231). The facility is also considered a major source under the U.S. Environmental Protection Agency's (EPA's) PSD rules at 40 CFR 52.21. (Although New York has recently adopted its own PSD rules which became effective March 5, 2009, the EPA will also implement the PSD program in the State of New York until it approves New York's rules as a State Implementation Plan (SIP) revision). If the modification project proposed by Lafarge would result in a significant net emission increase of VOC or NO_x (40 tons/yr of either pollutant), the facility would be subject to the Nonattainment New Source Review (NNSR) requirements of Subpart 231-2. If the project would result in a significant net emission increase of any other PSD-regulated pollutant, the facility would be subject to the EPA PSD rules for that pollutant (or pollutants) and also to the new PSD rules for New York in Subpart 231-8. As indicated in Section 2, the project results in a significant net emission increase only for carbon monoxide (CO).

SECTION 2

EMISSION CALCULATIONS AND NETTING

For purposes of evaluating the air quality impacts of the Ravena Modernization Project, Lafarge has prepared the following emission estimates and analyses:

1. Baseline emissions of the current plant
2. Potential to emit (PTE) of the modified plant
3. Net emission increase (i.e., potential minus baseline).

The scope and approach to these estimates will generally be determined by the applicable requirements under Federal and State rules as discussed below.

Baseline Emissions

The pollutants covered in the PSD baseline inventory are the pollutants subject to the U.S. Environmental Protection Agency's (EPA's) Prevention of Significant Deterioration) rules at 40 CFR 52.21. As noted above, both the Federal and State PSD rules will be in effect until EPA approves New York's PSD rules as a SIP revision. The PSD-regulated pollutants at the Lafarge plant are: total particulate matter (PM); PM less than 10 micrometers in diameter (PM₁₀); PM less than 2.5 micrometers in diameter (PM_{2.5}); sulfur oxides (SO_x); nitrogen oxides (NO_x); carbon monoxide (CO); lead (Pb); and fluorides.

The procedure for estimating PSD baseline emissions under EPA's rules follows the requirements in 40 CFR 52.21. The baseline emissions from all stationary sources, which must include quantifiable fugitive emissions, can be based on the plant's actual emissions in any consecutive 24-month period in the last 10 years, as selected by Lafarge. Lafarge has selected August 2004 through July 2006 as the baseline period. The average clinker production during the baseline period was 1,722,837 tons per year (tons/yr). The actual emissions must be adjusted downward to reflect any applicable requirements during the baseline period that the plant had not yet complied with. As of the date of the permit application, no applicable requirements have

been identified that would mandate a downward adjustment. The average actual emissions during the baseline period were 11,825 tons/yr and 5,223 tons/yr for SO₂ and NO_x, respectively.

The pollutants potentially subject to NNSR under Subpart 231-2 (6 NYCRR) are VOC and NO_x. Other PSD-regulated pollutants are potentially subject to Subpart 231-8. Under Subparts 231-2 and 231-8, the baseline emissions are to be based on the most recent 2-year period unless another 2-year period (within the last 5 years) is shown to be more representative of normal operations. To simplify the analysis, Lafarge proposes to use 8/04-7/06 as the baseline period for all pollutants, since NO_x is a PSD pollutant (because the area is attainment for NO₂) as well as a nonattainment pollutant (as an ozone precursor).

PTE of the Modified Plant

The PTE is maximum plantwide stationary source emissions under the plant's physical and operational design after modification. This includes compliance with all applicable State and Federal requirements as well as any emission, throughput, or operating hour limits requested by Lafarge and included in a federally-enforceable air permit. The pollutants covered by the PTE inventory include the baseline pollutants discussed above plus applicable pollutants regulated under DEC's Guidelines for Control of Toxic Ambient Air Contaminants (TAACs) (Air Guide 1).

The list of 48 TAACs evaluated were determined by examining various references for toxic emission factors from Portland cement kilns, including EPA's AP-42, the Factor Information Retrieval (FIRE) System, EPA's Toxic Release Inventory (TRI) reporting guidance, and data from a 2004 source test on the existing kilns.

Consistent with DEC policy, the TAAC emissions analysis focuses on the new major emission source, the kiln stack. This is because the overwhelming majority of TAAC emissions from the plant are from the kiln stack and because the emission factors are specific to the kiln.

Both the baseline and the PTE inventory include all fugitive PM sources at the plant (e.g., process fugitives, paved and unpaved roads, and raw material storage piles) and condensable PM from the kiln stack.

Net Emission Increase

The applicability of certain State and Federal rules is contingent on whether the project results in a significant net emission increase as discussed below.

As noted above, the Ravenna area is in attainment with all the National Ambient Air Quality Standards (NAAQS) except for the 8-hour ozone standard. Also, because all of New York State is in the ozone transport region, VOC and NO_x are treated as nonattainment contaminants statewide. The existing Lafarge plant is considered a major facility for VOC and NO_x under Subpart 231-2 of New York's Air Resource rules (6 NYCRR Part 231) and for other PSD-regulated pollutants under Subpart 231-8. The facility is also considered a major source under EPA's PSD rules at 40 CFR 52.21. If the modification project proposed by Lafarge would result in a significant net increase of VOC or NO_x (40 tons per year of either pollutant), the facility would be subject to the Nonattainment New Source Review (NNSR) requirements of Subpart 231-2. If the project would result in a significant net increase of any other PSD-regulated pollutant (as defined in § 52.21 or Subpart 231-8), the facility would be subject to the EPA and New York PSD rules for that pollutant (or pollutants).

The determination as to whether there is a significant net emission increase for PSD pollutants is based on the procedures in 40 CFR 52.21 and Subpart 231-8. Under these procedures, the PTE emissions for existing sources that remain are adjusted downward to account for the emissions the units were capable of accommodating during the baseline period. The production the plant was capable of accommodating during the baseline period was 1.88 million tons/yr of clinker, a rate that was actually produced in the late 1990's (versus actual production of 1.72 million tons/yr from 8/04 to 7/06. The emissions from existing sources associated with this difference are subtracted from the PTE inventory for determining PSD applicability. This adjustment is not allowed for determining NNSR applicability under Subpart 231-2. In any case, this adjustment affects only PM, PM₁₀, and PM_{2.5} emissions, because there are no existing sources of other pollutants (e.g., SO₂, NO_x, VOC, and CO) that remain after completion of the project (i.e., the existing kilns will be shut down). The adjusted PTE emissions are compared to the baseline emissions, showing the decreases or increases for each pollutant as a result of the project.

Based on these procedures, there will be no significant net emission increase for any PSD-regulated pollutant except CO. Emissions of PM₁₀, PM_{2.5}, SO₂ and NO_x are expected to

decrease. No other PSD-regulated pollutants are emitted by the plant. Therefore, only the PSD requirements for CO will be triggered, as shown in Table 2-1. This involves a Best Available Control Technology (BACT) analysis for CO and an ambient air quality analysis.

TABLE 2-1. NET EMISSION CHANGES FROM LAFARGE MODERNIZATION PROJECT (SHORT TONS PER YEAR)

Pollutant	Baseline Actual Emissions (8/04-7/06)¹	Net Increase²	Significant Net Increase level	Triggers Major Source NSR?
PM	1069.0	13.5	25	No
PM ₁₀	821.0	-52.9	15	No
PM _{2.5}	558.8	-156.2	10	No
SO ₂	11,825.5	-9856.2	40	No
NO _x	5,223.0	1990.9	40	No
VOC	215.4	39.0	40	No
CO	965.9	2546.8	100	Yes
Lead	0.16	0.09	0.6	No
Fluorides	0.42	0.84	3	No

¹As defined at 40 CFR 52.21(b)(48) and Subpart 231-4.1 (b) (4).

²Determined under the hybrid test for PSD applicability of 40 CFR 52.21(a)(2)(iv) and Subpart 321-4.1 (b) (29) and (39).

SECTION 3

APPLICABLE REGULATIONS

3.1 New Source Performance Standards (NSPS) – 40 CFR Part 60

The currently applicable NSPS that will apply to the project are Subpart Y (Coal Preparation Plants) and Subpart OOO (Nonmetallic Mineral Processing Plants). As currently written, the NSPS for Portland cement plants (Subpart F) does not apply because the NESHAP (see below) applies instead per 40 CFR 63.1356 (a).

The affected Subpart Y facilities are the coal handling and storage. Per 63.1356 (b), conveying system transfer points used to convey coal from the mill to the kiln are exempt from Subpart Y. The coal mill will be vented through the main stack, which will be subject to the requirements of Subpart F discussed below. On April 28, 2008 and May 27, 2009, EPA proposed changes to Subpart Y which, once finalized, will apply to affected facilities commencing construction after April 28, 2008.

There will be a new secondary crusher and new limestone conveyors that will be subject to Subpart OOO. On April 28, 2009, EPA promulgated changes to Subpart OOO which lowered grain loading and opacity limits for affected sources commencing construction after April 22, 2008.

There will be no new storage tanks that would be subject to NSPS Subpart Kb.

On June 16, 2008, EPA proposed major changes to the NSPS for Portland Cement (PC) plants (Subpart F) which, when finalized, will apply to this project. Currently, the PC NSPS regulates only PM. The proposed NSPS changes would significantly reduce the PM emission limits for new or modified kilns and clinker coolers commencing construction after June 16, 2008. In addition, new or modified cement kilns would be subject to new limits for NO_x and SO₂ emissions.

3.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs) – 40 CFR Part 63

Lafarge expects that it will continue to be a major source of hazardous air pollutants (HAPs) and therefore subject to NESHAPs Subpart LLL (Portland Cement Manufacturing Plants). The kiln is subject to emission limits for PM (0.3 lb/ton of dry feed), dioxins and furans (D/F), mercury, and total hydrocarbons (see Section 4.1.7) and an opacity limit of 20 percent. The clinker cooler will be vented through the main kiln stack. The proposed Subpart F NSPS mass emission limits are more stringent than the NESHAP limits. All other stack and fugitive process sources, except those subject to the NSPS noted above, are subject to an opacity limit of 10 percent. There is no separate raw material dryer subject to the total hydrocarbon standard. Lafarge must be in compliance with these limits upon startup of the new equipment.

On May 6, 2009, the U.S. Environmental Protection Agency (EPA) proposed major revisions to the NESHAP for Portland cement plants. For new cement kilns, the proposed revisions would substantially tighten the current emission limits for mercury (roughly 90% lower), total hydrocarbons or THC (70% lower) and particulate matter (PM) (84% lower). New limits for HCl are proposed for both new and existing kilns. Continuous emission monitoring systems (CEMS) or equivalent are generally proposed for all pollutants. The new Lafarge kiln system will be subject to the limits for new kilns once they are finalized.

As required by 40 CFR 63.1350(a) and 63.6(e)(3), Lafarge must submit to the New York State Department of Environmental Conservation (DEC) a written operation and maintenance (O&M) plan and a startup, shutdown, and malfunction plan for the modified facility prior to commencing operation. Among other things, these plans will provide procedures for: proper O&M of the emission units and their control devices; corrective actions and measures to be taken to minimize emissions in cases of startup, shutdown, or malfunction; and procedures used in inspecting and monitoring the emission units and control equipment.

3.3 Compliance Assurance Monitoring (CAM)

The CAM rules at 40 CFR Part 64 apply to air pollution emission units that meet all the following criteria:

1. The unit is located at a plant that is subject to the Title V operating permit program.

2. The unit is subject to an emission limitation or standard under a State Implementation Plan (SIP) or EPA rule such as an NSPS.
3. The unit uses a control device to achieve compliance with the emission limitation or standard. A control device does not include passive control measures such as low-sulfur fuels, low-NO_x burners, or good operating practices.
4. The unit has potential emissions before the control device of the regulated pollutant(s) that are 100 percent or more of the major source thresholds, as defined under the Title V program.

There are several exemptions to CAM applicability, including the following types of emission standards or limitations:

- a) Standards proposed by EPA after November 15, 1990 [e.g., all Maximum Achievable Control Technology (MACT) rules and the proposed NSPS are exempt from the CAM requirements].
- b) Standards subject to a continuous compliance determination method (CCDM).

As indicated in Section 4.2.1, Lafarge is proposing that compliance with the PM control device grain loading limits be determined through compliance with the 10 percent opacity limits, and associated monitoring scheme, specified in 40 CFR Part 63, Subpart LLL. Thus, all PM emission limits for sources controlled by baghouses and for SO₂ and NO_x are exempt from CAM under a) above. The VOC and CO emission limits for the kiln system are not met by a control device and thus are not subject to CAM.

3.4 New Source Review (NSR)

As noted above, the project will trigger the PSD rules under 40 CFR 52.21, which requires the following analyses, for CO emissions only:

1. A Best Available Control Technology (BACT) analysis for each pollutant that exceeds the PSD major source thresholds.
2. A demonstration of compliance with the National Ambient Air Quality Standards (NAAQS).
3. An additional impacts analysis (potential impacts on soils, vegetation, visibility, and secondary growth).

As discussed in the Air Dispersion Modeling Protocol submitted to EPA and the DEC, for CO there are no PSD increments or impacts of concern in Class I areas (e.g., visibility impairment, sulfate/nitrate deposition) and thus no Class I impact analyses are required.

As part of the air permitting process, Lafarge must demonstrate compliance with DEC's Air Guide-1: Guidelines for the Control of Toxic Air Contaminants (TAACs) (DAR-1, 1991). DAR-1 provides Short-Term (1-h) Guideline Concentrations (SCGs) and Annual Guideline Concentrations (ACGs) for a long list of TAACs regulated by DEC (see Tab G).

3.5 NYSDEC's Emissions Limiting Rules

Several provisions of New York's air rules are applicable to the proposed Lafarge plant, although they are less stringent than the NSPS, NESHAP, or BACT requirements. Applicable provisions in 6NYCRR include:

- Part 204 – NO_x Budget Trading Program
- Subpart 211.3 – Visible Emissions
- Part 212 – General Process Emission Sources
- Part 220 – Portland Cement Plants
- Subpart 225-1 – Fuel Composition and Use – Sulfur Limitations
- Subpart 227-2 – Reasonably Available Control Technology (RACT) for NO_x.

Part 204 expands the number of sources in the NO_x Budget Trading Program by including cement manufacturing sources. The rule provides an allocation of NO_x allowances during the peak ozone season for all cement manufacturing facilities in the State. Allowances are provided based on maximum clinker production between 1996 and 1998 and a NO_x emission factor expressed in pounds of NO_x per ton of clinker. Five percent of the total allocation is reserved for new cement facilities that may locate or expand in New York State in the future. All facilities subject to the NO_x Budget process must submit a permit application for NO_x allocations by May 1, 2002. Facilities must install a Continuous Emissions Monitoring System (CEMS) to measure NO_x concentrations in the stack, calculate peak ozone season NO_x emissions, and to procure allowances, if necessary, to ensure that their allocation is not exceeded. If a facility emits more NO_x than it has allowances for, it must procure the requisite allowances to balance the account by November 30 for the previous peak ozone season. The Lafarge facility is subject to the NO_x Budget program.

Subpart 211.3 restricts sources to opacity of less than or equal to 20 percent, using a six minute average, except for one continuous six minute period per hour of not more than 57 percent opacity. The NESHAP limits are as, or more, restrictive than Subpart 211.3.

Part 212 specifies the degree of air cleaning required for gases and solid particulate emissions, which is a function of the environmental rating and the potential emission rate. Section 212.5(e) specifies that for process sources subject to Federal NSPS in 40 CFR part 60 or the NESHAPS in 40 CFR part 61, the requirements of Part 212 for the contaminant regulated by the Federal standard are satisfied if the source owner can demonstrate that the source is in compliance with the respective Federal regulation. As noted above, the Lafarge facility will be subject to NSPS and NESHAPs requirements. In addition, Lafarge has assessed toxic ambient air contaminants (“TAACS”) in accordance with DEC’s Policy DAR-1 Guidelines for the Control of Toxic Ambient Air Contaminants to determine the appropriate Environmental Rating and control requirements for all criteria and noncriteria pollutants regulated under 6 NYCPR Part 212 (see Tab G).

Part 220 limits PM emissions from kilns and clinker coolers to 0.3 and 0.1 lb/ton dry feed, respectively. The new NSPS will be considerably more stringent than these limits. Subpart 220.5 regulates PM emissions from cement dust landfills. The current cement kiln dust landfill is subject to this requirement. Subpart 220.6(b) requires Reasonably Available Control Technology (RACT) for NO_x emissions from cement kilns. The use of SNCR and compliance with the revised NSPS meets this requirement.

Subpart 225-1 (Table 2) specifies sulfur-in-fuel limits for oil and solid fuels in various areas of the State (e.g., in the Ravena area, solid fuels may not exceed the following sulfur limits in pounds per million Btu: 2.5 maximum; 1.9, 3-month average; or 1.5, annual average). However, Section 220.6 allows cement kilns to use higher sulfur fuels if the SO₂ emissions would not exceed the emission that would result from fuels otherwise mandated by Part 225. The requested SO₂ emission limit is equivalent to 0.23 lb sulfur per million Btu and will ensure compliance with this requirement.

Subpart 227-2 contains permitting, testing, monitoring and reporting requirements for sources subject to the RACT requirements determined under Subpart 220.6(b) (see above). The permit issued to Lafarge for this modification will ensure compliance with these requirements.

SECTION 4

REQUESTED PERMIT LIMITS

The permit limits, including the regulatory basis and the associated testing and monitoring requirements, being requested by Lafarge are discussed below. The requested limits are generally based on current requirements under the Clean Air Act (CAA); once proposed changes to NSPS and NESHAPS affecting the project are finalized, some of the requested limits may need to be changed to be consistent. Where there are multiple regulatory bases (e.g., BACT, NESHAPS, NSPS), the most restrictive limits that will ensure compliance with other applicable requirements are recommended. Lafarge requests elimination of multiple redundant forms of emission limits and throughput limits. The kiln emission limits below are applicable for all combinations of fuel to be burned. The emission limits proposed below for PM will ensure that the facility will net out of PSD for PM₁₀ and PM_{2.5}; thus, Lafarge requests that separate PM₁₀ or PM_{2.5} emission limits not be established.

Pursuant to current EPA guidance at 79 FR 20652 (April 25, 2007), Lafarge requests that the PM emission limits include filterable PM but not condensables. Based on experience with cement kilns, condensable emissions are site-specific and variable. In addition, EPA has indicated that additional time is needed to implement a program to assess and improve available test methods for condensable PM. Lastly, in EPA's proposed revisions to the PC NSPS, the Agency decided not to set separate limits for condensable PM, PM_{2.5}, or PM₁₀. Lafarge believes that these fractions of particulate matter will be adequately controlled if facilities are utilizing control equipment sufficient to meet the proposed Subpart F NSPS limits for PM, and indeed Lafarge is not aware of any demonstrated or emerging technology that would provide better control of PM_{2.5}, PM₁₀, or condensable PM emissions specifically. Lafarge also believes that there is insufficient data on the emissions of these fractions of particulate matter at cement plants or the demonstrated capability of various control technologies to meet any specified level of these fractions of particulate matter.

4.1 Kiln/Raw Mill/Coal Mill/Alkali Bypass/Clinker Cooler Emission Limits

4.1.1 PM

0.172 lb/ton clinker as determined by Method 5 test on the main kiln stack venting both the kiln system and the cooler every 5 years (sum of the kiln and cooler limits under the proposed Subpart F NSPS).

4.1.2 Opacity

Twenty percent as measured by continuous opacity monitor (COM) (NESHAP).

4.1.3 CO

2.5 lb/ton of clinker, 30-day rolling sum, as measured by CERM meeting Performance Specification (PS) 4B (BACT).

4.1.4 VOC (non-methane)

254.4 tons/yr, 12 month rolling sum as measured by CERM meeting PS 8 (Net out of NSR).

4.1.5 SO₂

1.4 lb/ton of clinker, 30-day rolling sum, as measured by CERM meeting PS 6 (Net out of PSD).

4.1.6 NO_x

2.3 lb/ton of clinker, 30-day rolling sum, as measured by CERM meeting PS 6 (Net out of NSR).

4.1.7 Dioxins/Furans

0.4 ng/dscm (TEQ) corrected to 7 percent oxygen as measured by Method 23 initially and every 30 months (NESHAP). The average temperature during the test may not exceed 204°C (400°F).

4.1.8 THC and Mercury

THC: 20 ppmv, 1-hour block average, as measured by CEM meeting PS 8A (NESHAP).

Hg: 41 µg/dscm, as measured by Method 29 (NESHAP).

Both limits corrected to 7 percent oxygen.

4.1.9 TAACs

Because Lafarge has demonstrated in this application (Tab G) compliance with the ACGs and SGCs for various TAACs and the NSPS and NESHAP requirements directly or indirectly (via surrogates such as PM for TAAC metals and THC for TAAC organics), Lafarge requests that no additional emission limits be set for individual TAACs.

4.2 Finish Mills and Miscellaneous PM Control Devices (Existing and New)

4.2.1 PM

New or modified: 0.008 gr/scf (PSD avoidance).

Existing remaining baghouses: 0.01 gr/acf (Net out of PSD), both determined by implementation of 10 percent opacity limit (see below). Lafarge will develop and implement a baghouse improvement program to upgrade each existing baghouse from 0.02 gr/dscf to 0.01 gr/dscf (or the equivalent lb/hr used in the netting analysis). The changes may include modification of operating or maintenance practices, air-to-cloth ratios, cleaning cycles or fabric media specification.

4.2.2 Opacity

Ten percent as determined by initial and every 5 year Method 9 test and monitoring scheme under 40 CFR 63.1350.

4.3 Fugitive Process Emissions

- 10 percent opacity (NESHAP Subpart LLL).

-7 percent opacity for all new sources subject to Subpart OOO, except new secondary crusher (12% Subpart OOO NSPS).

4.4 Throughput Limits

A throughput limit is needed to limit the potential to emit (PTE) for sources that are subject to lb/ton emission limits (e.g., the kiln and clinker cooler) and for sources that are not effectively limited by the emission limits outlined above (e.g., fugitive process sources). Throughput limits are not needed for other miscellaneous point sources. For example, the handling of cement controlled by new baghouses would be permitted at 0.008 gr/scf and 8760

h/yr. This defines the PTE for these sources and thus a cement throughput limit would not be necessary or appropriate. Lafarge requests a throughput limit of 2.81 million short tons/yr clinker, rolling 12-month sum. The clinker throughput limit effectively limits the throughput of the raw materials required for production.

4.5 Fuel Limitations

Emissions of NO_x, SO₂, CO, and VOC will be monitored by CERM, and there is little relationship between the sulfur and nitrogen content of kiln/calcliner fuels and resulting emissions. The clinker production limit effectively limits the total quantity of fuel required. Because of these reasons, Lafarge requests that no limits be set on the amount or quality of the fuels to be burned.

4.6 Operating Restrictions

The netting analysis includes the following elements of the design of the plant which should be included in the permit: only 12 of the 20 clinker reclaim dust collectors operate at once and only one of 2 blend silo feed bucket elevators and one of 2 preheater feed bucket elevators and associated dust collectors operate at once. The kiln system and all other new sources are assumed to operate continuously (8760 h/yr) for purposes of this application. The operating hours for existing unmodified sources are based on the definition of “projected actual emissions” at 40 CFR 52.21 (b) (41).